



DOMINION ENERGY SOUTH CAROLINA

WATEREE STATION ASH POND

RICHLAND COUNTY, SOUTH CAROLINA

US EPA CCR RULE COMPLIANCE

2022 CCR ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

January 31, 2023



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*TRC Environmental Corporation | Dominion Energy South Carolina
Wateree Station Ash Pond
2022 Annual Groundwater Monitoring and Corrective Action Report*

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Executive Summary

Dominion Energy South Carolina (DESC) operated a coal ash surface impoundment (Ash Pond) (Unit) for the management of coal combustion residuals (CCR) at the Wateree Generating Station (Station) located in Eastover, Richland County, South Carolina. Historically, the Unit received low volume wastewater and sluiced bottom ash and fly ash generated from the combustion of coal at the Station. In accordance with the 2013 Closure Plan, coal ash and the underlying two feet of soil was removed from the Unit via excavation and subsequently backfilled with clean fill. Complete removal of CCR material was completed in September 2019. Management of the Unit is performed pursuant to national criteria established in Title 40 of the Code of Federal Regulations (40 CFR), Part 257 (CCR Rule), effective April 19, 2015, and subsequent revisions to the CCR Rule. Pursuant to the CCR Rule, the Station operator is required to complete an *Annual Groundwater Monitoring and Corrective Action Report* for the Unit by January 31st, annually.

This report documents the status of the CCR groundwater monitoring program for the Unit, summarizes key actions completed, describes issues encountered, actions taken to resolve identified concerns, and planned key activities for the upcoming year.

In accordance with 40 CFR Part 257.90(e)(6), the following information is being provided as an overview of the current status of groundwater monitoring and corrective action for the Unit:

- i. At the start of the current annual reporting period, indicate whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.*
 - At the start of 2022, the Unit was operating under the assessment monitoring program in accordance with §257.95.
- ii. At the end of the current annual reporting period, indicate whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.*
 - At the end of 2022, the Unit was operating under the assessment monitoring program in accordance with §257.95.
- iii. If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to §257.94(e).*
 - a. Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase.*

- In 2022, there were statistically significant increases above site-specific background levels for the following Appendix III constituents at the following wells:
 - Boron – wells MW-AP-01, MW-AP-02, MW-AP-03, and MW-AP-04
 - Calcium – wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08
 - Chloride – wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08
 - Fluoride – wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, and MW-AP-08
 - pH – wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08
 - Sulfate – wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08
 - Total Dissolved Solids – wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08

b. Provide the date when the assessment program was initiated for the CCR unit.

- The Unit initiated the assessment monitoring program in March 2018.

iv. If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to §257.95(g).

a. Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase.

- In 2022, there were statistically significant levels over the groundwater protection standard for the following Appendix IV constituents at the following wells:
 - Arsenic – MW-AP-02, MW-AP-03, and MW-AP-04
 - Lithium – MW-AP-03

b. Provide the date when the assessment of corrective measures was initiated for the CCR unit.

- The Unit initiated assessment of corrective measures in November 2018.

- c. *Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.*
 - A public meeting has not been held yet for the assessment of corrective measures.
- d. *Provide the date when the assessment of corrective measures was completed for the CCR unit.*

The Unit completed the assessment of corrective measures in June 2019.

- v. *Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of the remedy selection.*
 - A remedy was not selected during the current annual reporting period.
- vi. *Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.*
 - Remedial activities were not initiated or are not ongoing during this current annual reporting period.

Section 1

Introduction

This *2022 CCR Annual Groundwater Monitoring and Corrective Action Report* (Report) was prepared on behalf of Dominion Energy South Carolina (DESC) for the former coal ash storage pond (Ash Pond) (Unit) at the Wateree Generating Station (Station) located in Eastover, Richland County, South Carolina. The Unit received low volume wastewater and sluiced bottom ash and fly ash generated from the combustion of coal at the Station. In accordance with the 2013 Closure Plan, coal ash and the underlying two feet of soil was removed from the Unit via excavation and subsequently backfilled with clean fill. Closure of the Unit was completed in September 2019. Management of the Unit is performed in accordance with the national criteria established by the CCR Rule.

DESC installed a groundwater monitoring system at the Unit that is subject to the groundwater monitoring and corrective action requirements provided under 40 CFR §257.90 through §257.98. In accordance with 40 CFR §257.90(e), DESC must prepare an annual report that provides information regarding the groundwater monitoring and corrective action program at the Unit. This Report provides the monitoring and corrective action data and data evaluations for the semiannual CCR monitoring compliance events performed in March and September 2022.

1.1 Site Location

The Station is operated by DESC and is located at 142 Wateree Station Road in Richland County, South Carolina (**Figure 1**). The Station is located approximately 5 miles southeast of Eastover, South Carolina. The Unit is located on the southern portion of the Station property approximately 1,000 feet from the generating plant.

1.2 Site History

The Wateree Generating Station is a coal-fired steam electric power generating facility. The facility includes two identical coal-fired generating units. Units 1 and 2, which began operation in 1970 and 1971, respectively. Each unit has a gross generating capacity of 372 megawatts. Both generating units are categorized as base load units.

The Station consists of a former coal ash storage pond (Ash Pond) (Unit), a polishing pond (previously Ash Pond 2), a flue gas desulfurization (FGD) pond, and a Class III Industrial Landfill (Landfill). The Unit previously received both bottom ash and coal ash. Since 2013, ash generated at the Station has been either disposed of in the Landfill or sold and transported offsite to the cement industry.

The Station has three units regulated under the CCR Rule which include the FGD Pond, the Ash Pond (Unit), and the Landfill. **Figure 1** illustrates the locations of these CCR units. Additionally, the Unit is monitored and permitted under a National Pollutant Discharge System (NPDES) permit issued by South Carolina Department of Health and Environmental Control (SCDHEC).

1.3 Key Actions

Key actions for the Unit to date are as follows:

- Permitted for management of CCR by SCDHEC under NPDES permit No. SC0002038.
- Initiated the Detection Monitoring Program (DMP) on May 11, 2016, with the collection of eight (8) baseline/background samples and completed the background monitoring activities on July 10, 2017, pursuant to 40 CFR §257.94(b).
- Conducted the initial DMP compliance sampling event on September 26, 2017, pursuant to 40 CFR §257.94.
- Placed a copy of the Ash Pond's Groundwater Monitoring Plan (GMP) documenting the design information for the monitoring wells pursuant to 40 CFR §257.91(e)(1) in the Station's operating record on October 17, 2017, pursuant to 40 CFR §257.105(h)(2).
- Certified the groundwater monitoring system pursuant to 40 CFR §257.91(f) and posted the Certification in the Station's operating record on October 17, 2017, pursuant to 40 CFR §257.105(h)(3).
- Certified the selection of a statistical method pursuant to 40 CFR §257.93(f)(6) and posted the Certification in the Station's operating record on October 17, 2017, pursuant to 40 CFR §257.105(h)(4).
- Placed a notification of a Statistically Significant Increase (SSI) over the Ash Pond's background concentrations under the DMP in the Station's operating record in January 2018.
- Conducted the initial Assessment Monitoring Program (AMP) compliance sampling event on March 5-6, 2018, pursuant to 40 CFR §257.95(b).
- Established groundwater protection standards (GWPS) for detected constituents in Appendix IV of Part 257 on October 17, 2018, pursuant to 40 CFR §257.95(d)(2).
- Background concentrations of Appendix III and IV constituents were updated using United States Environmental Protection Agency-approved statistical procedures in August 2021.
- In accordance with 40 CFR §257.95(e), semiannual assessment monitoring was performed during March and September of 2022 for analysis of the CCR Rule Appendix III and Appendix IV constituents.

- The first semiannual 2022 assessment monitoring was performed during March 2022. Based on statistical evaluation of the data, there were Statistically Significant Levels (SSLs) over groundwater protection standards (GWPS) for the following Appendix IV constituents at the following wells:
 - Arsenic – MW-AP-02, MW-AP-03, and MW-AP-04
 - Lithium – MW-AP-03
- As required by 40 CFR §257.105(h)(8), notification of GWPS exceedances for arsenic and lithium was posted in the Station’s operating record on July 29, 2022.
- The second semiannual 2022 assessment monitoring was performed during September 2022. Based on statistical evaluation of the data, there were SSLs over GWPS for the following Appendix IV constituents at the following wells:
 - Arsenic – MW-AP-02, MW-AP-03, and MW-AP-04
 - Lithium – MW-AP-03
- As required by 40 CFR §257.105(h)(8), a notification of GWPS exceedances for arsenic and lithium will be posted in the Station’s operating record during the first quarter of 2023.
- The Unit remained in assessment monitoring for the duration of 2022.

1.4 Monitoring Program Concerns

There were no monitoring program concerns identified during 2022.

Section 2

Site Information

2.1 Monitoring Well Network

Groundwater monitoring wells (MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, and MW-AP-05) were installed in March 2016 at the Unit to serve as the EPA CCR Compliance Monitoring Well Network. Existing monitoring wells MW-AP-01A and MW-AP-08, utilized for other monitoring programs for the Unit, were incorporated into the CCR Compliance Monitoring Well Network in May 2016.

In March 2018, Assessment Monitoring at the Unit was initiated due to detections of Appendix III constituents over site background levels during the second 2017 semiannual detection monitoring program (DMP) event. In accordance with the requirements of 40 CFR Part 257.95(g)(1), a Release Characterization was subsequently initiated in November 2018 due to detections of Appendix IV constituents over the GWPS. As part of the Release Characterization, an additional ten groundwater monitoring wells were installed in the vicinity of the Unit in November/December 2018 and February 2019. The additional monitoring wells included five shallow (MW-AP-09, MW-AP-10, MW-AP-11, MW-AP-12, and MW-AP-13) and five deep (MW-AP-03D, MW-AP-03D2, MW-AP-09D, MW-AP-11D, and MW-AP-11D2) monitoring wells.

The Compliance Monitoring Well Network currently consists of one upgradient monitoring well (MW-AP-01A) to monitor background groundwater quality entering the surficial aquifer of the Unit and six downgradient monitoring wells (MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08) that serve to monitor groundwater quality downgradient of the Unit. The distribution and location of the EPA CCR Compliance Monitoring Well Network and assessment monitoring support wells is presented in **Figure 2**.

2.2 Monitoring Well Installation and Decommissioning Activities

DESC did not install new wells or decommission existing wells in the certified groundwater monitoring system during 2022.

2.3 Groundwater Potentiometric Surface Evaluation

Current and historical static water level data for the Station are summarized in **Table 1**. Per requirements of the CCR Rule 40 CFR 257.93(c), the rate and direction of groundwater flow within the uppermost aquifer beneath the Unit must be determined after each sampling event. Groundwater potentiometric surface maps were prepared using water level data obtained from both semiannual sampling events in

March and September 2022. Using the groundwater contours from March (**Figure 3**) and September (**Figure 4**), the average horizontal hydraulic gradient was calculated using the following equation:

$$i = (h^1 - h^2)/S$$

Where:

i = horizontal hydraulic gradient (unitless)

h^1 = water elevation in well 1 (feet)

h^2 = water elevation in well 2 (feet)

S = horizontal distance between well 1 and well 2 (feet)

The groundwater seepage velocity was calculated using the following formula:

$$Vs = ki/n_e$$

Where:

Vs = Groundwater seepage velocity (feet/day)

k = hydraulic conductivity (feet/day)

i = horizontal hydraulic gradient (unitless)

n_e = effective porosity (percent)

The result for each semiannual event is presented separately in Sections 2.3.1 and 2.3.2. As presented, the estimated groundwater seepage velocity in the uppermost aquifer beneath the Unit is between 74 to 116 ft/year. Furthermore, the overall interpreted data indicates that the groundwater flow direction and velocity remain consistent with previous calculations for the Unit. The groundwater monitoring network continues to monitor the uppermost aquifer in accordance with the CCR Rule.

2.3.1 First Semiannual 2022 Assessment Monitoring Program

The groundwater potentiometric surface map for March 2022 is presented in **Figure 3**. Using an estimated effective porosity value of 24% and estimated average hydraulic conductivity value of 8.07 ft/day, the average rate of groundwater flow for the uppermost aquifer beneath the Unit was calculated to be 74.20 ft/year.

Well 1	Well 2	h ¹ (ft)	h ² (ft)	S (ft)	i	K (ft/day)	n_e	Vs (ft/day)	Vs (ft/yr.)
MW-AP-13	MW-AP-05	94.17	91.06	1,140	0.0027	8.07	24	0.0917	33.48
MW-AP-09	MW-AP-12	94.73	90.32	1,230	0.0036			0.1205	44.00
MW-AP-08	MW-AP-05	95.97	91.06	450	0.0109			0.3669	133.90
MW-AP-03	MW-AP-11	90.79	89.92	125	0.0070			0.2340	85.41
1) Hydraulic conductivity and effective porosity values from February 2021: Analysis of Groundwater Flow Rate and Direction – Ash Pond Wells (Nautilus 2021).						Average		0.2033	74.20

2.3.2 Second Semiannual 2022 Assessment Monitoring Program

The groundwater potentiometric surface map for September 2022 is presented in **Figure 4**. Using an estimated effective porosity value of 24% and estimated average hydraulic conductivity value of 8.07 ft/day, the average rate of groundwater flow for the uppermost aquifer beneath the Unit was calculated to be 116.20 ft/year.

Well 1	Well 2	h ¹ (ft)	h ² (ft)	S (ft)	i	K (ft/day)	n _e	V _s (ft/day)	V _s (ft/yr.)	
MW-AP-13	MW-AP-05	91.78	81.38	1,140	0.0091	8.07	24	0.3067	111.96	
MW-AP-09	MW-AP-12	91.86	86.64	1,230	0.0042			0.1427	52.08	
MW-AP-08	MW-AP-05	86.36	81.38	450	0.0111			0.3721	135.81	
MW-AP-03	MW-AP-11	87.82	86.14	125	0.0134			0.4519	164.94	
1) Hydraulic conductivity and effective porosity values from February 2021: Analysis of Groundwater Flow Rate and Direction – Ash Pond Wells (Nautilus 2021).							Average		0.3181	116.20

Section 3

Field Activities

CCR-related groundwater sampling activities that occurred during 2022 are summarized in the following sections.

3.1 Compliance Monitoring Program Sampling Activities

As per 40 CFR §257.95, two semiannual AMP events were completed for the constituents and parameters listed in Appendix III and Appendix IV of the CCR Rule. Summaries of the 2022 AMP sampling events are presented below.

2022 MONITORING EVENT	SAMPLE DATES	FINAL LABORATORY PACKAGE RECEIPT DATE
First Semiannual Assessment Monitoring Program Event	March 15-18, 2022	March 31, 2022
Second Semiannual Assessment Monitoring Program Event	September 6, 8, and 13, 2022	September 27, 2022

During each of the AMP sampling events, the compliance monitoring wells were sampled in accordance with the Station's Groundwater Monitoring Program (GWMP).

Samples collected during the semiannual sampling events were submitted to GEL Laboratories (GEL) in Charleston, South Carolina under proper chain-of-custody procedures. GEL is an accredited laboratory for analysis of CCR Rule constituents (GEL certification #10120001 and #10120002).

Section 4

Laboratory Analytical Results

Laboratory analytical results from the AMP sampling events conducted in 2022 are summarized in the following sections.

4.1 First Semiannual 2022 Assessment Monitoring Program Event

The groundwater samples collected during the first semiannual AMP event were analyzed by GEL for the constituents and parameters listed in Appendix III and Appendix IV of the CCR Rule. The laboratory certificates of analysis, chain-of-custody forms, and field notes for the sampling event are presented in **Appendix A**. A summary of the CCR sampling data for the Unit is included in **Table 2**.

4.2 Second Semiannual 2022 Assessment Monitoring Program Event

The groundwater samples collected during the second semiannual AMP event were analyzed by GEL for constituents and parameters listed in Appendix III and Appendix IV of the CCR Rule. The laboratory certificates of analysis, chain-of-custody forms, and field notes for the sampling event are presented in **Appendix B**. A summary of the CCR sampling data for the Unit is included in **Table 3**.

Section 5

Data Quality Validation

Third-party data validation services were provided by Environmental Standards, Inc. for the AMP sampling events. The reviews were performed with guidance from the USEPA data validation guidelines and in accordance with the Station's GWMP. A discussion of the findings is presented below.

5.1 First Semiannual 2022 Compliance Event Findings

The following field QA/QC samples for this event included:

- One blind duplicate sample was collected from the MW-AP-08 location on March 16, 2022.
- Additional sample volume was collected at MW-AP-01A on March 16, 2022, to allow for the laboratory to conduct a matrix spike (MS) and matrix spike duplicate (MSD) quality control check.
- A field blank was collected in the area of MW-AP-09D on March 17, 2022, using laboratory provided deionized water. The field blank was used to assess for potential contaminants from field conditions during sampling activities.

These QA/QC samples were analyzed for the same constituents as the groundwater samples. Based on review of the laboratory-provided QC data and Environmental Standards recommendations, the data for this sampling event were determined to meet the data quality objectives for the project. A copy of the data validation report is included in **Appendix A**.

5.2 Second Semiannual 2022 Compliance Event Findings

The following field QA/QC samples for this event included:

- One blind duplicate sample was collected from the MW-AP-01 location on September 13, 2022.
- Additional sample volume was collected at MW-AP-08 on September 13, 2022, to allow for the laboratory to conduct a MS/MSD quality control check.
- A field blank was collected in the area of MW-AP-01A on September 8, 2022, using laboratory provided deionized water. The field blank was used to assess for potential contaminants from field conditions during sampling activities.

These QA/QC samples were analyzed for the same constituents as the groundwater samples. Based on review of the laboratory-provided QC data and Environmental Standards recommendations, the data for this sampling event were determined to meet the data quality objectives for the project. A copy of the data validation report is included in **Appendix B**.

Section 6

Statistical Evaluation of Groundwater Data

Statistical evaluation of the semiannual AMP data was performed in accordance with the statistical method certified by a qualified South Carolina-registered professional engineer. The certified statistical method has been posted to the Unit's operating record. Statistical evaluations completed in 2022 are summarized in the following sections.

6.1 Comparison to Groundwater Protection Standards

Consistent with the provisions of 40 CFR §257.95(d)(2), GWPS for the detected Appendix IV constituents listed in 40 CFR §257 were established on October 17, 2018. Assessment monitoring data for the March and September 2022 AMP events were evaluated against established GWPS for the Unit from the downgradient compliance monitoring wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08.

6.1.1 First Semiannual 2022 Data Evaluations

Pursuant to 40 CFR §257.95, TRC evaluated Appendix IV constituent detections against the GWPS that were established for the AMP (**Appendix C**). Based on that evaluation, the following Appendix IV constituents were found to exceed the GWPS for the first semiannual 2022 groundwater monitoring event based on a value-to-standard comparison (**Table 2**):

- Arsenic (MW-AP-02, MW-AP-03, and MW-AP-04)
- Lithium (MW-AP-03)

6.1.2 Second Semiannual 2022 Data Evaluations

Pursuant to 40 CFR §257.95, TRC evaluated Appendix IV constituent detections against the GWPS that were established for the AMP (**Appendix D**). Based on that evaluation, the following Appendix IV constituents were found to exceed the GWPS for the second semiannual 2022 groundwater monitoring event based on a value-to-standard comparison (**Table 3**):

- Arsenic (MW-AP-02, MW-AP-03, and MW-AP-04)
- Lithium (MW-AP-03)

Section 7

Conclusions

7.1 Findings

The first semiannual 2022 AMP compliance sampling event was conducted on March 15-18, 2022, with sample analyses completed on March 31, 2022. The second semiannual 2022 AMP compliance sampling event was conducted on September 6, 8, and 13, 2022, with sample analyses complete on September 27, 2022. These groundwater sampling and analysis activities were performed in general accordance with the requirements of the Unit's GWMP for the CCR Rule network.

Evaluation of the monitoring results from the first and second 2022 semiannual events identified an exceedance above established GWPS for arsenic in MW-AP-02, MW-AP-03, and MW-AP-04, and lithium in MW-AP-03. DESC completed an ACM for the Unit for arsenic and lithium in June 2019.

7.2 Planned Activities

Based on the results from the 2022 monitoring activities, DESC intends to continue with semiannual groundwater monitoring activities in 2023 that are consistent with the provisions in the CCR Rule [Part 257.95]. Also, pending selection of the final remedy and consistent with the provisions of the CCR Rule [parts 257.95(a) and 257.105(h)(12)], Dominion Energy will continue to prepare semiannual progress reports for remedy design and selection.

Section 8

References

- Environmental Protection Agency (EPA). 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81.
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- Nautilus 2016. Groundwater Sampling and Analysis Plan, Wateree Station Ash Pond. Eastover, SC: Nautilus Geologic Consulting, PLLC.
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- Nautilus 2020. 2020 Annual Groundwater Monitoring and Corrective Action Report, Wateree Station Ash Pond. Eastover, SC: January 2021. Nautilus Geologic Consulting, PLLC.
- Nautilus 2021. Analysis of Groundwater Flow Rate and Direction: September 2020 Monitoring Data, Cope Station: Class III Landfill, Wateree Station: Class III Landfill, FGD Pond, Ash Pond, Williams Station: FGD Pond, Highway 52 Class III Landfill: Nautilus Geologic Consulting, PLLC. February 2021.

Section 9 Signature Page

This 2022 CCR Annual Groundwater Monitoring and Corrective Action Report (Report) has been prepared by a qualified groundwater scientist on behalf of Dominion Energy South Carolina (DESC) for the former coal ash storage pond (Ash Pond) at Wateree Generating Station. This Report satisfied the reporting requirements specified in Title 40 CFR §257.90(e) *et seq.* [Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule; Federal Register Vol. 80, No. 74, 21302-21501 on April 17, 2015, as amended)].

Name: Richard A. Mayer Jr., P.G.

Expiration Date: June 30, 2023

Company: TRC Environmental Corporation

Date: January 31, 2023



(SEAL)

Tables

Table 1
Summary of Historical CCR Static Water Level Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Monitoring Well ID	Top of Casing Elevation (ft. AMSL)	Date	Depth to Water (feet)	Static Water Level Elevation (ft. AMSL)
MW-AP-01A	127.97	5/11/2016	12.41	115.56
		7/11/2016	13.91	114.06
		9/19/2016	13.78	114.19
		11/15/2016	14.28	113.69
		1/17/2017	12.60	115.37
		3/20/2017	13.58	114.39
		5/22/2017	13.78	114.19
		7/10/2017	13.91	114.06
		9/26/2017	14.04	113.93
		3/5/2018	14.64	113.33
		6/4/2018	14.76	113.21
		9/10/2018	14.74	113.23
		11/20/2018	13.37	114.60
		12/11/2018	12.72	115.25
		3/6/2019	11.71	116.26
		8/28/2019	15.14	112.83
		3/9/2020	11.00	116.97
		9/14/2020	14.67	113.30
		3/8/2021	11.69	116.28
9/15/2021	14.26	113.71		
3/15/2022	14.10	113.87		
9/6/2022	15.01	112.96		
MW-AP-01	108.21	5/11/2016	18.75	89.46
		7/11/2016	20.53	87.68
		9/19/2016	20.35	87.86
		11/16/2016	20.84	87.37
		1/18/2017	19.56	88.65
		3/21/2017	20.25	87.96
		5/23/2017	18.64	89.57
		7/10/2017	19.60	88.61
		9/26/2017	20.38	87.83
		3/5/2018	18.56	89.65
		6/5/2018	17.02	91.19
		9/10/2018	20.54	87.67
		12/11/2018	16.65	91.56
		3/6/2019	16.86	91.35
		8/27/2019	18.93	89.28
		3/9/2020	15.33	92.88
		9/14/2020	17.18	91.03
		3/8/2021	15.27	92.94
		9/15/2021	18.64	89.57
3/15/2022	15.63	92.58		
9/6/2022	18.97	89.24		

Notes:

1) ft AMSL = feet above mean sea level.

Table 1
Summary of Historical CCR Static Water Level Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Monitoring Well ID	Top of Casing Elevation (ft. AMSL)	Date	Depth to Water (feet)	Static Water Level Elevation (ft. AMSL)
MW-AP-02	111.00	5/11/2016	23.45	87.55
		7/11/2016	25.94	85.06
		9/19/2016	26.38	84.62
		11/15/2016	27.00	84.00
		1/18/2017	25.31	85.69
		3/21/2017	26.10	84.90
		5/23/2017	22.23	88.77
		7/10/2017	24.83	86.17
		9/26/2017	26.08	84.92
		3/5/2018	23.01	87.99
		6/5/2018	20.75	90.25
		9/10/2018	25.91	85.09
		12/11/2018	19.62	91.38
		3/6/2019	19.77	91.23
		8/27/2019	24.18	86.82
		3/9/2020	19.13	91.87
		9/14/2020	21.57	89.43
		3/8/2021	19.35	91.65
9/15/2021	24.48	86.52		
3/15/2022	20.60	90.40		
9/6/2022	25.60	85.40		
MW-AP-03	110.38	5/11/2016	21.60	88.78
		7/11/2016	23.48	86.90
		9/19/2016	23.90	86.48
		11/15/2016	24.80	85.58
		1/18/2017	23.77	86.61
		3/21/2017	24.82	85.56
		5/23/2017	22.18	88.20
		7/10/2017	23.22	87.16
		9/26/2017	23.71	86.67
		3/5/2018	22.30	88.08
		6/5/2018	20.82	89.56
		9/10/2018	24.21	86.17
		12/11/2018	18.85	91.53
		3/7/2019	18.76	91.62
		8/27/2019	22.78	87.60
		3/9/2020	17.34	93.04
		9/14/2020	19.39	90.99
		3/8/2021	17.50	92.88
9/15/2021	21.62	88.76		
3/15/2022	19.59	90.79		
9/6/2022	22.56	87.82		

Notes:

1) ft AMSL = feet above mean sea level.

Table 1
Summary of Historical CCR Static Water Level Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Monitoring Well ID	Top of Casing Elevation (ft. AMSL)	Date	Depth to Water (feet)	Static Water Level Elevation (ft. AMSL)
MW-AP-3D	110.61	12/11/2018	19.85	90.76
		3/7/2019	19.70	90.91
		8/27/2019	26.20	84.41
		3/9/2020	19.50	91.11
		9/14/2020	20.87	89.74
		3/8/2021	17.50	93.11
		9/15/2021	27.06	83.55
		3/15/2022	19.85	90.76
		9/6/2022	29.53	81.08
MW-AP-3D2	110.68	3/29/2019	18.62	92.06
		8/27/2019	22.55	88.13
		3/9/2020	17.10	93.58
		9/14/2020	19.04	91.64
		3/8/2021	19.63	91.05
		9/15/2021	22.32	88.36
		3/15/2022	18.51	92.17
				9/6/2022
MW-AP-04	99.02	5/11/2016	10.37	88.65
		7/11/2016	13.36	85.66
		9/19/2016	12.41	86.61
		11/15/2016	13.80	85.22
		1/18/2017	12.81	86.21
		3/21/2017	13.74	85.28
		5/22/2017	11.66	87.36
		7/10/2017	12.51	86.51
		9/26/2017	12.80	86.22
		3/6/2018	10.89	88.13
		6/5/2018	9.12	89.90
		9/10/2018	12.60	86.42
		12/11/2018	7.92	91.10
		3/11/2019	8.41	90.61
		8/28/2019	11.60	87.42
		3/9/2020	6.85	92.17
		9/14/2020	8.71	90.31
		3/8/2021	6.75	92.27
9/15/2021	10.76	88.26		
3/15/2022	8.33	90.69		
		9/6/2022	11.93	87.09

Notes:

1) ft AMSL = feet above mean sea level.

Table 1
Summary of Historical CCR Static Water Level Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Monitoring Well ID	Top of Casing Elevation (ft. AMSL)	Date	Depth to Water (feet)	Static Water Level Elevation (ft. AMSL)
MW-AP-05	106.04	5/11/2016	21.06	84.98
		7/11/2016	23.62	82.42
		9/19/2016	24.69	81.35
		11/15/2016	25.96	80.08
		1/18/2017	23.75	82.29
		3/21/2017	23.19	82.85
		5/22/2017	19.38	86.66
		7/6/2017	19.11	86.93
		9/26/2017	23.95	82.09
		3/6/2018	19.28	86.76
		6/4/2018	14.94	91.10
		9/10/2018	23.58	82.46
		12/11/2018	14.79	91.25
		3/11/2019	14.85	91.19
		8/28/2019	23.20	82.84
		3/9/2020	14.83	91.21
		9/14/2020	16.15	89.89
		3/8/2021	15.01	91.03
9/15/2021	22.91	83.13		
3/15/2022	14.98	91.06		
9/6/2022	24.66	81.38		
MW-AP-08	109.49	5/11/2016	24.21	85.28
		7/11/2016	26.88	82.61
		9/19/2016	27.85	81.64
		11/15/2016	29.20	80.29
		1/18/2017	26.45	83.04
		3/21/2017	26.48	83.01
		5/22/2017	22.71	86.78
		7/6/2017	22.52	86.97
		9/26/2017	27.23	82.26
		3/6/2018	22.59	86.90
		6/4/2018	18.01	91.48
		9/10/2018	27.32	82.17
		12/11/2018	18.10	91.39
		3/11/2019	18.19	91.30
		8/28/2019	26.51	82.98
		3/9/2020	13.30	96.19
		9/14/2020	14.66	94.83
		3/8/2021	13.02	96.47
9/15/2021	21.31	88.18		
3/15/2022	13.52	95.97		
9/6/2022	23.13	86.36		

Notes:

1) ft AMSL = feet above mean sea level.

Table 1
Summary of Historical CCR Static Water Level Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Monitoring Well ID	Top of Casing Elevation (ft. AMSL)	Date	Depth to Water (feet)	Static Water Level Elevation (ft. AMSL)
MW-AP-09	112.48	12/11/2018	18.12	94.36
		3/8/2019	17.92	94.56
		8/28/2019	21.87	90.61
		3/9/2020	16.06	96.42
		9/14/2020	17.59	94.89
		3/8/2021	15.85	96.63
		9/15/2021	19.37	93.11
		3/15/2022	17.75	94.73
		9/6/2022	20.62	91.86
MW-AP-09D	112.23	12/11/2018	17.72	94.51
		3/8/2019	17.47	94.76
		8/28/2019	21.87	90.36
		3/9/2020	16.51	95.72
		9/14/2020	18.24	93.99
		3/8/2021	16.33	95.90
		9/15/2021	20.36	91.87
		3/15/2022	18.10	94.13
		9/6/2022	21.83	90.40
MW-AP-10	110.80	12/11/2018	19.65	91.15
		3/7/2019	19.63	91.17
		8/27/2019	23.72	87.08
		3/9/2020	18.55	92.25
		9/14/2020	21.04	89.76
		3/8/2021	18.93	91.87
		9/15/2021	23.16	87.64
		3/15/2022	20.76	90.04
		9/6/2022	24.08	86.72
MW-AP-11	102.93	12/11/2018	11.80	91.13
		3/7/2019	11.69	91.24
		8/27/2019	16.40	86.53
		3/9/2020	10.90	92.03
		9/14/2020	12.89	90.04
		3/8/2021	11.05	91.88
		9/15/2021	15.82	87.11
		3/15/2022	13.01	89.92
		9/6/2022	16.79	86.14
MW-AP-11D	102.98	12/12/2018	12.10	90.88
		3/7/2019	12.10	90.88
		8/27/2019	18.93	84.05
		3/9/2020	12.05	90.93
		9/14/2020	13.55	89.43
		3/8/2021	12.25	90.73
		9/15/2021	19.77	83.21
		3/15/2022	12.29	90.69
		9/6/2022	21.58	81.40

Notes:

1) ft AMSL = feet above mean sea level.

Table 1
Summary of Historical CCR Static Water Level Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Monitoring Well ID	Top of Casing Elevation (ft. AMSL)	Date	Depth to Water (feet)	Static Water Level Elevation (ft. AMSL)
MW-AP-11D2	103.90	3/7/2019	10.70	93.20
		8/27/2019	15.40	88.50
		3/9/2020	17.10	86.80
		9/14/2020	12.45	91.45
		3/8/2021	10.50	93.40
		9/15/2021	15.63	88.27
		3/15/2022	11.88	92.02
		9/6/2022	17.21	86.69
MW-AP-12	106.06	12/12/2018	15.19	90.87
		3/11/2019	14.86	91.20
		8/28/2019	19.48	86.58
		3/9/2020	14.04	92.02
		9/14/2020	16.31	89.75
		3/8/2021	14.14	91.92
		9/15/2021	18.38	87.68
		3/15/2022	15.74	90.32
9/6/2022	19.42	86.64		
MW-AP-13	109.91	3/8/2019	15.32	94.59
		8/28/2019	19.36	90.55
		3/9/2020	13.68	96.23
		9/14/2020	15.39	94.52
		3/8/2021	13.60	96.31
		9/15/2021	17.40	92.51
		3/15/2022	15.74	94.17
		9/6/2022	18.13	91.78

Notes:


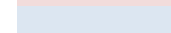
1) ft AMSL = feet above mean sea level.

Table 2
Summary of First Semiannual 2022 Assessment Monitoring Program Sampling Event Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Parameter Name	Units	Background Threshold Values	CCR Groundwater Protection Standard	Background Well				Downgradient Wells															
				MW-AP-01A				MW-AP-01				MW-AP-02				MW-AP-03				MW-AP-04			
				03/16/2022				03/18/2022				03/18/2022				03/17/2022				03/17/2022			
Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL
CCR Appendix III																							
Boron	µg/L	1000	--	10.9	J	4.00	15.0	2250		80.0	300	1130		40.0	150	1620		80.0	300.0	2140		80.0	300
Calcium	µg/L	1910	--	593		30.0	100	73000		150	500	63700		150	500	77100		600	2000	138000		600	2000
Chloride	mg/L	7.67	--	5.91		0.0670	0.200	183		3.35	1.00	89.6		1.34	4.00	153		2.68	8.00	22.2		0.335	1.00
Fluoride	mg/L	0.1	4	0.0330	U	0.0330	0.100	0.333		0.0330	0.100	0.184		0.0330	0.100	0.642		0.0330	0.100	0.522		0.0330	0.100
pH	SU	3.66 - 5.27	--	4.56		0.01	0.01	6.17		0.01	0.01	6.12		0.01	0.01	6.09		0.01	0.01	6.41		0.01	0.01
Sulfate	mg/L	0.83	--	0.205	J	0.133	0.400	14.3		0.133	0.400	34.5		2.66	8.00	73.6		5.32	16.0	15.0		0.133	0.400
Total Dissolved Solids	mg/L	44	--	27.1		3.40	14.3	463		3.40	14.3	360		3.40	14.3	469		3.40	14.3	463		3.40	14.3
CCR Appendix IV																							
Antimony	µg/L	--	6	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00
Arsenic	µg/L	--	10	1.66	U	1.66	5.00	1.66	U	1.66	5.00	103		1.66	5.00	1170		33.2	100	10.3		1.66	5.00
Barium	µg/L	--	2000	59.4		0.500	2.00	240		0.500	2.00	223		0.500	2.00	206		0.500	2.00	148		0.500	2.00
Beryllium	µg/L	--	4	0.245	J	0.200	0.500	0.200	U	0.200	0.500	0.200	U	0.200	0.500	0.200	U	0.200	0.500	0.200	U	0.200	0.500
Cadmium	µg/L	--	5	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.100
Chromium	µg/L	--	100	1.00	U	1.00	3.00	36.5		1.00	3.00	5.51		1.00	3.00	1.00	U	1.00	3.00	1.00	U	1.00	3.00
Cobalt	µg/L	--	6	0.523	J	0.100	1.00	0.397	J	0.100	1.00	0.320	J	0.100	1.00	0.265	J	0.100	1.00	0.100	U	0.100	1.00
Lead	µg/L	--	15	1.13	J	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00
Lithium	µg/L	--	40	2.00	U	2.00	10.0	2.00	U	2.00	10.0	9.94	J	2.00	10.0	67.8		2.00	10.0	2.00	U	2.00	10.0
Mercury	µg/L	--	2	0.0670	U	0.0670	0.200	0.0670	U	0.0670	0.200	0.0670	U	0.0670	0.200	0.0670	UJ	0.0670	0.200	0.0670	UJ	0.0670	0.200
Molybdenum	µg/L	--	100	0.167	U	0.167	0.500	2.96		0.167	0.500	8.69		0.167	0.500	21.0		0.167	0.500	2.12		0.167	0.500
Radium-226/228	pCi/L	--	5	4.47				9.95	J			10.4	J			7.56	J			4.69	J		
Selenium	µg/L	--	50	1.50	U	1.50	5.00	1.50	U	1.50	5.00	1.50	U	1.50	5.00	1.50	U	1.50	5.00	1.50	U	1.50	5.00
Thallium	µg/L	--	2	0.165	J	0.125	0.500	0.125	U	0.125	0.500	0.125	U	0.125	0.500	0.211	J	0.125	0.500	0.125	U	0.125	0.500
Field Parameters																							
Conductivity	µS/cm	--	--	42.50		0.1	0.1	918.32		0.1	0.1	780.71		0.1	0.1	858.07		0.1	0.1	874.91		0.1	0.1
Dissolved Oxygen	mg/L	--	--	2.54		0.01	0.01	1.17		0.01	0.01	0.24		0.01	0.01	0.42		0.01	0.01	0.02		0.01	0.01
Temperature	C	--	--	18.21		0.01	0.01	20.25		0.01	0.01	19.12		0.01	0.01	19.46		0.01	0.01	18.30		0.01	0.01
Turbidity	NTU	--	--	3.22		0.1	0.1	3.32		0.1	0.1	3.41		0.1	0.1	1.14		0.1	0.1	2.32		0.1	0.1
Depth to Water*	ft btoc	--	--	14.10		0.01	0.01	15.63		0.01	0.01	20.60		0.01	0.01	19.59		0.01	0.01	8.33		0.01	0.01
Groundwater Elevation*	ft msl	--	--	113.87		0.01	0.01	92.58		0.01	0.01	90.40		0.01	0.01	90.79		0.01	0.01	90.69		0.01	0.01
Oxidation Reduction Potential	millivolts	--	--	99.8		0.1	0.1	-76.4		0.1	0.1	-57.1		0.1	0.1	-90.9		0.1	0.1	-98.5		0.1	0.1

Notes:
MDL = Method Detection Limit
QL = Quantitation Limit
mg/L = Milligram per liter
pCi/L = Picocuries per liter
µg/L = Microgram per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards

Qualifiers (Qual)
J = Estimated Results
U = Samples reported below their respective MDL
UJ = Sample reporting limit is approximate and may be inaccurate.

 = Concentration greater than Background Threshold Values
 = Concentration greater than GWPS



Bold font = Detected constituent
* - Groundwater Elevation data collected on March 15, 2022

Table 2
Summary of First Semiannual 2022 Assessment Monitoring Program Sampling Event Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Parameter Name	Units	Background Threshold Values	Sample ID: Sample Date:	CCR Groundwater Protection Standard	Downgradient Wells											
					MW-AP-05				MW-AP-08				MW-AP-08 Duplicate			
					03/17/2022				03/16/2022				03/16/2022			
Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL					
CCR Appendix III																
Boron	µg/L	1000	--	431		40.0	150	314		20.0	75.0	350		20.0	75.0	
Calcium	µg/L	1910	--	25300		30.0	100	22500		30.0	100	22800		30.0	100	
Chloride	mg/L	7.67	--	13.6		1.34	4.0	18.6		0.670	0.200	17.8		0.670	0.200	
Fluoride	mg/L	0.1	4	0.0842	J	0.0330	0.100	0.729		0.0330	0.100	0.798		0.0330	0.100	
pH	SU	3.66 - 5.27	--	5.80		0.01	0.01	5.91		0.01	0.01	5.91		0.01	0.01	
Sulfate	mg/L	0.83	--	193		2.66	8.00	90.8		1.33	4.00	108		1.33	4.00	
Total Dissolved Solids	mg/L	44	--	416		3.40	14.3	399		3.40	14.3	390		3.40	14.3	
CCR Appendix IV																
Antimony	µg/L	--	6	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00	
Arsenic	µg/L	--	10	1.66	U	1.66	5.00	2.28	J	1.66	5.00	2.06	J	1.66	5.00	
Barium	µg/L	--	2000	159		0.500	2.00	200		0.500	2.00	197		0.500	2.00	
Beryllium	µg/L	--	4	0.200	U	0.200	0.500	4.31		0.200	0.500	4.74		0.200	0.500	
Cadmium	µg/L	--	5	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.1	0.0300	U	0.0300	0.100	
Chromium	µg/L	--	100	1.00	U	1.00	3.00	1.00	U	1.00	3.00	1.00	U	1.00	3.00	
Cobalt	µg/L	--	6	4.01		0.100	1.00	4.25	J	0.100	1.00	5.28	J	0.100	1.00	
Lead	µg/L	--	15	0.500	U	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00	
Lithium	µg/L	--	40	2.00	U	2.00	10.0	9.69	J	2.00	10.0	10.0		2.00	10.0	
Mercury	µg/L	--	2	0.0670	UJ	0.0670	0.200	0.0670	U	0.0670	0.200	0.0670	U	0.0670	0.200	
Molybdenum	µg/L	--	100	0.167	U	0.167	0.500	0.167	U	0.167	0.500	0.167	U	0.167	0.500	
Radium-226/228	pCi/L	--	5	3.94	J			4.94	J			4.91	J			
Selenium	µg/L	--	50	1.50	U	1.50	5.00	3.79	J	1.50	5.00	3.46	J	1.50	5.00	
Thallium	µg/L	--	2	0.125	U	0.125	0.500	0.125	U	0.125	0.500	0.125	U	0.125	0.500	
Field Parameters																
Conductivity	µS/cm	--	--	592.67		0.1	0.1	583.29		0.1	0.1	583.29		0.1	0.1	
Dissolved Oxygen	mg/L	--	--	0.11		0.01	0.01	0.14		0.01	0.01	0.14		0.01	0.01	
Temperature	C	--	--	19.72		0.01	0.01	18.63		0.01	0.01	18.63		0.01	0.01	
Turbidity	NTU	--	--	1.40		0.1	0.1	3.09		0.1	0.1	3.09		0.1	0.1	
Depth to Water*	ft btoc	--	--	14.98		0.01	0.01	13.52		0.01	0.01	13.52		0.01	0.01	
Groundwater Elevation*	ft msl	--	--	91.06		0.01	0.01	95.97		0.01	0.01	95.97		0.01	0.01	
Oxidation Reduction Potential	millivolts	--	--	-49.7		0.1	0.1	-21.7		0.1	0.1	-21.7		0.1	0.1	

Notes:
MDL = Method Detection Limit
QL = Quantitation Limit
mg/L = Milligram per liter
pCi/L = Picocuries per liter
µg/L = Microgram per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards

Qualifiers (Qual)
J = Estimated Results
U = Samples reported below their respective MDL
UJ = Sample reporting limit is approximate and may be inaccurate.

 = Concentration greater than Background Threshold Values
 = Concentration greater than GWPS

Bold font = Detected constituent
* - Groundwater Elevation data collected on March 15, 2022

Table 3
Summary of Second Semiannual 2022 Assessment Monitoring Program Sampling Event Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

Parameter Name	Units	Background Threshold Values	CCR Groundwater Protection Standard	Background Well				Downgradient Wells															
				MW-AP-01A				MW-AP-01				MW-AP-01 Duplicate				MW-AP-02				MW-AP-03			
				09/08/2022				09/13/2022				09/13/2022				09/13/2022				09/13/2022			
Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL
CCR Appendix III																							
Boron	µg/L	1000	--	16.5		4.00	15.0	2590		80.0	300	2580		80	300	987		40.0	150	1940		40.0	150
Calcium	µg/L	1910	--	489		30.0	100	81200		600	2000	80800		600	2000	65200		300	1000	76700		300	1000
Chloride	mg/L	7.67	--	5.75		0.0670	0.200	202		2.68	8.00	206		2.68	8.00	66.6		0.670	2.00	166		1.68	5.00
Fluoride	mg/L	0.1	4	0.0652	U	0.0652	0.100	0.339		0.0330	0.100	0.278		0.0330	0.100	0.0962	J	0.0330	0.100	0.602		0.0330	0.0330
pH	SU	3.66 - 5.27	--	4.19		0.01	0.01	5.99		0.01	0.01	5.99		0.01	0.01	5.96		0.01	0.01	6.06		0.01	0.01
Sulfate	mg/L	0.83	--	0.307	U	0.307	0.4	26.2		5.32	16.0	26.6		5.32	16.0	21.3		1.33	4.00	87.6		3.33	10.0
Total Dissolved Solids	mg/L	44	--	8.00	J	2.38	10.0	478		2.38	10.0	468	J	2.38	10.0	339		2.38	10.0	550		2.38	10.0
CCR Appendix IV																							
Antimony	µg/L	--	6	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00
Arsenic	µg/L	--	10	1.66	U	1.66	5.00	1.66	U	1.66	5.00	1.66	U	1.66	5.00	69.9		1.66	5.00	1080		8.30	25.0
Barium	µg/L	--	2000	53.7		0.500	2.00	264	J+	0.500	2.00	259	J+	0.500	2.00	220	J+	0.500	2.00	223	J+	0.500	2.00
Beryllium	µg/L	--	4	0.233	J	0.200	0.500	0.200	U	0.200	0.500	0.200	U	0.200	0.500	0.200	U	0.200	0.500	0.200	U	0.200	0.500
Cadmium	µg/L	--	5	0.0300	U	0.0300	0.100	0.3000	U	0.0300	0.100	0.0300	U	0.0300	0.0300	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.100
Chromium	µg/L	--	100	1.00	U	1.00	3.00	1.00	U	1.00	3.00	1.00	U	1.00	3.00	52.8		1.00	3.00	1.00	U	1.00	3.00
Cobalt	µg/L	--	6	0.506	J	0.100	1.00	0.100	U	0.100	1.00	0.100	U	0.100	1.00	0.329	J	0.100	1.00	0.307	J	0.100	1.00
Lead	µg/L	--	15	1.20	J	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00
Lithium	µg/L	--	40	2.00	U	2.00	10.0	2.00	U	2.00	10.0	2.00	U	2.00	10.0	7.11	J	2.00	10.0	69.3		2.00	10.0
Mercury	µg/L	--	2	0.0670	U	0.0670	0.200	0.0670	R	0.0670	0.200	0.0670	R	0.0670	0.200	0.0670	R	0.0670	0.200	0.0670	R	0.0670	0.200
Molybdenum	µg/L	--	100	0.167	U	0.167	1.00	3.99		0.167	0.167	3.79		0.167	1.00	5.60		0.167	1.00	25.1		0.167	1.00
Radium-226/228	pCi/L	--	5	1.50	U			2.10	UJ			4.46	J			2.25	J			3.50	J		
Selenium	µg/L	--	50	1.50	U	1.50	5.00	1.50	U	1.50	5.00	1.50	U	1.50	5.00	1.50	U	1.50	5.00	1.50	U	1.50	5.00
Thallium	µg/L	--	2	0.125	U	0.125	0.500	0.125	U	0.125	0.500	0.125	U	0.125	0.500	0.125	U	0.125	0.500	0.125	U	0.125	0.500
Field Parameters																							
Conductivity	µS/cm	--	--	41.49		0.1	0.1	1016.7		0.1	0.1	1016.7		0.1	0.1	734.62		0.1	0.1	888.25		0.1	0.1
Dissolved Oxygen	mg/L	--	--	2.03		0.01	0.01	0.06		0.01	0.01	0.06		0.01	0.01	0.09		0.01	0.01	0.04		0.01	0.01
Temperature	C	--	--	22.48		0.01	0.01	26.12		0.01	0.01	26.12		0.01	0.01	24.77		0.01	0.01	24.16		0.01	0.01
Turbidity	NTU	--	--	2.84		0.1	0.1	2.22		0.1	0.1	2.22		0.1	0.1	4.39		0.1	0.1	3.81		0.1	0.1
Depth to Water*	ft btoc	--	--	15.01		0.01	0.01	18.97		0.01	0.01	18.97		0.01	0.01	25.60		0.01	0.01	22.56		0.01	0.01
Groundwater Elevation*	ft msl	--	--	112.96		0.01	0.01	89.24		0.01	0.01	89.24		0.01	0.01	85.40		0.01	0.01	87.82		0.01	0.01
Oxidation Reduction Potential	millivolts	--	--	99.6		0.1	0.1	-59.9		0.1	0.1	-59.9		0.1	0.1	-41.5		0.1	0.1	-58.6		0.1	0.1

Notes:
MDL = Method Detection Limit
QL = Quantitation Limit
mg/L = Milligram per liter
pCi/L = Picocuries per liter
µg/L = Microgram per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards

Qualifiers (Qual)
UJ = Analyte was not detected, reporting limit approximate
R = Unreliable result
J = Estimated Results
J+ = Potentially high value
U = Samples reported below their respective MDL
= Concentration greater than Background Threshold Values
= Concentration greater than GWPS
Bold font = Detected constituent
* - Groundwater Elevation data collected on September 6, 2022

Table 3
Summary of Second Semiannual 2022 Assessment Monitoring Program Sampling Event Data
Dominion Energy South Carolina - Wateree Station Ash Pond
Eastover, Richland County, South Carolina

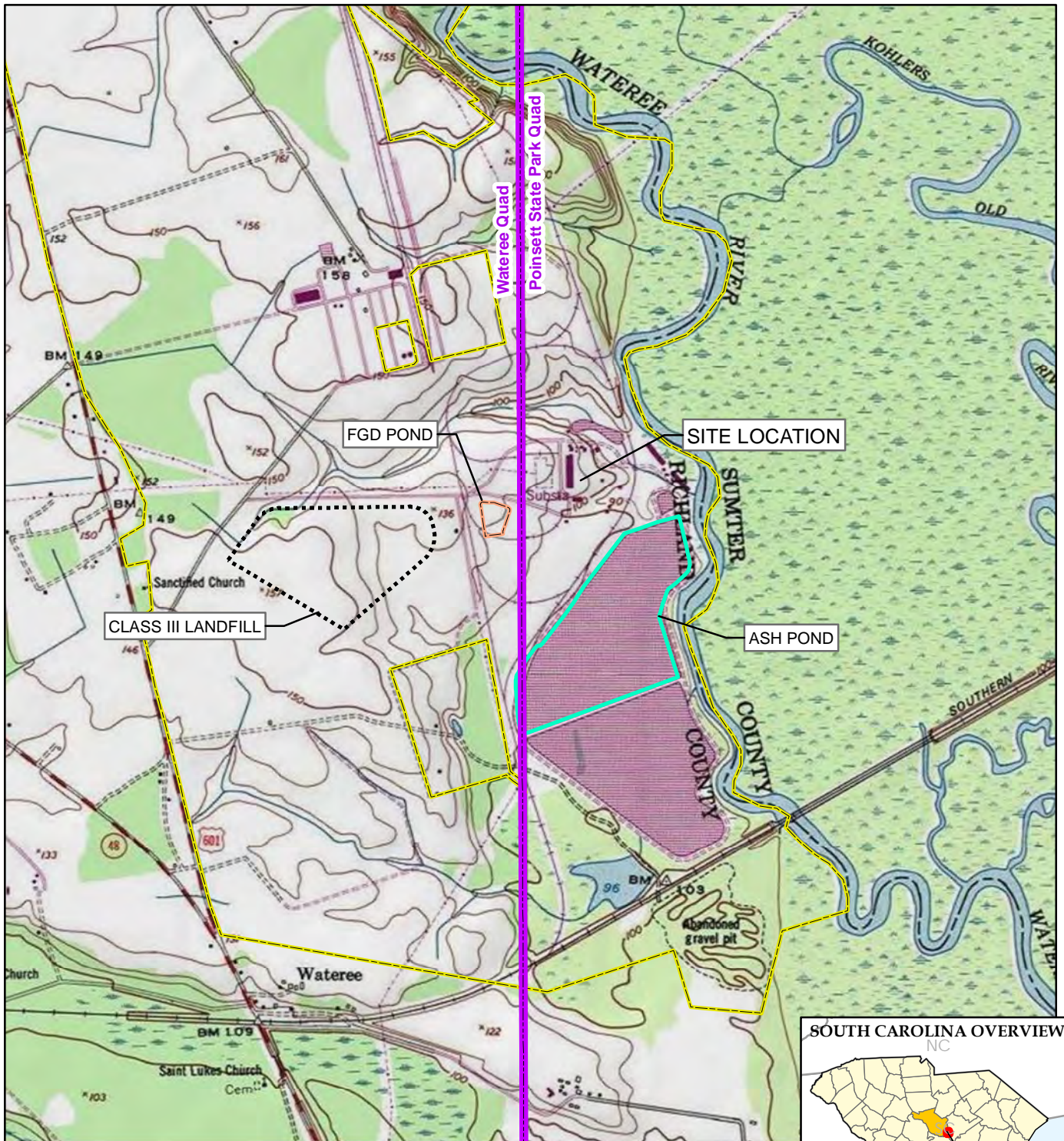
Parameter Name	Units	Background Threshold Values	CCR Groundwater Protection Standard	Downgradient Wells												
				MW-AP-04				MW-AP-05				MW-AP-08				
				Result	Qual	MDL	QL	Result	Qual	MDL	QL	Result	Qual	MDL	QL	
				Sample ID: MW-AP-04 MW-AP-05 MW-AP-08												
				Sample Date: 09/13/2022 09/13/2022 09/13/2022												
CCR Appendix III																
Boron	µg/L	1000	--	2370		80.0	300	471		20.0	75.0	399		20.0	75.0	
Calcium	µg/L	1910	--	145000		600	2000	28500		150	500	27300		150	500	
Chloride	mg/L	7.67	--	21.5		0.335	1.00	13.6		1.34	4.00	17.3		1.34	4.00	
Fluoride	mg/L	0.1	4	0.494		0.0330	0.100	0.0330	U	0.0330	0.100	0.975		0.0330	0.0330	
pH	SU	3.66 - 5.27	--	5.86		0.01	0.01	5.92		0.01	0.01	5.89		0.01	0.01	
Sulfate	mg/L	0.83	--	22.4		0.665	2.00	191		2.66	8.00	145		2.66	8.00	
Total Dissolved Solids	mg/L	44	--	513		2.38	10.0	383		2.38	10.0	358		2.38	10.0	
CCR Appendix IV																
Antimony	µg/L	--	6	0.600	U	0.600	2.00	0.600	U	0.600	2.00	0.600	U	0.600	2.00	
Arsenic	µg/L	--	10	33.5		1.66	5.00	1.66	U	1.66	5.00	10.5		1.66	5.00	
Barium	µg/L	--	2000	205	J+	0.500	2.00	170	J+	0.500	2.00	172	J+	0.500	2.00	
Beryllium	µg/L	--	4	0.200	U	0.200	0.500	0.200	U	0.200	0.500	8.72		0.200	0.500	
Cadmium	µg/L	--	5	0.0300	U	0.0300	0.100	0.0300	U	0.0300	0.100	0.0880	J	0.0300	0.100	
Chromium	µg/L	--	100	3.16		1.00	1.00	1.00	U	1.00	1.00	2.75	J	1.00	1.00	
Cobalt	µg/L	--	6	0.189	J	0.100	1.00	4.86		0.100	1.00	22.1		0.100	1.00	
Lead	µg/L	--	15	0.880	J	0.500	2.00	0.500	U	0.500	2.00	0.500	U	0.500	2.00	
Lithium	µg/L	--	40	2.00	U	2.00	10.0	2.00	U	2.00	10.0	16.8		2.00	10.0	
Mercury	µg/L	--	2	0.0670	R	0.0670	0.200	0.0670	R	0.0670	0.200	0.0670	R	0.0670	0.200	
Molybdenum	µg/L	--	100	4.69		0.167	1.00	0.167	U	0.167	1.00	0.167	U	0.167	1.00	
Radium-226/228	pCi/L	--	5	1.88	U			1.72	J			4.37	J			
Selenium	µg/L	--	50	1.50	U	1.50	5.00	1.50	U	1.50	5.00	24.6		1.50	5.00	
Thallium	µg/L	--	2	0.125	U	0.125	0.500	0.125	U	0.125	0.500	0.125	U	0.125	0.500	
Field Parameters																
Conductivity	µS/cm	--	--	871.05		0.1	0.1	571.41		0.1	0.1	602.11		0.1	0.1	
Dissolved Oxygen	mg/L	--	--	0.14		0.01	0.01	0.12		0.01	0.01	0.18		0.01	0.01	
Temperature	C	--	--	21.90		0.01	0.01	25.11		0.01	0.01	24.78		0.01	0.01	
Turbidity	NTU	--	--	11.7		0.1	0.1	3.49		0.1	0.1	2.73		0.1	0.1	
Depth to Water*	ft btoc	--	--	11.93		0.01	0.01	24.66		0.01	0.01	23.13		0.01	0.01	
Groundwater Elevation*	ft msl	--	--	87.09		0.01	0.01	81.38		0.01	0.01	86.36		0.01	0.01	
Oxidation Reduction Potential	millivolts	--	--	-140.1		0.1	0.1	48.3		0.1	0.1	69.7		0.1	0.1	

Notes:
MDL = Method Detection Limit
QL = Quantitation Limit
mg/L = Milligram per liter
pCi/L = Picocuries per liter
µg/L = Microgram per liter
µS/cm = MicroSiemen per centimeter
SU = Standard Units
C = Degrees Celsius
NTU = Nephelometric Turbidity Unit
ft btoc = feet below top of casing
ft msl = feet above mean sea level
CCR = Coal Combustion Residuals
GWPS = Groundwater Protection Standards





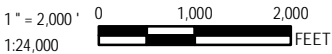


Qualifiers (Qual)
R = Unreliable result
R = Unreliable result
J+ = Potentially high value
U = Samples reported below their respective MDL

 = Concentration greater than Background Threshold Values
 = Concentration greater than GWPS
Bold font = Detected constituent
* - Groundwater Elevation data collected on September 6, 2022

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES (WATEREE & POINSETT STATE PARK).

-  USGS 24k QUAD BOUNDARY
-  SITE LOCATION
-  ASH POND BOUNDARY
-  CLASS III LANDFILL
-  1" = 2,000' / 1:24,000
-  FGD POND
-  PROPERTY BOUNDARY




50 International Drive, Suite 150
Patewood Plaza Three
Greenville, SC 29615
Phone: 864.281.0030

**DOMINION ENERGY SOUTH CAROLINA
WATEREE STATION
142 WATEREE STATION ROAD
EASTOVER, SOUTH CAROLINA 29044**






**FIGURE 1
SITE LOCATION MAP**

DRAWN BY:	J. YONTS
APPROVED BY:	R. MAYER
PROJECT NO:	416559.0007.0000
FILE NO:	Figure1_Waterree_AP_Loc_Map_CCR.mxd
DATE:	JANUARY 2023


Plot Date: 12/30/2022, 11:04:03 AM by JYONTS -- LAYOUT: ANSI B(11"x17")
 Path: S:\1-PROJECTS\Dominion\South Carolina\Water\SCA\Ash_Pond\2022\Figure2_CCR_AP_Well_Network.mxd
 Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
 Map Rotation: 0
 TRC - GIS




LEGEND


-  CCR Background Monitoring Well
-  CCR Downgradient Monitoring Well
-  CCR Corrective Action Monitoring Well
-  Backfilled Clean Closed Ash Pond Area Boundary
-  FGD Pond

NOTE: Aerial Image from ESRI World Imagery dated April 2021.

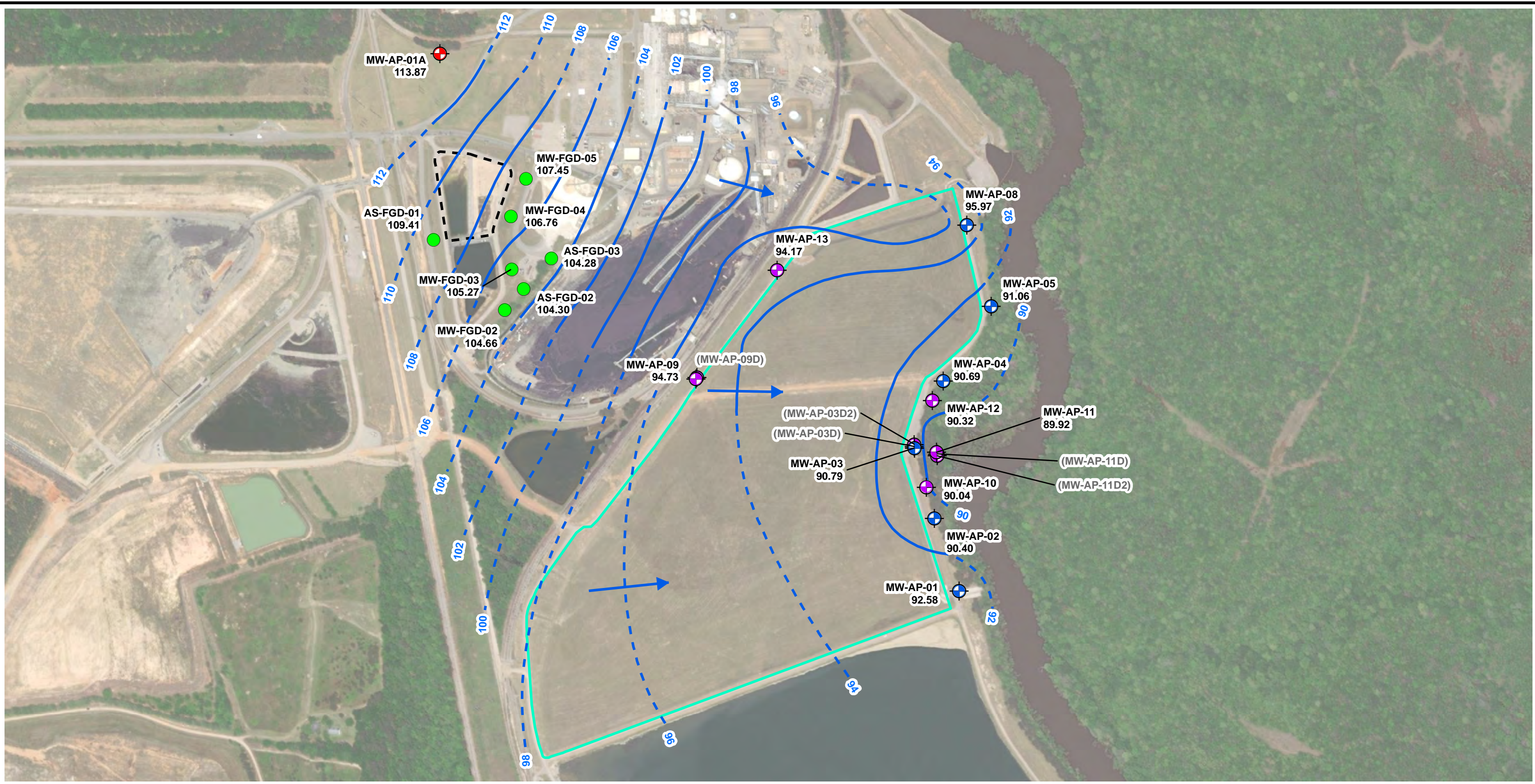












1" = 500'
1:6,000

PROJECT:	
DESC WATER TREATMENT STATION BACKFILLED CLEAN CLOSED ASH POND AREA EASTOVER, SOUTH CAROLINA	
TITLE:	
CCR RULE COMPLIANCE MONITORING WELL NETWORK	
DRAWN BY:	J. YONTS
CHECKED BY:	R. MAYER
APPROVED BY:	R. MAYER
DATE:	DECEMBER 2022
PROJ. NO.:	416559.0005.0000
FIGURE 2	
 50 International Drive, Suite 150 Patwood Plaza Three Greenville, SC 29615 Phone: 864.281.0030 www.TRCCompanies.com	
FILE NO.:	Figure2_CCR_AP_Well_Network.mxd

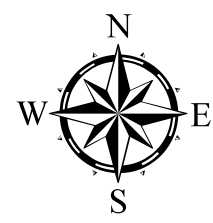
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 Path: S:\1-PROJECTS\DominionSouth_Carolina\5 -Water\3 -CCR_AP_Pond\2022\Figure3_CCR_AP_Waterlevel_202201.mxd
 Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
 Map Rotation: 0
 TRC - GIS




LEGEND

-  CCR Background Monitoring Well
-  CCR Downgradient Monitoring Well
-  CCR Corrective Action Monitoring Well
-  Event Piezometer
-  FGD Pond
-  Backfilled Clean Closed Ash Pond Area Boundary
-  Water Table Elevation in feet above mean sea level (2' Contour Intervals) - Dashed where inferred.
-  Approximate Groundwater Flow Direction
- 94.73** Water Elevation (FT MSL)

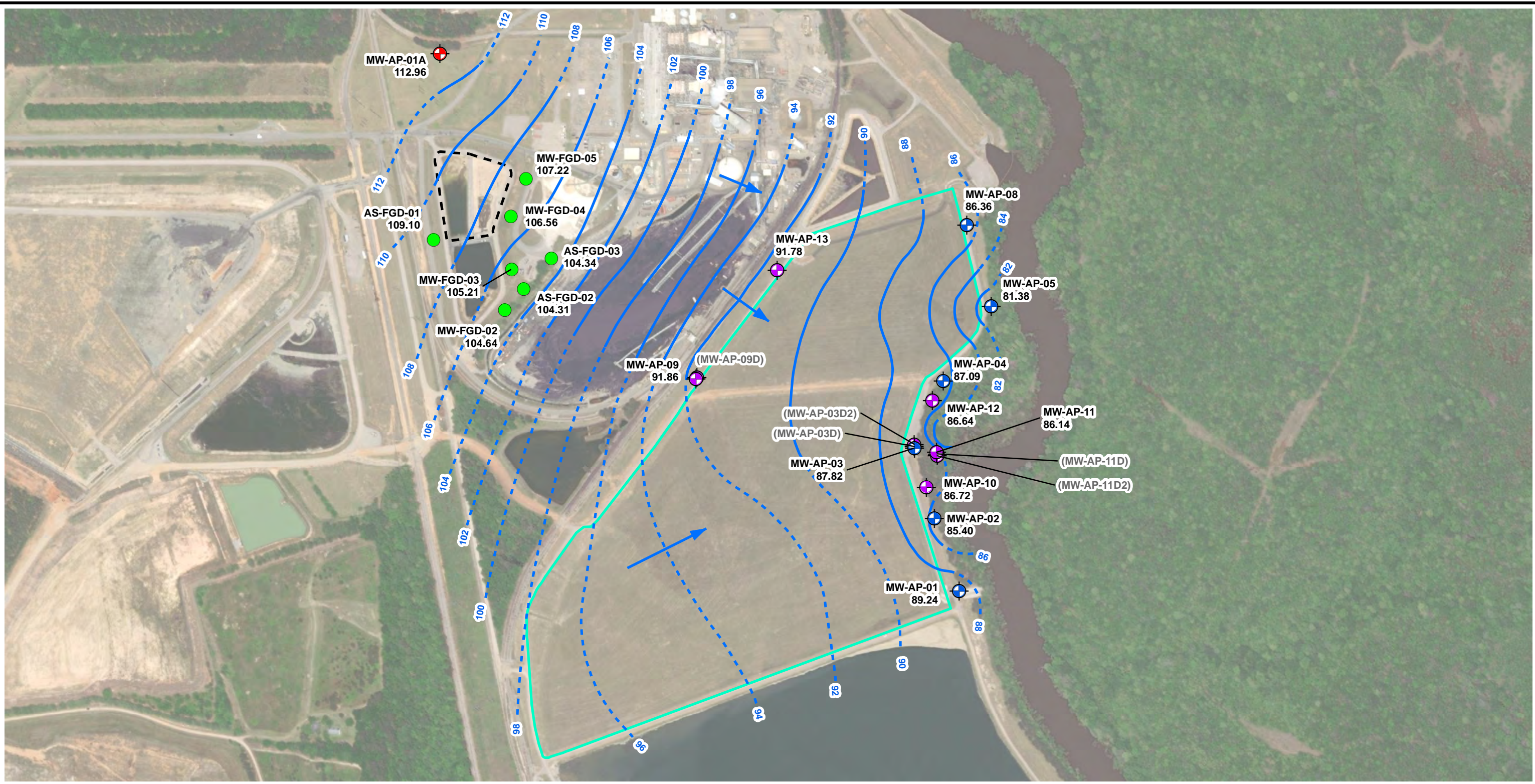
NOTE: Aerial Image from ESRI World Imagery dated April 2021.
 Wells in parentheses not used for contouring












1" = 500'
 1:6,000

PROJECT:		DESC WATER TREATMENT STATION BACKFILLED CLEAN CLOSED ASH POND AREA EASTOVER, SOUTH CAROLINA	
TITLE:		GROUNDWATER POTENTIOMETRIC SURFACE MAP - MARCH 15, 2022	
DRAWN BY:	J. YONTS	PROJ. NO.:	416559.0005.0000
CHECKED BY:	R. MAYER	FIGURE 3	
APPROVED BY:	R. MAYER		
DATE:	DECEMBER 2022		
		<i>50 International Drive, Suite 150 Palmetto Plaza Three Greenville, SC 29615 Phone: 864.281.0030 www.TRCCompanies.com</i>	
FILE NO.:		Figure3_CCR_AP_Waterlevel_202201.mxd	

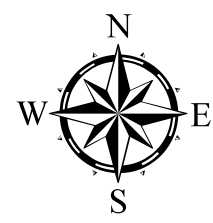
Plot Date: 12/30/2022 13:26:00 PM by JYONTS -- LAYOUT: ANSI_B(11"x17")
 Path: S:\1-PROJECTS\DominionSouth_Carolina\6. Water\6. Waterlevel_202203.mxd
 Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
 Map Rotation: 0
 TRC - GIS




LEGEND

-  CCR Background Monitoring Well
-  CCR Downgradient Monitoring Well
-  CCR Corrective Action Monitoring Well
-  Event Piezometer
-  FGD Pond
-  Backfilled Clean Closed Ash Pond Area Boundary
-  Water Table Elevation in feet above mean sea level (2' Contour Intervals) - Dashed where inferred.
-  Approximate Groundwater Flow Direction
- 91.88**  Water Elevation (FT MSL)

NOTE: Aerial Image from ESRI World Imagery dated April 2021.
 Wells in parentheses not used for contouring



PROJECT:		DESC WATEREE STATION BACKFILLED CLEAN CLOSED ASH POND AREA EASTOVER, SOUTH CAROLINA	
TITLE:		GROUNDWATER POTENTIOMETRIC SURFACE MAP - SEPTEMBER 6, 2022	
DRAWN BY:	J. YONTS	PROJ. NO.:	416559.0005.0000
CHECKED BY:	R. MAYER	FIGURE 4	
APPROVED BY:	R. MAYER		
DATE:	DECEMBER 2022		
		50 International Drive, Suite 150 Palmetto Plaza Three Greenville, SC 29615 Phone: 864.281.0030 www.TRCCompanies.com	
FILE NO.:		Figure4_CCR_AP_Waterlevel_202203.mxd	

Appendix A

First Semiannual Assessment Monitoring Program Event Field Data Sheets, Laboratory Reports, and Data Validation Forms

Wateree Station Ash Pond - CCR Sampling Event

Date(s) Measured: 3-15-2022

Well ID	Well Diameter (inches)	Well Total Depth (ft BTOC)	Well Completion	Screen length (ft)	Depth to Water (ft below TOC)	Pump Type
MW-AP-01A	2	23.78	Stickup	10	14.10	Peristaltic
MW-AP-01	2	23.35	Stickup	15	15.63	Peristaltic
MW-AP-02	2	32.75	Stickup	15	20.60	Peristaltic
MW-AP-03	2	33.53	Stickup	15	19.59	Peristaltic
MW-AP-03D	2	49.26	Stickup	10	19.85	Peristaltic
MW-AP-3D2	2	73.33	Stickup	10	18.51	Peristaltic
MW-AP-04	2	25.65	Stickup	15	8.33	Peristaltic
MW-AP-05	2	39.38	Stickup	15	14.98	Peristaltic
MW-AP-08	2	42.24	Stickup	20	13.52	Peristaltic
MW-AP-09	2	32.40	Stickup	10	17.75	Peristaltic
MW-AP-09D	2	57.30	Stickup	10	18.10	Peristaltic
MW-AP-10	2	32.60	Stickup	10	20.76	Peristaltic
MW-AP-11	2	22.00	Stickup	10	13.01	Peristaltic
MW-AP-11D	2	40.94	Stickup	10	12.29	Peristaltic
MW-AP-11D2	2	62.25	Stickup	10	11.88	Peristaltic
MW-AP-12	2	32.50	Stickup	10	15.74	Peristaltic
MW-AP-13	2	31.20	Stickup	10	15.74	Peristaltic

AS-F60-01

16.88 WL only

AS-F60-02

16.13

AS-F60-03

15.13

MW-F60-02

16.58

MW-F60-03

18.02

MW-F60-04

16.03

MW-F60-05

15.90





WATER SAMPLE LOG

PROJECT NAME: Wateree Station AP-NPDES		PREPARED		CHECKED	
PROJECT NUMBER: 416559.0005.0000.6.2		BY: JMB	DATE: 3/16/2022	BY: LAM	DATE: 3-21-22
SAMPLE ID: MW-1A / MW-01A-AP		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: 1307	DATE: 3/16/2022	SAMPLE	TIME: 1340	DATE: 3/16/2022
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER		PH: 4.56 SU		CONDUCTIVITY: 42.50 umhos/cm	
		ORP: 99.8 mV		DO: 2.54 mg/L	
DEPTH TO WATER: 14.07 T/ PVC		TURBIDITY: 3.22 NTU			
DEPTH TO BOTTOM: 23.82 T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: 1.7 <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS		TEMPERATURE: 18.21 °C		OTHER:	
VOLUME REMOVED: 0.8 <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS		COLOR: clear		ODOR: none	
COLOR: clear		ODOR: none		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR:		FILTRATE ODOR:	
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		QC SAMPLE: <input checked="" type="checkbox"/> MS/MSD CCR <input type="checkbox"/> DUP-			
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1311	140	4.58	43.22	116.6	2.47	4.84	18.00	14.09	INITIAL
1325		4.57	42.67	108.6	2.43	4.88	18.30	14.09	
1330		4.58	42.37	101.9	2.46	4.69	18.26	14.09	
1335		4.58	42.51	100.2	2.51	4.24	18.26	14.09	
1340		4.56	42.50	99.8	2.54	3.22	18.21	14.09	
post 1437		—————				2.16	—————	14.09	0.8

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- D.O.: +/- TURB: +/- 10% or <= 5 TEMP.: +/-

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	AMBER	C	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u>	DATE: <u>3-18-22</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: <u>MW-AP-01</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0950</u>	DATE: <u>3-18-22</u>	SAMPLE	TIME: <u>1130</u>	DATE:
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>6.17</u> SU	CONDUCTIVITY: <u>918.32</u> umhos/cm	ORP: <u>-76.4</u> mV	DO: <u>1.17</u> mg/L	
DEPTH TO WATER: <u>15.29</u> T/ PVC	TURBIDITY: <u>3.32</u> NTU				
DEPTH TO BOTTOM: <u>23.35</u> T/ PVC	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY				
WELL VOLUME: <u>1.3</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>20.25</u> °C	OTHER:			
VOLUME REMOVED: <u>2.9</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>Clear</u>	ODOR: <u>none</u>			
COLOR: <u>Clear w/ fines</u>	ODOR: <u>none</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY			FILTRATE COLOR:		
<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE ODOR:		
DISPOSAL METHOD <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		
COMMENTS: <u>Post turb: 2.64</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
0955	115	5.82	577.43	167.9	1.77	20.7	19.10	1540	INITIAL
1000		5.82	614.67	92.8	1.51	30.8	18.87		
1030		5.93	818.66	-15.3	1.52	15.1	19.84		
1035		5.99	845.92	-35.4	1.40	9.73	19.51		
1040		6.02	832.10	-40.6	1.19	7.36	19.63		
1045		6.07	883.83	-57.5	1.12	7.20	19.85		
1050		6.06	886.05	-57.2	1.32	8.15	19.94		
1115		6.15	874.86	-68.0	1.21	4.67	20.02		
1120		6.16	934.10	-78.9	1.22	3.94	20.08		
1125		6.19	914.26	-80.6	1.08	3.81	20.10		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>AGM</u>	DATE: <u>3-16-22</u>
	BY: <u>LAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: <u>MW-AP-02</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0953</u>	DATE: <u>3-18-22</u>	SAMPLE	TIME: <u>1040</u>	DATE: <u>3-18-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: <u>6.12</u> SU	CONDUCTIVITY: <u>780.71</u> umhos/cm	
			ORP: <u>-57.1</u> mV	DO: <u>0.24</u> mg/L	
DEPTH TO WATER: <u>20.08</u> T/ PVC			TURBIDITY: <u>3.41</u> NTU		
DEPTH TO BOTTOM <u>32.75</u> T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>2.2</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>19.22</u> °C OTHER: _____		
VOLUME REMOVED <u>0.5</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			COLOR: <u>clear</u> ODOR: <u>none</u>		
COLOR: <u>clear</u> ODOR: <u>none</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: _____ FILTRATE ODOR: _____		
DISPOSAL METHOD <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			COMMENTS: <u>Post turb: 3.02</u>		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1000	50	5.72	838.20	77.2	0.88	12.25	16.02	20.20	INITIAL
1005	}	5.95	784.76	30.0	0.18	5.63	17.36	20.22	}
1010		6.00	775.85	-1.3	0.19	4.68	17.67		
1015		6.02	781.49	-16.4	0.19	2.83	17.73		
1020		6.05	780.16	-33.9	0.19	2.44	17.94		
1025		6.06	778.15	-42.1	0.19	2.78	18.16		
1030		6.09	785.26	-50.0	0.19	1.97	18.53		
1035		6.11	780.47	-55.6	0.19	3.93	18.80		
1040		6.12	780.71	-57.1	<u>0.24</u>	3.41	19.12	.5	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u>	DATE: <u>3.17.22</u>
	BY: <u>RAM</u>	DATE: <u>3.21.22</u>

SAMPLE ID: MW-AP-03	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0900</u>	DATE: <u>3.17.22</u>	SAMPLE	TIME: <u>0955</u>	DATE: <u>3.17.22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: <u>6.09</u> SU	CONDUCTIVITY: _____ umhos/cm	
			ORP: <u>-90.9</u> mV	DO: <u>0.42</u> mg/L	
DEPTH TO WATER: <u>19.13</u> T/ PVC			TURBIDITY: <u>1.14</u> NTU		
DEPTH TO BOTTOM <u>33.53</u> T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>2.3</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>19.46</u> °C OTHER: _____		
VOLUME REMOVED <u>1.5</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			COLOR: <u>Clear</u> ODOR: <u>none</u>		
COLOR: <u>clear</u> ODOR: <u>none</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: _____ FILTRATE ODOR: _____		
DISPOSAL METHOD <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			COMMENTS: <u>Post turb: 1.01</u>		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)	
0905	115	5.95	883.38	-78.4	0.70	9.17	16.59	19.13	INITIAL	
0910	}	5.99	873.83	-79.9	0.51	5.11	17.99	}	}	
0915		6.01	867.16	-84.3	0.48	3.33	18.73			
0920		6.01	863.17	-88.6	0.42	2.60	18.75			
0925		6.02	860.21	-89.1	0.49	1.73	18.88			
0930		6.06	897.55	-91.1	0.41	1.31	19.24			
0935		6.07	828.33	-91.2	0.35	1.14	19.25			
0945		6.08	860.85	-91.2	0.37	1.19	19.22			
0950		6.09	857.86	-91.1	0.34	1.21	19.37			
0955		6.09	858.07	-90.9	0.42	1.14	19.46			1.5

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u> DATE: <u>3.17.22</u>	BY: <u>RAM</u> DATE: <u>3.21.22</u>

SAMPLE ID: MW-AP-03D	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1035</u>	DATE: <u>3.17.22</u>	SAMPLE	TIME: <u>1115</u>	DATE: <u>3.17.22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>5.98</u> SU	CONDUCTIVITY: <u>582.94</u> umhos/cm	ORP: <u>-14.4</u> mV	DO: <u>0.34</u> mg/L	
DEPTH TO WATER: <u>19.71</u> T/ PVC	TURBIDITY: <u>2.35</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
DEPTH TO BOTTOM: <u>49.26</u> T/ PVC	WELL VOLUME: <u>4.7</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>19.28</u> °C	OTHER: _____		
VOLUME REMOVED: <u>0.8</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>Clear</u>	ODOR: <u>none</u>	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
COLOR: <u>Cloudy</u> ODOR: <u>none</u>	TURBIDITY		FILTRATE COLOR: _____ FILTRATE ODOR: _____		
<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY	DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		
COMMENTS: <u>Post turb: 0.89</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
<u>1040</u>	<u>95</u>	<u>5.96</u>	<u>575.98</u>	<u>-10.3</u>	<u>1.37</u>	<u>601</u>	<u>18.44</u>	<u>19.90</u>	INITIAL
<u>1050</u>		<u>5.97</u>	<u>543.44</u>	<u>-13.3</u>	<u>0.79</u>	<u>13.8</u>	<u>18.62</u>		
<u>1055</u>		<u>5.97</u>	<u>583.22</u>	<u>-13.9</u>	<u>0.86</u>	<u>3.76</u>	<u>18.75</u>		
<u>1100</u>		<u>5.97</u>	<u>582.61</u>	<u>-13.4</u>	<u>0.49</u>	<u>3.31</u>	<u>18.81</u>		
<u>1105</u>		<u>5.98</u>	<u>582.99</u>	<u>-13.5</u>	<u>0.44</u>	<u>3.01</u>	<u>18.88</u>		
<u>1110</u>		<u>5.98</u>	<u>582.96</u>	<u>-13.9</u>	<u>0.39</u>	<u>2.77</u>	<u>19.02</u>		
<u>1115</u>		<u>5.98</u>	<u>582.94</u>	<u>-14.4</u>	<u>0.34</u>	<u>2.35</u>	<u>19.28</u>		<u>0.8</u>
<u>1</u>									

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
<u>1</u>	<u>250 mL</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	<u>250 mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	<u>125 mL</u>	<u>PLASTIC</u>	<u>A</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
<u>1</u>	<u>2 L</u>	<u>PLASTIC</u>	<u>B</u>	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u>	DATE: <u>3-17-22</u>
	BY: <u>LAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-03D2	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1210</u>	DATE: <u>3-17-22</u>	SAMPLE	TIME: <u>1245</u>	DATE: <u>3-17-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: <u>4.06</u> SU	CONDUCTIVITY: <u>283.16</u> umhos/cm	
			ORP: <u>259.7</u> mV	DO: <u>0.56</u> mg/L	
DEPTH TO WATER: <u>18.05</u> T/ PVC			TURBIDITY: <u>2.08</u> NTU		
DEPTH TO BOTTOM: 73.33 T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>8.8</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>19.72</u> °C OTHER: _____		
VOLUME REMOVED: <u>1</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			COLOR: <u>Clear</u> ODOR: <u>none</u>		
COLOR: <u>Clear</u> ODOR: <u>none</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: _____ FILTRATE ODOR: _____		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		
COMMENTS: <u>Post turb: 1.78</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1215	120	4.57	267.00	210.1	3.19	7.30	20.49	18.10	INITIAL
1220		4.09	287.84	258.9	0.75	4.58	19.55		
1225		4.09	284.31	261.2	0.70	1.89	19.51		
1230		4.08	284.21	260.0	0.61	1.92	19.52		
1235		4.07	283.91	259.7	0.55	1.87	19.54		
1240		4.07	283.39	259.8	0.49	1.91	19.53		
1245		4.06	283.16	259.7	0.56	2.08	19.72		1.0

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

PH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: JMB	DATE: 3/17/2022
	BY: RAM	DATE: 3-22

SAMPLE ID: MW-AP-04	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1404	DATE: 3/17/2022	SAMPLE	TIME: 1440	DATE: 3/17/2022
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: 6.41 SU CONDUCTIVITY: 874.91 umhos/cm		
DEPTH TO WATER: 7.90 T/ PVC			ORP: -98.5 mV DO: 0.02 mg/L		
DEPTH TO BOTTOM 25.65 T/ PVC			TURBIDITY: 2.32 NTU		
WELL VOLUME: 3.0 <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
VOLUME REMOVED 2.1 <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: 18.30°C OTHER:		
COLOR: clear ODOR: none			FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: FILTRATE ODOR:		
DISPOSAL METHOD <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		
COMMENTS:					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1407	250	6.38	861.25	-56.6	0.20	2.33	18.92	8.59	INITIAL
1425		6.40	873.14	-89.5	0.02	2.03	18.26	9.06	
1430	200	6.40	872.38	-92.3	0.02	2.18	18.33	9.11	
1435		6.41	874.87	-95.2	0.02	2.09	18.26	9.06	
1440		6.41	874.91	-98.5	0.02	2.32	18.30	9.06	
post 1501						2.18		9.06	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD:	DATE SHIPPED:	AIRBILL NUMBER:
COC NUMBER:	SIGNATURE:	DATE SIGNED:



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>JMB</u>	DATE: <u>3/17/2022</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: <u>MW-AP-05</u>	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1251</u>	DATE: <u>3/17/2022</u>	SAMPLE	TIME: <u>1325</u>	DATE: <u>3/17/2022</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: <u>5.80</u> SU	CONDUCTIVITY: <u>592.67</u> umhos/cm	
DEPTH TO WATER: <u>14.89</u> T/ PVC			ORP: <u>-49.7</u> mV	DO: <u>0.11</u> mg/L	
DEPTH TO BOTTOM: <u>39.38</u> T/ PVC			TURBIDITY: <u>1.40</u> NTU		
WELL VOLUME: <u>4.2</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
VOLUME REMOVED: <u>1.3</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>19.72</u> °C	OTHER: _____	
COLOR: <u>clear</u> ODOR: <u>none</u>			COLOR: <u>clear</u>	ODOR: <u>none</u>	
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO	FILTRATE COLOR: _____	
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			FILTRATE ODOR: _____		
			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		
			COMMENTS: _____		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1252	180	5.79	515.73	-22.4	0.41	2.59	19.89	14.91	INITIAL
1310		5.81	597.25	-48.2	0.09	2.80	19.77	14.91	
1315		5.80	604.49	-48.6	0.10	1.33	19.81	14.91	
1320		5.81	601.17	-49.3	0.10	1.20	19.90	14.91	
1325		5.80	592.67	-49.7	0.11	1.40	19.72	14.91	
post 1346		_____	_____	_____	_____	1.22	_____	14.91	1.3

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____												
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			
1	250 mL	PLASTIC	B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
1	250 mL	PLASTIC	A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
1	125 mL	PLASTIC	A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
1	2 L	PLASTIC	B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N
				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N				<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station AP-NPDES	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.6.2	BY: AGM	DATE: 3-16-22
	BY: PLAM	DATE: 3-21-22

SAMPLE ID: MW-8 MW-AP-08	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1033	DATE: 3-16-22	SAMPLE	TIME: 1120	DATE: 3-16-22
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: 5.91 SU	CONDUCTIVITY: 583.29 umhos/cm	
			ORP: -21.7 mV	DO: 0.14 mg/L	
DEPTH TO WATER: 13.55 T/ PVC			TURBIDITY: 3.09 NTU		
DEPTH TO BOTTOM: 42.30 T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: 4.9 LITERS <input type="checkbox"/> GALLONS <input checked="" type="checkbox"/>			TEMPERATURE: 18.63 °C OTHER:		
VOLUME REMOVED: 1.3 LITERS <input type="checkbox"/> GALLONS <input checked="" type="checkbox"/>			COLOR: clear ODOR: none		
COLOR: black particles/clear ODOR: none			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: — FILTRATE ODOR: —		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			QC SAMPLE: <input type="checkbox"/> MS/MSD <input checked="" type="checkbox"/> DUP-, 22103		
			COMMENTS: Post turb: 2.98		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1040	125	5.72	659.22	50.5	1.60	16.1	18.28	13.59	INITIAL
1045	}	5.31	676.32	49.0	0.24	3.53	18.42	}	}
1050		5.32	673.91	46.1	0.20	2.62	18.39		
1055		5.35	677.44	41.7	0.16	2.34	18.36		
1100		5.38	678.56	34.9	0.16	2.58	18.50		
1105		5.41	671.98	30.4	0.15	2.19	18.57		
1110		5.83	591.52	2.5	0.15	3.64	18.74		
1115		5.88	583.77	-5.2	0.14	3.22	18.79		
1120		5.91	583.29	-21.7	0.14	3.09	18.63		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- D.O.: +/- TURB: +/- 10% or <= 5 TEMP.: +/-

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	AMBER	C	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>JMB</u>	DATE: <u>3/17/2022</u>
	BY: <u>LAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-09	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0956</u>	DATE: <u>3/17/2022</u>	SAMPLE	TIME: <u>1050</u>	DATE: <u>3/17/2022</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>6.12</u> SU	CONDUCTIVITY: <u>459.75</u> umhos/cm	ORP: <u>-63.3</u> mV	DO: <u>0.04</u> mg/L	
DEPTH TO WATER: <u>17.22</u> T/ PVC	TURBIDITY: <u>4.55</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
DEPTH TO BOTTOM: 32.40 T/ PVC	WELL VOLUME: <u>2.6</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>19.75</u> °C	OTHER:		
VOLUME REMOVED: <u>3.1</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>none</u>	FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
COLOR: <u>clear</u> ^{sl iron oxides} ODOR: <u>none</u>	FILTRATE COLOR:	FILTRATE ODOR:	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		COMMENTS:			
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1000	215	5.98	289.19	22.8	0.24	14.85	19.15	17.22	INITIAL
1015		6.08	392.21	-18.0	0.07	12.42	20.05	17.22	
1020		6.09	417.58	-37.6	0.06	11.02	20.38	17.22	
1025		6.10	427.10	-46.4	0.05	9.90	20.40	17.22	
1030		6.11	438.69	-53.0	0.05	7.87 7.29	20.13	17.22	
1035		6.09	432.89	-49.7	0.05	5.09	19.95	17.22	
1040		6.12	448.56	-59.2	0.05	4.93	19.91	17.22	
1045		6.12	452.64	-61.2	0.05	4.65	19.81	17.22	
1050		6.12	459.75	-63.3	0.04	4.55	19.75	17.22	3.1
post 1111						4.48		17.22	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -								
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y <input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>JMB</u>	DATE: <u>3/17/2022</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-09D	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0858</u>	DATE: <u>3/17/2022</u>	SAMPLE	TIME: <u>0930</u>	DATE: <u>3/17/2022</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: <u>5.36</u> SU	CONDUCTIVITY: <u>737.28</u> umhos/cm	
DEPTH TO WATER: <u>17.54</u> T/ PVC			ORP: <u>83.7</u> mV	DO: <u>0.08</u> mg/L	
DEPTH TO BOTTOM: 57.30 T/ PVC			TURBIDITY: <u>3.92</u> NTU		
WELL VOLUME: <u>6.8</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>19.50</u> °C OTHER: _____		
VOLUME REMOVED: <u>1.7</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			COLOR: <u>clear</u> ODOR: <u>none</u>		
COLOR: <u>clear</u> ODOR: <u>none</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: _____ FILTRATE ODOR: _____		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		
COMMENTS: <u>FBLK-WAT-CCR-AP-22105 collected at 0944</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
0903	190	4.84	394.20	94.4	0.27	7.52	18.41	17.61	INITIAL
0915		4.95	477.86	92.8	0.10	6.21	19.88	17.61	
0920		5.34	708.90	88.5	0.09	3.98	19.59	17.61	
0925		5.36	725.62	86.9	0.08	3.66	19.51	17.61	
0930		5.36	737.28	83.7	0.08	3.92	19.50	17.61	
post 0951		—————				3.24	—————	17.61	1.7

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____											
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
				<input type="checkbox"/> Y	<input type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>AGM</u>	DATE: <u>3-18-22</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-10	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1145</u>	DATE: <u>3-18-22</u>	SAMPLE	TIME: <u>1220</u>	DATE: <u>3-18-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>6.18</u> SU		CONDUCTIVITY: <u>670.73</u> umhos/cm		
DEPTH TO WATER: <u>20.2</u> T/ PVC	ORP: <u>-77.0</u> mV		DO: <u>0.22</u> mg/L		
DEPTH TO BOTTOM: 32.60 T/ PVC	TURBIDITY: <u>1.98</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>2.1</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>21.42</u> °C		OTHER: _____		
VOLUME REMOVED: <u>0.8</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>		ODOR: <u>none</u>		
COLOR: <u>clear</u>	ODOR: <u>none</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: _____		FILTRATE ODOR: _____	
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		COMMENTS: <u>Post turb: 1.73</u>	

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1150	100	6.07	659.58	-43.3	1.60	12.85	22.62	20.14	INITIAL
1155	}	6.12	674.71	-59.4	0.46	2.62	21.56	}	
1200		6.15	679.54	-68.2	0.32	1.89	21.28		
1205		6.17	677.64	-73.2	0.24	1.82	21.28		
1210		6.18	675.36	-74.4	0.24	2.13	21.32		
1215		6.18	674.86	-75.8	0.25	1.70	21.72		
1220		6.18	670.73	-77.0	0.22	1.98	21.42		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station AP-NPDES	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.6.2	BY: <u>AGM</u>	DATE: <u>3-16-22</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-11 MW-AP-11	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1335</u>	DATE: <u>3-16-22</u>	SAMPLE	TIME: <u>1630</u>	DATE: <u>3-16-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>6.11</u> SU	CONDUCTIVITY: <u>753.82</u> umhos/cm	ORP: <u>-9.4</u> mV	DO: <u>0.25</u> mg/L	
DEPTH TO WATER: <u>12.78</u> T/ PVC	TURBIDITY: <u>16.3</u> NTU	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
DEPTH TO BOTTOM: 22.00 T/ PVC	TEMPERATURE: <u>17.18</u> °C	OTHER: _____			
WELL VOLUME: <u>1.6</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>none</u>			
VOLUME REMOVED: <u>2.9</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FILTRATE COLOR: _____ FILTRATE ODOR: _____			
COLOR: <u>hazy/cloudy</u> ODOR: <u>none</u>	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____				
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			COMMENTS: <u>Post turb: 22.9</u>		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1340	65	6.13	785.73	19.4	0.96	overrange	17.18	12.91	INITIAL
1345	}	6.17	781.74	-6.7	0.32	13.3	17.36	13.02	}
1350		6.18	781.52	-12.1	0.31	87.1	17.30	13.11	
1450		6.08	754.86	-3.5	0.43	26.6	17.23	13.82	
1540		6.12	761.18	-3.7	0.48	19.0	16.75	13.84	
1620		6.12	761.06	-9.8	0.26	17.9	17.09		
1625		6.12	756.66	-10.0	0.25	17.0	17.16		
1630		6.11	753.82	-9.4	0.25	16.3	17.16	2.9	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- D.O.: +/- TURB: +/- 10% or <= 5 TEMP.: +/-

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	AMBER	C	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>AGM</u>	DATE: <u>3-17-22</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-11D	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>11:27</u>	DATE: <u>3-17-22</u>	SAMPLE	TIME: <u>1315</u>	DATE: <u>3-17-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: <u>5.76</u> SU	CONDUCTIVITY: <u>395.20</u> umhos/cm	
			ORP: <u>74.3</u> mV	DO: <u>0.09</u> mg/L	
DEPTH TO WATER: <u>11.44</u> T/ PVC <u>12.22</u>			TURBIDITY: <u>4.62</u> NTU		
DEPTH TO BOTTOM: 40.94 T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>4.9</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>19.21</u> °C OTHER: _____		
VOLUME REMOVED: <u>4.6</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS			COLOR: <u>clear</u> ODOR: <u>none</u>		
COLOR: <u>clear cloudy</u> ODOR: <u>none</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: _____ FILTRATE ODOR: _____		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____		
COMMENTS: <u>post turb!</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1130	165	5.58	358.19	97.3	5.03	32.0	17.89	12.23	INITIAL
1135	}	5.58	356.46	93.3	0.39	54.5	18.06	12.23	}
1300		5.76	397.46	76.4	0.09	9.09	19.28		
1305		5.76	396.63	75.1	0.01	4.32	19.23		
1310		5.76	396.11	74.4	0.09	4.27	19.32		
1315		5.76	395.60	74.3	0.09	4.62	19.21	4.6	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____											
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
				<input type="checkbox"/> Y	<input type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>AGM</u>	DATE: <u>3-17-22</u>
	BY: <u>RAM</u>	DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-11D2	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0905</u>	DATE: <u>3-17-22</u>	SAMPLE	TIME: <u>1045</u>	DATE: <u>3-17-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>4.08</u> SU	CONDUCTIVITY: <u>164.27</u> umhos/cm	ORP: <u>94.8</u> mV	DO: <u>0.15</u> mg/L	
DEPTH TO WATER: <u>11.44</u> T/ PVC	TURBIDITY: <u>7.90</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
DEPTH TO BOTTOM: 62.25 T/ PVC	WELL VOLUME: <u>8.6</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>18.02</u> °C	OTHER: _____		
VOLUME REMOVED: <u>3.3</u> LITERS <input type="checkbox"/> <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>none</u>	FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
COLOR: <u>hazy/cloudy</u> ODOR: <u>none</u>	TURBIDITY		FILTRATE COLOR: _____	FILTRATE ODOR: _____	
<input type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input checked="" type="checkbox"/> MODERATE <input type="checkbox"/> VERY	DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____	COMMENTS: <u>Post turb: 6.76</u>	

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
0910	130	3.31	327.59	120.3	6.81	14.1	16.77	11.51	INITIAL
0915	}	4.02	163.49	98.8	0.61	62.6	17.61	}	
1030		4.08	161.28	94.4	0.15	9.97	18.47		
1035		4.08	162.85	94.5	0.15	8.57	18.21		
1040		4.08	163.87	94.6	0.15	8.12	18.12		
1045		4.08	164.27	94.8	0.15	7.90	18.02		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____											
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
				<input type="checkbox"/> Y	<input type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: JMB	DATE: 3/17/2022
	BY: LAM	DATE: 3-21-22

SAMPLE ID: MW-AP-12	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1515	DATE: 3/17/2022	SAMPLE	TIME: 1630	DATE: 3/17/2022
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER			PH: 6.24 SU	CONDUCTIVITY: 1,031.0 umhos/cm	
			ORP: -100.4 mV	DO: 0.03 mg/L	
DEPTH TO WATER: 15.22 T/ PVC			TURBIDITY: 4.82 NTU		
DEPTH TO BOTTOM 32.50 T/ PVC			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: 2.9 LITERS <input type="checkbox"/> GALLONS <input checked="" type="checkbox"/>			TEMPERATURE: 19.61 °C OTHER:		
VOLUME REMOVED 4.1 LITERS <input type="checkbox"/> GALLONS <input checked="" type="checkbox"/>			COLOR: <u>slightly cloudy</u> ODOR: <u>none</u>		
COLOR: <u>cloudy</u> ODOR: <u>none</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input type="checkbox"/> NO		
TURBIDITY: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: FILTRATE ODOR:		
DISPOSAL METHOD <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			COMMENTS:		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1517	190	6.22	1,034.5	-96.4	0.21	29.3	19.92	15.22	INITIAL
1530		6.24	1,040.7	-100.3	0.07	19.6	19.95	15.22	}
1535		6.23	1,039.9	-99.8	0.06	9.75	19.48	15.22	
1540		6.24	1,044.3	-100.2	0.05	10.79	19.55	15.22	
1545		6.25	1,038.4	-101.3	0.05	8.46	19.77	15.22	
1550		6.25	1,033.3	-101.8	0.05	7.11	19.68	15.22	
1555		6.25	1,035.6	-101.6	0.04	6.65	19.62	15.22	
1600		6.25	1,030.5	-102.0	0.04	5.37	19.46	15.22	
1605		6.25	1,030.3	-102.1	0.04	5.42	19.62	15.22	
1610		6.25	1,036.0	-102.0	0.04	5.23	19.69	15.22	

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD:	DATE SHIPPED:	AIRBILL NUMBER:
COC NUMBER:	SIGNATURE:	DATE SIGNED:



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>JMB</u>	DATE: <u>3/17/2022</u> BY: <u>RAM</u> DATE: <u>3-21-22</u>

SAMPLE ID: MW-AP-13	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1122</u>	DATE: <u>3/17/2022</u>	SAMPLE	TIME: <u>1205</u>	DATE: <u>3/17/2022</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>5.66</u> SU		CONDUCTIVITY: <u>704.77</u> umhos/cm		
DEPTH TO WATER: <u>15.22</u> T/ PVC	ORP: <u>-56.5</u> mV		DO: <u>0.05</u> mg/L		
DEPTH TO BOTTOM: <u>31.20</u> T/ PVC	TURBIDITY: <u>1.49</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>2.7</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>19.76</u> °C		OTHER: _____		
VOLUME REMOVED: <u>3.2</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>		ODOR: <u>slt sulfur</u>		
COLOR: <u>clear</u>	ODOR: <u>sulfur</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: <u>.</u>		FILTRATE ODOR: <u>slt sulfur</u> ^{NB}	
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		COMMENTS: _____			

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1124	250	5.38	317.40	16.3	0.34	2.43	18.97	15.23	INITIAL
1140		5.51	443.22	-13.4	0.11	1.69	19.37	15.23	
1145		5.61	526.29	-32.8	0.10	1.81	19.64	15.23	
1150		5.65	634.33	-45.6	0.07	1.59	19.84	15.23	
1155		5.66	675.75	-50.8	0.06	1.36	19.83	15.23	
1200		5.65	671.06	-53.2	0.06	1.65	19.73	15.23	
1205		5.66	704.77	-56.5	0.05	1.49	19.76	15.23	
post 1221		_____				1.36	_____	15.23	3.2

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: Aquatrol	SAMPLER: JB / BM / <u>(AM)</u>
PROJECT NO.: 416559.0005.0000	SERIAL #: 851425	DATE: 3-16-22

PH CALIBRATION CHECK

pH 7 (LOT #): 21010066 (EXP. DATE): 08/22	pH 4 / 10 (LOT #): 21080189 (EXP. DATE): 06/2022	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
7.06 / 7.00	4.14 / 4.00	<input type="checkbox"/> WITHIN RANGE	853
7.00 / 7.00	3.99 / 4.00	<input type="checkbox"/> WITHIN RANGE	856
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

Post

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): 21470032 (EXP. DATE): 09/2022	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
4.58 / 4.49	18.13	<input type="checkbox"/> WITHIN RANGE	0858
4.49 / 4.49	18.25	<input type="checkbox"/> WITHIN RANGE	0900
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

Post

ORP CALIBRATION CHECK

CAL. READING (LOT #): 21140143 (EXP. DATE): 04/23	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
233 / 228	17.96	<input type="checkbox"/> WITHIN RANGE	0904
228 / 228	18.01	<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

Post

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
Temp: 18°C Baro: 761 mmHg Actual: 9.53 Calc: 9.4	<input type="checkbox"/> WITHIN RANGE	0901
	<input type="checkbox"/> WITHIN RANGE	
	<input type="checkbox"/> WITHIN RANGE	
	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): 1837-3919 (EXP. DATE):	(LOT #): / (EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
0.72 / 0	0 / 0	<input type="checkbox"/> WITHIN RANGE	0910
1.19 / 1	1.01 / 1	<input type="checkbox"/> WITHIN RANGE	
9.55 / 10	10.08 / 10	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION (LOT #): 21070117 (EXP. DATE): 08/22	<input type="checkbox"/> STANDARD SOLUTION (S)
LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

PROBLEMS ENCOUNTERED

NONE

CORRECTIVE ACTIONS

NONE

SIGNED: [Signature] DATE: 3-16-22

CHECKED BY: _____ DATE: _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: <u>Aquatroll</u>	SAMPLER: JB / BM / AM
PROJECT NO.: 416559.0005.0000	SERIAL #: <u>728550</u>	DATE: <u>3-16-22</u>

PH CALIBRATION CHECK

pH 7 (LOT #): <u>21010066</u> (EXP. DATE): <u>8/22</u>	pH 10 (LOT #): <u>AK</u> (EXP. DATE):	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>6.71 / 7.00</u>	<u>4.24 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0850 / 0900</u>
<u>7.00 / 7.00</u>	<u>4.01 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0855 / 0905</u>
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

Post

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): <u>A/C</u> (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4.65 / 4.49</u>	<u>18.21</u>	<input type="checkbox"/> WITHIN RANGE	<u>0900</u>
<u>4.49 / 4.49</u>	<u>18.11</u>	<input type="checkbox"/> WITHIN RANGE	<u>0905</u>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): <u>21140143</u> (EXP. DATE): <u>4/23</u>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>217 / 228</u>	<u>18.37</u>	<input type="checkbox"/> WITHIN RANGE	<u>0915</u>
<u>228 / 228</u>	<u>18.57</u>	<input type="checkbox"/> WITHIN RANGE	<u>0920</u>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

Post

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Baro: 762 mky</u>	<input type="checkbox"/> WITHIN RANGE	<u>0910</u>
<u>Temp: 18</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc: 9.4</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Actual: 9.5</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #):	(LOT #):		
(EXP. DATE):	(EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<u>5.10 / 0</u>	<u>0.06 / 0</u>	<input type="checkbox"/> WITHIN RANGE	
<u>3.56 / 1</u>	<u>1.02 / 1</u>	<input type="checkbox"/> WITHIN RANGE	
<u>13.08 / 10</u>	<u>11.1 / 10</u>	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION (LOT #): <u>21070193</u> (EXP. DATE): <u>8/22</u>	<input type="checkbox"/> STANDARD SOLUTION (S) LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

<u>Lamotte 2020NE S/N 2949-0413</u>

PROBLEMS ENCOUNTERED

<u>NONE</u>

CORRECTIVE ACTIONS

<u>NONE</u>

SIGNED [Signature] DATE 3-16-22

CHECKED BY _____ DATE _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: <i>Insite Aquatroll</i>	SAMPLER: JB / BM / <i>(AM)</i>
PROJECT NO.: 416559.0005.0000	SERIAL #: <i>851425</i>	DATE: <i>3.17.22</i>

PH CALIBRATION CHECK

pH 7 (LOT #): <i>21010066</i> (EXP. DATE): <i>08/22</i>	pH 4 / 10 (LOT #): (EXP. DATE):	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<i>6.85 / 7.00</i>	<i>4.14 / 4.00</i>	<input type="checkbox"/> WITHIN RANGE	<i>0800</i>
<i>7.00 / 7.00</i>	<i>4.00 / 4.00</i>	<input type="checkbox"/> WITHIN RANGE	<i>0805</i>
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<i>4.48 / 4.49</i>	<i>16.28</i>	<input type="checkbox"/> WITHIN RANGE	<i>0807</i>
<i>4.49 / 4.49</i>	<i>16.31</i>	<input type="checkbox"/> WITHIN RANGE	<i>0810</i>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): <i>21140143</i> (EXP. DATE): <i>04/23</i>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<i>232.5 / 228</i>	<i>16.20</i>	<input type="checkbox"/> WITHIN RANGE	<i>0815</i>
<i>228 / 228</i>	<i>16.22</i>	<input type="checkbox"/> WITHIN RANGE	<i>0817</i>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<i>Temp: 16°C</i>	<input type="checkbox"/> WITHIN RANGE	<i>0813</i>
<i>Baro: 760mmHg</i>	<input type="checkbox"/> WITHIN RANGE	
<i>Actual: 9.83</i>	<input type="checkbox"/> WITHIN RANGE	
<i>calc: 9.8</i>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): <i>1837-3919</i> (EXP. DATE):	(LOT #): (EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<i>0.5 / 0</i>	<i>0 / 0</i>	<input type="checkbox"/> WITHIN RANGE	<i>0818</i>
<i>0.99 / 1</i>	<i>0.95 / 1</i>	<input type="checkbox"/> WITHIN RANGE	
<i>9.30 / 10</i>	<i>9.80 / 10</i>	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION	<input type="checkbox"/> STANDARD SOLUTION (S)
(LOT #): <i>21070193</i> (EXP. DATE): <i>08/22</i>	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

<i>NONE</i>

<i>NONE</i>

SIGNED: *[Signature]* DATE: *3-17-22*

CHECKED BY: _____ DATE: _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: <u>Agua Troll 400</u>	SAMPLER: <u>JB</u> BM / AM
PROJECT NO.: 416559.0005.0000	SERIAL #: <u>728566</u>	DATE: <u>3/17/2022</u>

PH CALIBRATION CHECK

pH 7 (LOT #): <u>21010066</u> (EXP. DATE): <u>08/2022</u>	pH 4 / 10 (LOT #): <u>21080189</u> (EXP. DATE): <u>06/2022</u>	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>6.77 / 7.00</u>	<u>9.82 / 10.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0812</u>
<u>/</u>	<u>4.57 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	
<u>7.00 / 7.00</u>	<u>10.09 / 10.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	<u>0814</u>
<u>/</u>	<u>3.99 / 4.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	<u>0822</u>

pre
pre
post
post

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4464 / 4490</u>	<u>16.38</u>	<input type="checkbox"/> WITHIN RANGE	<u>0823</u>
<u>4493 / 4490</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

pre
post

ORP CALIBRATION CHECK

CAL. READING (LOT #): (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>232.9 / 228</u>	<u>16.15</u>	<input type="checkbox"/> WITHIN RANGE	<u>0826</u>
<u>227.9 / 228</u>	<u>16.11</u>	<input checked="" type="checkbox"/> WITHIN RANGE	<u>0827</u>
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

pre
post

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Baro: 758.46</u>	<input type="checkbox"/> WITHIN RANGE	<u>0829</u>
<u>Temp: 16.07</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Act: 9.95</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc:</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): (EXP. DATE):	(LOT #): (EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<u>0.10 / 0.00</u>	<u>0.02 / 0.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	<u>0816</u>
<u>0.84 / 1.00</u>	<u>0.92 / 1.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	<u>0821</u>
<u>7.82 / 10.0</u>	<u>9.65 / 10.0</u>	<input checked="" type="checkbox"/> WITHIN RANGE	<u>0821</u>
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input type="checkbox"/> AUTOCAL SOLUTION	<input type="checkbox"/> STANDARD SOLUTION (S)
(LOT #): (EXP. DATE):	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

<u>NONE</u>

<u>NONE</u>

SIGNED [Signature] DATE 3-17-22

CHECKED BY _____ DATE _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: AquaTrail	SAMPLER: JB / BM / AM
PROJECT NO.: 416559.0005.0000	SERIAL #: 728550	DATE: 3-17-22

PH CALIBRATION CHECK

pH 7 (LOT #): 21010066 (EXP. DATE): 8/22	pH 4 / 10 (LOT #): AIC (EXP. DATE):	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
6.85 / 7.00	4.24 / 4.00	<input type="checkbox"/> WITHIN RANGE	0805 / 0815
6.99 / 7.00	4.00 / 4.00	<input type="checkbox"/> WITHIN RANGE	0810 / 0820
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
4.52 / 4.49	16.17	<input type="checkbox"/> WITHIN RANGE	0815
4.49 / 4.49	16.72	<input type="checkbox"/> WITHIN RANGE	0820
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
230 / 228	16.73	<input type="checkbox"/> WITHIN RANGE	0830
228 / 228	16.69	<input type="checkbox"/> WITHIN RANGE	0835
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
Baro: 760 mmHg Temp: 16.5 Calc: 9.7 Actual: 9.8	<input type="checkbox"/> WITHIN RANGE	0825
	<input type="checkbox"/> WITHIN RANGE	
	<input type="checkbox"/> WITHIN RANGE	
	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): (EXP. DATE):	(LOT #): (EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
3.45 / 0	0.02 / 0	<input type="checkbox"/> WITHIN RANGE	0840
5.77 / 1	0.77 / 1	<input type="checkbox"/> WITHIN RANGE	
11.7 / 10	8.99 / 10	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION	<input type="checkbox"/> STANDARD SOLUTION (S)
(LOT #): 21070193 (EXP. DATE): 08/22	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

Lamotte 2020 s/n 2949-043

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

NONE

NONE

[Signature]

SIGNED _____ DATE 3-17-22

CHECKED BY _____ DATE _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: <u>Aqua-tron</u>	SAMPLER: JB / BM / <u>AM</u>
PROJECT NO.: 416559.0005.0000	SERIAL #: <u>851425</u>	DATE: <u>3-18-22</u>

PH CALIBRATION CHECK

pH 7 (LOT #): <u>21010066</u> (EXP. DATE): <u>09/22</u>	pH 4 / 10 (LOT #): (EXP. DATE):	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>6.82 / 7.00</u>	<u>4.23 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0910</u>
<u>7.00 / 7.00</u>	<u>4.00 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0912</u>
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

Post

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4.51 / 4.49</u>	<u>15.16</u>	<input type="checkbox"/> WITHIN RANGE	<u>0914</u>
<u>4.49 / 4.49</u>	<u>15.22</u>	<input type="checkbox"/> WITHIN RANGE	<u>0916</u>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

Post

ORP CALIBRATION CHECK

CAL. READING (LOT #): <u>21140143</u> (EXP. DATE): <u>04/22</u>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>228 / 228</u>	<u>15.26</u>	<input type="checkbox"/> WITHIN RANGE	<u>0925</u>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Temp: 15°C</u>	<input type="checkbox"/> WITHIN RANGE	<u>0923</u>
<u>Baro: 763 mmHg</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Actual: 10.10</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc: 10.1</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #): <u>1837-3911</u> (EXP. DATE):	(LOT #): (EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<u>0.60 / 0</u>	<u>0 / 0</u>	<input type="checkbox"/> WITHIN RANGE	
<u>0.98 / 1</u>	<u>1.05 / 1</u>	<input type="checkbox"/> WITHIN RANGE	
<u>9.32 / 10</u>	<u>9.73 / 10</u>	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION	<input type="checkbox"/> STANDARD SOLUTION (S)
(LOT #): <u>21070193</u> (EXP. DATE): <u>09/22</u>	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

<u>None</u>	<u>None</u>

SIGNED: [Signature] DATE: 3-18-22

CHECKED BY: _____ DATE: _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station	MODEL: <u>AquaTroll</u>	SAMPLER: JB / BM / AM
PROJECT NO.: 416559.0005.0000	SERIAL #: <u>728550</u>	DATE: <u>3-18-22</u>

PH CALIBRATION CHECK

Post

pH 7 (LOT #): <u>21010066</u> (EXP. DATE): <u>8/22</u>	pH 4 / 10 (LOT #): <u>A/C</u> (EXP. DATE):	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>6.70 / 7.00</u>	<u>4.31 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0900/0910</u>
<u>7.00 / 7.07</u>	<u>4.00 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	<u>0905/0915</u>
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): <u>A/C</u> (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4.37 / 4.49</u>	<u>15.59</u>	<input type="checkbox"/> WITHIN RANGE	<u>0910</u>
<u>4.49 / 4.49</u>	<u>15.67</u>	<input type="checkbox"/> WITHIN RANGE	<u>0915</u>
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): <u>21140143</u> (EXP. DATE): <u>4/23</u>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>228 / 228</u>	<u>15.95</u>	<input type="checkbox"/> WITHIN RANGE	<u>0920</u>
<u>N/A / N/A</u>	<u>N/A</u>	<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	
/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Baro: 762mHg</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Temp: 15.5</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc: 10.0</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Actual: 10.0</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #):	(LOT #):		
(EXP. DATE):	(EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<u>5.68 / 0</u>	<u>0.0 / 0</u>	<input type="checkbox"/> WITHIN RANGE	<u>0925</u>
<u>3.71 / 1</u>	<u>0.7 / 1</u>	<input type="checkbox"/> WITHIN RANGE	
<u>11.6 / 10</u>	<u>10.8 / 10</u>	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION	<input type="checkbox"/> STANDARD SOLUTION (S)
(LOT #): <u>21070193</u>	LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
(EXP. DATE): <u>8/22</u>	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	
<input type="checkbox"/> _____	
	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER

NOTES

<u>Lamotte 2020WE S/N 2949-0413</u>

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

<u>NONE</u>	<u>NONE</u>
-------------	-------------

SIGNED [Signature] DATE 3-18-22

CHECKED BY _____ DATE _____



March 31, 2022

Kelly Hicks
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219

Re: CCR Groundwater Monitoring - Level 1 Package
Work Order: 573561

Dear Kelly Hicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 17, 2022. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. REV.1: The client sent a revised Chain of Custody to exclude Sodium in the metals list. The client requested a revised report to include the updated Chain of Custody and metals list.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1648.

Sincerely,

Meredith Boddiford
Project Manager

Purchase Order: 50149867
Chain of Custody: 200773
Enclosures



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Case Narrative

REV.1: The client sent a revised Chain of Custody to exclude Sodium in the metals list. The client requested a revised report to include the updated Chain of Custody and metals list.

**Receipt Narrative
for
Dominion Energy (50149867)
SDG: 573561**

March 31, 2022

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 17, 2022 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
573561001	MW-AP-01A-2022Q1
573561002	DU-WAT-CCR-AP-22103
573561003	MW-AP-08-2022Q1
573561004	MW-AP-11-2022Q1

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

Meredith Boddiford

Meredith Boddiford
Project Manager

Chain of Custody and Supporting Documentation

Page 1 of 2

Project # 416359.0005.0000.1.2
 GEL Quote #
 CUC Number 2024-01 Rev 1
 PO Number PO 50149867

GEL Laboratories LLC
 Chemistry | Environmental | Environmental | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number: 200773
 GEL Project Manager: Taylor Cannon Boob, GEL

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 760-1178

Client Name: Dominion Energy Phone # 803-258-1528

Project/Site Name: Watteree Station Ash Pond CCR 202201 Fax #
 Address: Watteree, South Carolina
 Collected By: B. Mohlin / J. Brantley Send Results To: AReed@dominenergy.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID <small>* For composites - indicate start and stop date/time</small>	Date Collected <small>(mm-dd-yy)</small>	*Time Collected <small>(Military (hhmm))</small>	QC Code (1)	Field Filtered (1)	Sample Matrix (1)	Refractive (1) <small>(yes, please specify sample index)</small>	(2) Known or possible hazards	Total number of containers	Sample Analysis Requested (5)						Preservative Type (6)	Comments <small>Note: extra sample is required for sample specific QC</small>
									CL, H, S, C, EPA No. 6	TDS	Lead	Mercury	As	Pb		
MW-AP-01A-202201	ms/ms D	3-16-22	1340	N	N	GW	N	8	2	2	2	2			EPA 200.8 - Sb, As, Ba, Be	
MW-AP-01-202201				N	N	GW	N								B, Cd, Cu, Cr, Co, Hg, Li	
MW-AP-02-202201				N	N	GW	N								Mn, Se, Ni, Ti	
MW-AP-03-202201				N	N	GW	N								EPA 245.2 - Hg	
MW-AP-04-202201				N	N	GW	N									
MW-AP-05-202201				N	N	GW	N									
DW-WAT-CCR-AP-202201	22103	3-16-22	-	FD	N	GW	N	4	1	1	1	1				See attached work order for details
MW-AP-06-202201				FD	N	AO	N									
MW-AP-07-202201				N	N	GW	N									

Chain of Custody Signatures

Relinquished By (Signature)	Date	Time	Received by (Signature)	Date	Time
<i>[Signature]</i>	3-17-22		<i>[Signature]</i>	3-17-22	

TAT Requested: Normal: Rush: Specify: _____

For Results: Yes No

Select Deliverable: 1C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact: Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number - Client Examined

2.) QC Codes: N = Normal Sample, TB = Top Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a "Y" for yes the sample was field filtered or "N" for sample was not field filtered.

4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Mist/Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Fibre, P = Pipe, T = Tissue, F = Fecal, N = No oil

5.) Sample Analysis Requested: Volume of method requested (e.g. 81001, 60100/7490A) and number of containers provided for each test (e.g. 3, 1000/ 2" etc.)

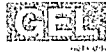
6.) Preservative Type: HA = Hydrochloric Acid, M = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, BX = Borax, ST = Sodium Thiosulfate. If no preservative is added, leave field blank.

7.) KNOWS OR POSSIBLE HAZARDS

Characteristic Hazards	Listed Waste	Other
FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes) Waste code(s):	OT = Other / Unknown (i.e.: High-low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Page 5 of 5
 Project # 416559 (0015 0000 52)
 GEL Quote #
 COC Number 2022101 Rev 1
 PO Number PO 501-99867



Laboratories LLC
 Chemistry | Hydrogeology | Environmental | Specialty Analytical
Chain of Custody and Analytical Request

GEL Laboratories, LLC
 3040 Savage Road
 Charleston, SC 29407
 Phone: (843) 558-8171
 Fax: (843) 760-1178

GEL Work Order Number: 200773 GEL Project Manager: Taylor-Cannon Becky Feld

Sample ID <i>* For comparites - indicate start and stop date time</i>	Date Collected (mm-dd-yy)	Time Collected (M:PM)	QC Code #	Field Filtered	Sample Matrix	Should this sample be considered:	Sample Analysis Requested ⁽⁶⁾ (fill in the number of containers for each test)										Preservative Type (6)	Comments Note: extra sample is required for sample specific QC	
							Heavy Metals (see table on page 10)	Trace Metals	Trace Organics	Trace PCBs	Trace Pesticides	Trace PAHs	Trace PCBs	Trace PCBs	Trace PCBs	Trace PCBs			Trace PCBs
MW-AP-08-202201	3-16-22	1120	N	N	GW	N	4	1	1	1	1	1	1	1	1	1	1	EPA 200.8 - Sb, As, Ba, Be	
MW-AP-09-202201			N	N	GW	N												B, Cd, Cr, Cu, Pb, Tl	
MW-AP-10-202201			N	N	GW	N												Mn, Se, Tl	
MW-AP-11-202201	3-16-22	1630	N	N	GW	N	4	1	1	1	1	1	1	1	1	1	1	EPA 245.2 - Hg	
MW-AP-12-202201			N	N	GW	N													
MW-AP-13-202201			N	N	GW	N													
MW-AP-14-202201			N	N	GW	N													
MW-AP-15-202201			N	N	GW	N													
MW-AP-16-202201			N	N	GW	N													
MW-AP-17-202201			N	N	GW	N													

Chain of Custody Signatures				TAT Requested: Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Specify: _____			
Relinquished by (signed)	Date	Time	Received by (signed)	Date	Time	Fax Results <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<i>[Signature]</i>	3-17-22		<i>[Signature]</i>	3-17-22	1554	Select Deliverable: <input type="checkbox"/> C of A <input type="checkbox"/> QC Summary <input checked="" type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4	
Additional Remarks:				For Lab Receiving Use Only: Custody Seal Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temp: _____ °C			
For sample shipping and delivery details, see Sample Receipt & Review form (SRR)				Sample Collection Time Zone <input checked="" type="checkbox"/> Eastern <input type="checkbox"/> Pacific <input type="checkbox"/> Central <input type="checkbox"/> Mountain <input type="checkbox"/> Other			

1) Chain of Custody Number - Chain Discontinued

2) QC Codes: N - Normal Sample, EB - Trip Blank, ED - Field Duplicate, EH - Equipment Blank, MS - Matrix Spike Sample, MSD - Matrix Spike Duplicate Sample, G - Gas, C - Composite

3) Field Filtered: For liquid matrices, indicate with a 'Y' for yes the sample was field filtered or a 'N' for sample was not field filtered

4) Matrix Codes: DW - Drinking Water, GW - Groundwater, SW - Surface Water, WW - Waste Water, W - Water, ML - Misc. Liquid, SL - Soil, SH - Sediment, SL - Sludge, SW - Solid Waste, D - Oil, F - Filter, P - Wipe, F - Fum, F - Fecal, S - Solid

5) Sample Analysis Requested - Analytical method requested (ie: 8250B, 8010B/7470A) and number of containers provided for each (ie: 2000 - 1, 6010: 2, 500 - 1)

6) Preservative Type: BA - Hydrochloric Acid, NI - Nitric Acid, NH - Sodium Hydroxide, NA - Sodium Acetate, AA - Acetic Acid, BX - Brevort, SF - Sodium Hypochlorite, BWP - preservative added, leave field blank

7) **KNOWN OR POSSIBLE HAZARDS**

Characteristic Hazards FI = Flammable/ignitable CO = Corrosive RE = Reactive	Listed Waste LW = Listed Waste (P, K, P and U-listed wastes, I Waste codes)	Other OX = Other - Unknown (i.e.: High pH, asbestos, beryllium, uranium, other misc. health hazards, etc.) Description:
--	--	--

RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals, Pb = Lead

TSCA Regulated: PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, and sources, etc.)

MB

SAMPLE RECEIPT & REVIEW FORM

Client: <u>DUNN</u>	SDG/AR/COC/Work Order: <u>573561</u>
Received By: <u>[Signature]</u>	Date Received: <u>3-17-22 TRR-22</u>
Enter one tracking number per line below.	IR temperature gun # <u>41400</u> Daily Calibration performed <u>Y/N</u>
Enter courier if applicable and no tracking available.	Uncorrected temperature readings are to the 0.1 degree with final recorded temperatures rounded to the 0.5 degree. Provide individual container details when a cooler requiring 0 <= 6.0C is identified as out of specification.
<u>Cooler #1</u>	Uncorrected Temp: <u>1.0</u> IR Correction Factor: +/- <u>0</u> Final Recorded Temp: <u>2.0</u> Within 0.0-6.0C? <u>Y/N</u>
<u>Cooler #2</u>	Uncorrected Temp: <u>1.3</u> IR Correction Factor: +/- <u>0</u> Final Recorded Temp: <u>1.0</u> Within 0.0-6.0C? <u>Y/N</u>
<u>Cooler #3</u>	Uncorrected Temp: <u>0.1</u> IR Correction Factor: +/- <u>0</u> Final Recorded Temp: <u>0.0</u> Within 0.0-6.0C? <u>Y/N</u>
<u>Cooler #4</u>	Uncorrected Temp: <u>0.4</u> IR Correction Factor: +/- <u>0</u> Final Recorded Temp: <u>0.0</u> Within 0.0-6.0C? <u>Y/N</u>
<u>Cooler #5</u>	Uncorrected Temp: <u>3.4</u> IR Correction Factor: +/- <u>0</u> Final Recorded Temp: <u>3.0</u> Within 0.0-6.0C? <u>Y/N</u>
<u>Cooler #6</u>	Uncorrected Temp: <u>4.0</u> IR Correction Factor: +/- <u>0</u> Final Recorded Temp: <u>4.0</u> Within 0.0-6.0C? <u>Y/N</u>
Suspected Hazard Information	Yes No "If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria	Yes	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
4 Samples requiring cold preservation were unpacked directly into cold storage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Uncorrected Temp: Correction Factor: +/- Final Recorded Temp: Within 0.0-6.0C? Y/N
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected:
6 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
7 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
8 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
9 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
10 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
11 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 3/23/22 Page 1 of 1

Laboratory Certifications

List of current GEL Certifications as of 31 March 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Dominion Energy
SDG #: 573561

Product: Determination of Metals by ICP-MS

Analytical Method: EPA 200.8 SC_NPDES

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2242905

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: EPA 245.1/245.2

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2245050

Preparation Method: EPA 200.2

Preparation Procedure: GL-MA-E-016 REV# 18

Preparation Batch: 2242904

Preparation Method: EPA 245.1/245.2 Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2245049

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573561001	MW-AP-01A-2022Q1
573561002	DU-WAT-CCR-AP-22103
573561003	MW-AP-08-2022Q1
573561004	MW-AP-11-2022Q1
1205044452	Method Blank (MB)ICP-MS
1205044453	Laboratory Control Sample (LCS)
1205044456	573561001(MW-AP-01A-2022Q1L) Serial Dilution (SD)
1205044454	573561001(MW-AP-01A-2022Q1D) Sample Duplicate (DUP)
1205044455	573561001(MW-AP-01A-2022Q1S) Matrix Spike (MS)
1205048939	Method Blank (MB)CVAA
1205048940	Laboratory Control Sample (LCS)
1205048943	573129001(NonSDGL) Serial Dilution (SD)
1205048946	573561001(MW-AP-01A-2022Q1L) Serial Dilution (SD)
1205048941	573129001(NonSDGD) Sample Duplicate (DUP)
1205048944	573561001(MW-AP-01A-2022Q1D) Sample Duplicate (DUP)
1205048942	573129001(NonSDGS) Matrix Spike (MS)
1205048945	573561001(MW-AP-01A-2022Q1S) Matrix Spike (MS)

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

Data Summary:

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

following exceptions.

Calibration Information

ICSA/ICSAB Statement

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

Continuing Calibration Blanks (CCB) Requirements

All continuing calibration blanks(CCB) bracketing the sample in this SDG did not meet the acceptance criteria. Sample 573561004 bracketed by this CCB, however, contained molybdenum with a concentration at least ten times greater than the concentration in the CCB. This indicates that any contribution to the concentration of molybdenum in the samples from potential laboratory contamination would be minimal. The continuing calibration blank (CCB) bracketing the sample in this SDG did not meet the acceptance criteria. samples 573561001, 57361002 and 573561003 bracketed by this CCB, however, contained molybdenum less than the RDL. This indicates that any contribution to the concentration of molybdenum in the samples from potential laboratory contamination would be minimal. ICP-MS.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 573561002 (DU-WAT-CCR-AP-22103), 573561003 (MW-AP-08-2022Q1) and 573561004 (MW-AP-11-2022Q1)-ICP-MS were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	573561		
	002	003	004
Boron	5X	5X	20X
Calcium	1X	1X	20X
Iron	5X	5X	1X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573561 GEL Work Order: 573561

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Edmund Frampton

Date: 29 MAR 2022

Title: Group Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573561

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573561001

BASIS: As Received

DATE COLLECTED 16-MAR-22

CLIENT ID: MW-AP-01A-2022Q1

LEVEL: Low

DATE RECEIVED 17-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-39-3	Barium	59.4	ug/L		0.500	2.00	2.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-41-7	Beryllium	0.245	ug/L	J	0.200	0.500	0.500	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-42-8	Boron	10.9	ug/L	J	4.00	15.0	15.0	1	MS	PRB	03/24/22 15:12	220324-2	2242905
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-70-2	Calcium	593	ug/L		30.0	100	100	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-48-4	Cobalt	0.523	ug/L	J	0.100	1.00	1.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7439-92-1	Lead	1.13	ug/L	J	0.500	2.00	2.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	MTMI	03/25/22 10:09	032522W2-4	2245050
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	PRB	03/25/22 10:39	220325-3	2242905
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/23/22 21:54	220323-1	2242905
7440-28-0	Thallium	0.165	ug/L	J	0.125	0.500	0.500	1	MS	PRB	03/24/22 15:12	220324-2	2242905

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2242905	2242904	EPA 200.2	50	mL	50	mL	03/18/22	LG2
2245050	2245049	EPA 245.1/245.2 Prep	20	mL	20	mL	03/24/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573561

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 573561002

BASIS: As Received

DATE COLLECTED 16-MAR-22

CLIENT ID: DU-WAT-CCR-AP-22103

LEVEL: Low

DATE RECEIVED 17-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-38-2	Arsenic	2.06	ug/L	J	1.66	5.00	5.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-39-3	Barium	197	ug/L		0.500	2.00	2.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-41-7	Beryllium	4.74	ug/L		0.200	0.500	0.500	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-42-8	Boron	350	ug/L		20.0	75.0	75.0	5	MS	PRB	03/24/22 15:43	220324-2	2242905
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-70-2	Calcium	22800	ug/L		30.0	100	100	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-48-4	Cobalt	5.28	ug/L		0.100	1.00	1.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7439-93-2	Lithium	10.0	ug/L		2.00	10.0	10.0	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	MTMI	03/25/22 10:17	032522W2-4	2245050
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	PRB	03/25/22 11:03	220325-3	2242905
7782-49-2	Selenium	3.46	ug/L	J	1.50	5.00	5.00	1	MS	PRB	03/23/22 22:17	220323-1	2242905
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/24/22 15:34	220324-2	2242905

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2242905	2242904	EPA 200.2	50	mL	50	mL	03/18/22	LG2
2245050	2245049	EPA 245.1/245.2 Prep	20	mL	20	mL	03/24/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573561

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573561003

BASIS: As Received

DATE COLLECTED 16-MAR-22

CLIENT ID: MW-AP-08-2022Q1

LEVEL: Low

DATE RECEIVED 17-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-38-2	Arsenic	2.28	ug/L	J	1.66	5.00	5.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-39-3	Barium	200	ug/L		0.500	2.00	2.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-41-7	Beryllium	4.31	ug/L		0.200	0.500	0.500	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-42-8	Boron	314	ug/L		20.0	75.0	75.0	5	MS	PRB	03/24/22 15:46	220324-2	2242905
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-70-2	Calcium	22500	ug/L		30.0	100	100	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-48-4	Cobalt	4.25	ug/L		0.100	1.00	1.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7439-93-2	Lithium	9.69	ug/L	J	2.00	10.0	10.0	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	MTMI	03/25/22 10:19	032522W2-4	2245050
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	PRB	03/25/22 11:06	220325-3	2242905
7782-49-2	Selenium	3.79	ug/L	J	1.50	5.00	5.00	1	MS	PRB	03/23/22 22:21	220323-1	2242905
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/24/22 15:37	220324-2	2242905

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2242905	2242904	EPA 200.2	50	mL	50	mL	03/18/22	LG2
2245050	2245049	EPA 245.1/245.2 Prep	20	mL	20	mL	03/24/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573561

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573561004

BASIS: As Received

DATE COLLECTED 16-MAR-22

CLIENT ID: MW-AP-11-2022Q1

LEVEL: Low

DATE RECEIVED 17-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-38-2	Arsenic	701	ug/L		1.66	5.00	5.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-39-3	Barium	162	ug/L		0.500	2.00	2.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-42-8	Boron	732	ug/L		80.0	300	300	20	MS	PRB	03/24/22 15:50	220324-2	2242905
7440-43-9	Cadmium	0.0380	ug/L	J	0.0300	0.100	0.100	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-70-2	Calcium	32400	ug/L		600	2000	2000	20	MS	PRB	03/24/22 15:50	220324-2	2242905
7440-47-3	Chromium	37.0	ug/L		1.00	3.00	3.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-48-4	Cobalt	2.90	ug/L		0.100	1.00	1.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7439-92-1	Lead	0.647	ug/L	J	0.500	2.00	2.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7439-93-2	Lithium	58.6	ug/L		2.00	10.0	10.0	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	MTMI	03/25/22 14:11	032522W2-4	2245050
7439-98-7	Molybdenum	19.4	ug/L		0.167	0.500	0.500	1	MS	PRB	03/25/22 11:10	220325-3	2242905
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/23/22 22:24	220323-1	2242905
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/24/22 15:40	220324-2	2242905

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2242905	2242904	EPA 200.2	50	mL	50	mL	03/18/22	LG2
2245050	2245049	EPA 245.1/245.2 Prep	20	mL	20	mL	03/24/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Antimony	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Arsenic	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Barium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Beryllium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Cadmium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Chromium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Cobalt	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Lead	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Lithium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Selenium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	23-MAR-22 17:51	220323-1
	Boron	98.8	ug/L	100	ug/L	98.8	90.0 – 110.0	MS	24-MAR-22 14:05	220324-2
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	MS	24-MAR-22 14:05	220324-2
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	24-MAR-22 14:05	220324-2
	Mercury	4.81	ug/L	5	ug/L	96.1	95.0 – 105.0	AV	25-MAR-22 09:26	032522W2-4
	Molybdenum	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	25-MAR-22 10:08	220325-3
CCV01										
	Antimony	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Arsenic	48	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Barium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Beryllium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Cadmium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Chromium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Cobalt	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Lead	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Lithium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Selenium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	23-MAR-22 18:08	220323-1
	Boron	101	ug/L	100	ug/L	101.2	90.0 – 110.0	MS	24-MAR-22 14:19	220324-2
	Calcium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	MS	24-MAR-22 14:19	220324-2
	Thallium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	24-MAR-22 14:19	220324-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV02	Mercury	4.91	ug/L	5	ug/L	98.1	90.0 – 110.0	AV	25-MAR-22 09:31	032522W2-4
	Molybdenum	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25-MAR-22 10:25	220325-3
	Antimony	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Arsenic	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Barium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Beryllium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Cadmium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Calcium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Chromium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Cobalt	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Lead	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Lithium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Selenium	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	23-MAR-22 18:18	220323-1
	Boron	99.6	ug/L	100	ug/L	99.6	90.0 – 110.0	MS	24-MAR-22 14:28	220324-2
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	MS	24-MAR-22 14:28	220324-2
	Thallium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	24-MAR-22 14:28	220324-2
	Mercury	4.88	ug/L	5	ug/L	97.7	90.0 – 110.0	AV	25-MAR-22 09:35	032522W2-4
	Molybdenum	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	25-MAR-22 10:56	220325-3
CCV03	Antimony	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Arsenic	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Barium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Beryllium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Cadmium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Chromium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Cobalt	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Lead	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
	Lithium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1
Selenium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	23-MAR-22 21:40	220323-1	

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Boron	99	ug/L	100	ug/L	99	90.0 – 110.0	MS	24-MAR-22 14:59	220324-2
	Calcium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	MS	24-MAR-22 14:59	220324-2
	Thallium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	24-MAR-22 14:59	220324-2
	Mercury	4.72	ug/L	5	ug/L	94.4	90.0 – 110.0	AV	25-MAR-22 10:03	032522W2-4
	Molybdenum	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25-MAR-22 11:34	220325-3
CCV04	Antimony	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Arsenic	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Barium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Beryllium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Cadmium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Calcium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Chromium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Cobalt	48.1	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Lead	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Lithium	47.8	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Selenium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	23-MAR-22 22:11	220323-1
	Boron	98.8	ug/L	100	ug/L	98.8	90.0 – 110.0	MS	24-MAR-22 15:28	220324-2
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	MS	24-MAR-22 15:28	220324-2
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	24-MAR-22 15:28	220324-2
	Mercury	4.59	ug/L	5	ug/L	91.7	90.0 – 110.0	AV	25-MAR-22 10:23	032522W2-4
CCV05	Antimony	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Barium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Chromium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Cobalt	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Lead	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lithium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Selenium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	23-MAR-22 22:38	220323-1
	Boron	98.9	ug/L	100	ug/L	98.9	90.0 – 110.0	MS	24-MAR-22 16:02	220324-2
	Calcium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	MS	24-MAR-22 16:02	220324-2
	Thallium	49.3	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	24-MAR-22 16:02	220324-2
	Mercury	4.68	ug/L	5	ug/L	93.6	90.0 – 110.0	AV	25-MAR-22 14:05	032522W2-4
CCV06	Mercury	4.72	ug/L	5	ug/L	94.3	90.0 – 110.0	AV	25-MAR-22 14:15	032522W2-4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Antimony	2.99	ug/L	3	ug/L	99.5	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Arsenic	4.98	ug/L	5	ug/L	99.7	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Barium	4.19	ug/L	4	ug/L	104.7	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Beryllium	.579	ug/L	.5	ug/L	115.8	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Cadmium	1.05	ug/L	1	ug/L	104.7	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Calcium	218	ug/L	200	ug/L	109.1	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Chromium	10.4	ug/L	10	ug/L	103.5	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Cobalt	1.02	ug/L	1	ug/L	101.9	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Lead	2.1	ug/L	2	ug/L	104.8	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Lithium	10.3	ug/L	10	ug/L	102.5	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Selenium	5.16	ug/L	5	ug/L	103.2	70.0 – 130.0	MS	23-MAR-22 17:58	220323-1
	Boron	14.5	ug/L	15	ug/L	96.7	70.0 – 130.0	MS	24-MAR-22 14:11	220324-2
	Calcium	226	ug/L	200	ug/L	113.2	70.0 – 130.0	MS	24-MAR-22 14:11	220324-2
	Thallium	1.8	ug/L	2	ug/L	89.9	70.0 – 130.0	MS	24-MAR-22 14:11	220324-2
	Mercury	.185	ug/L	.2	ug/L	92.5	70.0 – 130.0	AV	25-MAR-22 09:30	032522W2-4
	Molybdenum	.985	ug/L	1	ug/L	98.5	70.0 – 130.0	MS	25-MAR-22 10:15	220325-3
CRDL02										
	Antimony	3.06	ug/L	3	ug/L	101.9	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Arsenic	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Barium	4.39	ug/L	4	ug/L	109.7	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Beryllium	.468	ug/L	.5	ug/L	93.6	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Cadmium	1.03	ug/L	1	ug/L	103.1	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Calcium	225	ug/L	200	ug/L	112.6	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Chromium	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Cobalt	1.05	ug/L	1	ug/L	104.9	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Lead	2.13	ug/L	2	ug/L	106.6	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Lithium	10.2	ug/L	10	ug/L	102	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Selenium	4.89	ug/L	5	ug/L	97.9	70.0 – 130.0	MS	23-MAR-22 21:30	220323-1
	Boron	14.5	ug/L	15	ug/L	96.5	70.0 – 130.0	MS	24-MAR-22 14:42	220324-2
	Calcium	223	ug/L	200	ug/L	111.7	70.0 – 130.0	MS	24-MAR-22 14:42	220324-2
	Thallium	1.79	ug/L	2	ug/L	89.4	70.0 – 130.0	MS	24-MAR-22 14:42	220324-2
	Molybdenum	.96	ug/L	1	ug/L	96	70.0 – 130.0	MS	25-MAR-22 11:24	220325-3

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Mercury	.172	ug/L	.2	ug/L	86	70.0 – 130.0	AV	25-MAR-22 14:13	032522W2-4
CRDL03	Antimony	3.01	ug/L	3	ug/L	100.4	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Arsenic	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Barium	4.1	ug/L	4	ug/L	102.4	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Beryllium	.507	ug/L	.5	ug/L	101.4	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Cadmium	.978	ug/L	1	ug/L	97.8	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Calcium	223	ug/L	200	ug/L	111.7	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Chromium	10.2	ug/L	10	ug/L	101.8	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Cobalt	1.02	ug/L	1	ug/L	102.1	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Lead	2.13	ug/L	2	ug/L	106.4	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Lithium	10.3	ug/L	10	ug/L	102.7	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Selenium	4.91	ug/L	5	ug/L	98.1	70.0 – 130.0	MS	23-MAR-22 22:28	220323-1
	Boron	14.5	ug/L	15	ug/L	96.7	70.0 – 130.0	MS	24-MAR-22 15:53	220324-2
	Calcium	218	ug/L	200	ug/L	108.9	70.0 – 130.0	MS	24-MAR-22 15:53	220324-2
	Thallium	1.65	ug/L	2	ug/L	82.6	70.0 – 130.0	MS	24-MAR-22 15:53	220324-2

*Analytical Methods:

MS	EPA 200.8 SC_NPDES
AV	EPA 245.1/245.2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run</u>
ICB01										
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	23-MAR-22 17:55	220323-1
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	23-MAR-22 17:55	220323-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-MAR-22 17:55	220323-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	23-MAR-22 17:55	220323-1
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	24-MAR-22 14:08	220324-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	24-MAR-22 14:08	220324-2
	Thallium	0.227	+/-0.25	B	0.125	0.5	LIQ	MS	24-MAR-22 14:08	220324-2
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	25-MAR-22 09:28	032522W2-4
	Molybdenum	0.167	+/-0.25	U	0.167	0.5	LIQ	MS	25-MAR-22 10:11	220325-3
CCB01										
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	23-MAR-22 18:12	220323-1
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	23-MAR-22 18:12	220323-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-MAR-22 18:12	220323-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	23-MAR-22 18:12	220323-1
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	24-MAR-22 14:22	220324-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	24-MAR-22 14:22	220324-2
	Thallium	0.185	+/-0.25	B	0.125	0.5	LIQ	MS	24-MAR-22 14:22	220324-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	25-MAR-22 09:33	032522W2-4
	Molybdenum	0.409	+/-0.25	B	0.167	0.5	LIQ	MS	25-MAR-22 10:28	220325-3
CCB02	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	23-MAR-22 18:22	220323-1
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	23-MAR-22 18:22	220323-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-MAR-22 18:22	220323-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	23-MAR-22 18:22	220323-1
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	24-MAR-22 14:31	220324-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	24-MAR-22 14:31	220324-2
	Thallium	0.264	+/-0.25	B	0.125	0.5	LIQ	MS	24-MAR-22 14:31	220324-2
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	25-MAR-22 09:37	032522W2-4
	Molybdenum	0.167	+/-0.25	U	0.167	0.5	LIQ	MS	25-MAR-22 11:00	220325-3
CCB03	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	23-MAR-22 21:44	220323-1
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	23-MAR-22 21:44	220323-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-MAR-22 21:44	220323-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	23-MAR-22 21:44	220323-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	23-MAR-22 21:44	220323-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	24-MAR-22 15:03	220324-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	24-MAR-22 15:03	220324-2
	Thallium	0.153	+/-0.25	B	0.125	0.5	LIQ	MS	24-MAR-22 15:03	220324-2
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	25-MAR-22 10:05	032522W2-4
	Molybdenum	0.475	+/-0.25	B	0.167	0.5	LIQ	MS	25-MAR-22 11:38	220325-3
CCB04	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	23-MAR-22 22:14	220323-1
	Cadmium	0.037	+/-0.05	B	0.03	0.1	LIQ	MS	23-MAR-22 22:14	220323-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-MAR-22 22:14	220323-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	23-MAR-22 22:14	220323-1
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	24-MAR-22 15:31	220324-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	24-MAR-22 15:31	220324-2
	Thallium	0.159	+/-0.25	B	0.125	0.5	LIQ	MS	24-MAR-22 15:31	220324-2
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	25-MAR-22 10:24	032522W2-4
CCB05	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	23-MAR-22 22:41	220323-1
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	23-MAR-22 22:41	220323-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-MAR-22 22:41	220323-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	23-MAR-22 22:41	220323-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	23-MAR-22 22:41	220323-1
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	24-MAR-22 16:05	220324-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	24-MAR-22 16:05	220324-2
	Thallium	0.15	+/-0.25	B	0.125	0.5	LIQ	MS	24-MAR-22 16:05	220324-2
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	25-MAR-22 14:07	032522W2-4
CCB06	Mercury	0.156	+/-0.1	B	0.067	0.2	LIQ	AV	25-MAR-22 14:17	032522W2-4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 573561
Contract: DMNN00101
Matrix: GW

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205044452	Antimony	0.600	ug/L	+/-1	U	MS	0.600	2.00
	Arsenic	1.66	ug/L	+/-2.5	U	MS	1.66	5.00
	Barium	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Beryllium	0.200	ug/L	+/-0.25	U	MS	0.200	0.500
	Boron	4.00	ug/L	+/-7.5	U	MS	4.00	15.0
	Cadmium	0.0300	ug/L	+/-0.05	U	MS	0.0300	0.100
	Calcium	30.0	ug/L	+/-50	U	MS	30.0	100
	Chromium	1.00	ug/L	+/-1.5	U	MS	1.00	3.00
	Cobalt	0.100	ug/L	+/-0.5	U	MS	0.100	1.00
	Lead	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Lithium	2.00	ug/L	+/-5	U	MS	2.00	10.0
	Molybdenum	0.205	ug/L	+/-0.25	B	MS	0.167	0.500
	Selenium	1.50	ug/L	+/-2.5	U	MS	1.50	5.00
	Thallium	0.125	ug/L	+/-0.25	U	MS	0.125	0.500
1205048939	Mercury	0.0670	ug/L	+/-0.1	U	AV	0.0670	0.200

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
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Interference Check Sample

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.16	ug/L					23-MAR-22 18:02	220323-1
	Arsenic	0.332	ug/L					23-MAR-22 18:02	220323-1
	Barium	0.234	ug/L					23-MAR-22 18:02	220323-1
	Beryllium	0.021	ug/L					23-MAR-22 18:02	220323-1
	Cadmium	1.11	ug/L					23-MAR-22 18:02	220323-1
	Calcium	101000	ug/L	100000	ug/L	101	80.0 - 120.0	23-MAR-22 18:02	220323-1
	Chromium	0.696	ug/L					23-MAR-22 18:02	220323-1
	Cobalt	0.913	ug/L					23-MAR-22 18:02	220323-1
	Lead	0.426	ug/L					23-MAR-22 18:02	220323-1
	Lithium	0.015	ug/L					23-MAR-22 18:02	220323-1
	Selenium	0.123	ug/L					23-MAR-22 18:02	220323-1
ICSAB01									
	Antimony	19.9	ug/L	20	ug/L	99.4	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Arsenic	20.2	ug/L	20	ug/L	101	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Barium	19.5	ug/L	20	ug/L	97.5	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Beryllium	19.0	ug/L	20	ug/L	94.9	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Cadmium	19.9	ug/L	20.83	ug/L	95.3	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Calcium	99100	ug/L	100000	ug/L	99.1	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Chromium	20.2	ug/L	20	ug/L	101	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Cobalt	19.8	ug/L	21.05	ug/L	94.2	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Lead	19.0	ug/L	20	ug/L	95	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Lithium	20.1	ug/L	20	ug/L	100	80.0 - 120.0	23-MAR-22 18:05	220323-1
	Selenium	20.8	ug/L	20	ug/L	104	80.0 - 120.0	23-MAR-22 18:05	220323-1
ICSA02									
	Antimony	0.189	ug/L					23-MAR-22 20:20	220323-1
	Arsenic	0.303	ug/L					23-MAR-22 20:20	220323-1
	Barium	0.319	ug/L					23-MAR-22 20:20	220323-1
	Beryllium	0.015	ug/L					23-MAR-22 20:20	220323-1
	Cadmium	1.08	ug/L					23-MAR-22 20:20	220323-1
	Calcium	100000	ug/L	100000	ug/L	100	80.0 - 120.0	23-MAR-22 20:20	220323-1

METALS

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Interference Check Sample

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	0.728	ug/L					23-MAR-22 20:20	220323-1
	Cobalt	0.893	ug/L					23-MAR-22 20:20	220323-1
	Lead	0.448	ug/L					23-MAR-22 20:20	220323-1
	Lithium	0.026	ug/L					23-MAR-22 20:20	220323-1
	Selenium	0.223	ug/L					23-MAR-22 20:20	220323-1
ICSAB02									
	Antimony	20.5	ug/L	20	ug/L	102	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Arsenic	20.5	ug/L	20	ug/L	102	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Barium	19.8	ug/L	20	ug/L	98.7	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Beryllium	19.1	ug/L	20	ug/L	95.4	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Cadmium	20.1	ug/L	20.83	ug/L	96.3	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Calcium	99300	ug/L	100000	ug/L	99.3	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Chromium	20.4	ug/L	20	ug/L	102	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Cobalt	19.7	ug/L	21.05	ug/L	93.6	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Lead	19.0	ug/L	20	ug/L	95.2	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Lithium	20.1	ug/L	20	ug/L	100	80.0 - 120.0	23-MAR-22 20:23	220323-1
	Selenium	20.3	ug/L	20	ug/L	101	80.0 - 120.0	23-MAR-22 20:23	220323-1
ICSA03									
	Antimony	0.193	ug/L					23-MAR-22 21:34	220323-1
	Arsenic	0.369	ug/L					23-MAR-22 21:34	220323-1
	Barium	0.256	ug/L					23-MAR-22 21:34	220323-1
	Beryllium	0.022	ug/L					23-MAR-22 21:34	220323-1
	Cadmium	1.11	ug/L					23-MAR-22 21:34	220323-1
	Calcium	99200	ug/L	100000	ug/L	99.2	80.0 - 120.0	23-MAR-22 21:34	220323-1
	Chromium	0.743	ug/L					23-MAR-22 21:34	220323-1
	Cobalt	0.914	ug/L					23-MAR-22 21:34	220323-1
	Lead	0.433	ug/L					23-MAR-22 21:34	220323-1
	Lithium	0.025	ug/L					23-MAR-22 21:34	220323-1
	Selenium	0.199	ug/L					23-MAR-22 21:34	220323-1

METALS
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Interference Check Sample

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSAB03									
	Antimony	20.8	ug/L	20	ug/L	104	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Barium	19.9	ug/L	20	ug/L	99.4	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Beryllium	19.5	ug/L	20	ug/L	97.2	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Cadmium	20.6	ug/L	20.83	ug/L	98.9	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Calcium	99000	ug/L	100000	ug/L	99	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Chromium	20.3	ug/L	20	ug/L	102	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Cobalt	19.7	ug/L	21.05	ug/L	93.5	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Lead	19.5	ug/L	20	ug/L	97.3	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Lithium	20.2	ug/L	20	ug/L	101	80.0 – 120.0	23-MAR-22 21:37	220323-1
	Selenium	20.4	ug/L	20	ug/L	102	80.0 – 120.0	23-MAR-22 21:37	220323-1
ICSA04									
	Antimony	0.191	ug/L					23-MAR-22 22:31	220323-1
	Arsenic	0.417	ug/L					23-MAR-22 22:31	220323-1
	Barium	0.294	ug/L					23-MAR-22 22:31	220323-1
	Beryllium	0.031	ug/L					23-MAR-22 22:31	220323-1
	Cadmium	0.977	ug/L					23-MAR-22 22:31	220323-1
	Calcium	98200	ug/L	100000	ug/L	98.2	80.0 – 120.0	23-MAR-22 22:31	220323-1
	Chromium	0.717	ug/L					23-MAR-22 22:31	220323-1
	Cobalt	0.921	ug/L					23-MAR-22 22:31	220323-1
	Lead	0.434	ug/L					23-MAR-22 22:31	220323-1
	Lithium	0.019	ug/L					23-MAR-22 22:31	220323-1
	Selenium	0.112	ug/L					23-MAR-22 22:31	220323-1
ICSAB04									
	Antimony	20.7	ug/L	20	ug/L	104	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Arsenic	21.0	ug/L	20	ug/L	105	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Barium	19.9	ug/L	20	ug/L	99.4	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Beryllium	19.2	ug/L	20	ug/L	96.2	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Cadmium	20.5	ug/L	20.83	ug/L	98.6	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Calcium	98200	ug/L	100000	ug/L	98.2	80.0 – 120.0	23-MAR-22 22:34	220323-1

METALS
-4-
Interference Check Sample

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	20.1	ug/L	20	ug/L	101	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Cobalt	19.6	ug/L	21.05	ug/L	93.3	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Lead	19.4	ug/L	20	ug/L	97.1	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Lithium	20.1	ug/L	20	ug/L	100	80.0 – 120.0	23-MAR-22 22:34	220323-1
	Selenium	20.7	ug/L	20	ug/L	103	80.0 – 120.0	23-MAR-22 22:34	220323-1

METALS
-4-
Interference Check Sample

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Boron	1.66	ug/L					24-MAR-22 14:14	220324-2
	Calcium	98300	ug/L	100000	ug/L	98.3	80.0 – 120.0	24-MAR-22 14:14	220324-2
	Thallium	0.095	ug/L					24-MAR-22 14:14	220324-2
ICSAB01									
	Boron	19.5	ug/L	20	ug/L	97.6	80.0 – 120.0	24-MAR-22 14:16	220324-2
	Calcium	97000	ug/L	100000	ug/L	97	80.0 – 120.0	24-MAR-22 14:16	220324-2
	Thallium	18.5	ug/L	20	ug/L	92.6	80.0 – 120.0	24-MAR-22 14:16	220324-2
ICSA02									
	Boron	1.89	ug/L					24-MAR-22 14:45	220324-2
	Calcium	94800	ug/L	100000	ug/L	94.8	80.0 – 120.0	24-MAR-22 14:45	220324-2
	Thallium	0.186	ug/L					24-MAR-22 14:45	220324-2
ICSAB02									
	Boron	20.3	ug/L	20	ug/L	101	80.0 – 120.0	24-MAR-22 14:47	220324-2
	Calcium	96600	ug/L	100000	ug/L	96.6	80.0 – 120.0	24-MAR-22 14:47	220324-2
	Thallium	18.2	ug/L	20	ug/L	91.1	80.0 – 120.0	24-MAR-22 14:47	220324-2
ICSA03									
	Boron	2.0	ug/L					24-MAR-22 15:56	220324-2
	Calcium	96100	ug/L	100000	ug/L	96.1	80.0 – 120.0	24-MAR-22 15:56	220324-2
	Thallium	0.039	ug/L					24-MAR-22 15:56	220324-2
ICSAB03									
	Boron	20.6	ug/L	20	ug/L	103	80.0 – 120.0	24-MAR-22 15:59	220324-2
	Calcium	95500	ug/L	100000	ug/L	95.5	80.0 – 120.0	24-MAR-22 15:59	220324-2
	Thallium	18.0	ug/L	20	ug/L	89.8	80.0 – 120.0	24-MAR-22 15:59	220324-2

METALS
-4-
Interference Check Sample

SDG No: 573561

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Molybdenum	1960	ug/L	2000	ug/L	97.8	80.0 – 120.0	25-MAR-22 10:18	220325-3
ICSAB01	Molybdenum	1960	ug/L	2000	ug/L	98.2	80.0 – 120.0	25-MAR-22 10:22	220325-3
ICSA02	Molybdenum	1890	ug/L	2000	ug/L	94.3	80.0 – 120.0	25-MAR-22 11:27	220325-3
ICSAB02	Molybdenum	1900	ug/L	2000	ug/L	95.1	80.0 – 120.0	25-MAR-22 11:31	220325-3

METALS

-5a-

Matrix Spike Summary

SDG NO. 573561

Client ID: MW-AP-01A-2022Q1S

Contract: DMNN00101

Level: Low

Matrix: GROUND WATER

% Solids:

Sample ID: 573561001

Spike ID: 1205044455

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Antimony	ug/L	75-125	51.1		0.600	U	50.0	102		MS
Arsenic	ug/L	75-125	51.2		1.66	U	50.0	102		MS
Barium	ug/L	75-125	113		59.4		50.0	107		MS
Beryllium	ug/L	75-125	51.8		0.245	B	50.0	103		MS
Boron	ug/L	75-125	113		10.9	B	100	102		MS
Cadmium	ug/L	75-125	51.3		0.0300	U	50.0	103		MS
Calcium	ug/L	75-125	2740		593		2000	107		MS
Chromium	ug/L	75-125	50.4		1.00	U	50.0	100		MS
Cobalt	ug/L	75-125	49.9		0.523	B	50.0	98.7		MS
Lead	ug/L	75-125	52.3		1.13	B	50.0	102		MS
Lithium	ug/L	75-125	51.5		2.00	U	50.0	100		MS
Molybdenum	ug/L	75-125	52.7		0.167	U	50.0	105		MS
Selenium	ug/L	75-125	50.5		1.50	U	50.0	101		MS
Thallium	ug/L	75-125	50.8		0.165	B	50.0	101		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

-5a-

Matrix Spike Summary

SDG NO. 573561 Client ID: B44KT4S

Contract: DMNN00101 Level: Low

Matrix: WATER % Solids:

Sample ID: 573129001 Spike ID: 1205048942

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	75-125	2.01		0.0670	U	2.00	101		AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

-5a-

Matrix Spike Summary

SDG NO. 573561 Client ID: MW-AP-01A-2022Q1S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 573561001 Spike ID: 1205048945

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	75-125	1.81		0.0670	U	2.00	90.6		AV

*Analytical Methods:

AV EPA 245.1/245.2

Metals
-6-
Duplicate Sample Summary

SDG No.: 573561

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-01A-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573561001

Duplicate ID: 1205044454

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	ug/L		0.600 U		0.600 U				MS
Arsenic	ug/L		1.66 U		1.66 U				MS
Barium	ug/L	+/-20%	59.4		59.1		.471		MS
Beryllium	ug/L		0.245 B		0.200 U		200		MS
Boron	ug/L	+/-30	10.9 B		11.0 B		.751		MS
Cadmium	ug/L		0.0300 U		0.0300 U				MS
Calcium	ug/L	+/-20%	593		553		7.01		MS
Chromium	ug/L		1.00 U		1.00 U				MS
Cobalt	ug/L	+/-2	0.523 B		0.494 B		5.7		MS
Lead	ug/L	+/-4	1.13 B		1.08 B		4.34		MS
Lithium	ug/L		2.00 U		2.00 U				MS
Molybdenum	ug/L		0.167 U		0.167 U				MS
Selenium	ug/L		1.50 U		1.50 U				MS
Thallium	ug/L		0.165 B		0.125 U		200		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
-6-
Duplicate Sample Summary

SDG No.: 573561

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-01A-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573561001

Duplicate ID: 1205048944

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/L		0.0670	U	0.0670	U			AV

*Analytical Methods:
 AV EPA 245.1/245.2

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 573561

Contract: DMNN00101

Aqueous LCS Source: Enviromental Express

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205044453								
	Antimony	ug/L	50.0	50.3		101	85-115	MS
	Arsenic	ug/L	50.0	50.0		100	85-115	MS
	Barium	ug/L	50.0	50.5		101	85-115	MS
	Beryllium	ug/L	50.0	49.7		99.5	85-115	MS
	Boron	ug/L	100	100		100	85-115	MS
	Cadmium	ug/L	50.0	50.0		100	85-115	MS
	Calcium	ug/L	2000	2100		105	85-115	MS
	Chromium	ug/L	50.0	49.5		98.9	85-115	MS
	Cobalt	ug/L	50.0	48.9		97.8	85-115	MS
	Lead	ug/L	50.0	50.2		100	85-115	MS
	Lithium	ug/L	50.0	48.1		96.2	80-120	MS
	Molybdenum	ug/L	50.0	49.8		99.6	85-115	MS
	Selenium	ug/L	50.0	50.4		101	85-115	MS
	Thallium	ug/L	50.0	49.4		98.9	85-115	MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 573561

Contract: DMNN00101

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205048940	Mercury	ug/L	2.00	2.03		101	85-115	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 573561 Client ID: MW-AP-01A-2022Q1L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573561001 Serial Dilution ID: 1205044456

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Antimony	.6	U	3	U				MS
Arsenic	1.66	U	8.3	U				MS
Barium	59.4		57.8		2.738			MS
Beryllium	.245	B	1	U	10.204			MS
Boron	10.9	B	20	U	6.676			MS
Cadmium	.03	U	.15	U				MS
Calcium	593		590		.442			MS
Chromium	1	U	5	U				MS
Cobalt	.523	B	.58	B	10.899			MS
Lead	1.13	B	2.5	U	13.717			MS
Lithium	2	U	10	U				MS
Molybdenum	.167	U	.835	U				MS
Selenium	1.5	U	7.5	U				MS
Thallium	.165	B	.88	B	433.333			MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 573561 Client ID: B44KT4L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573129001 Serial Dilution ID: 1205048943

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.067	U	.335	U				AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 573561 Client ID: MW-AP-01A-2022Q1L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573561001 Serial Dilution ID: 1205048946

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.067	U	.335	U				AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 573561

Method Type: MS

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2242904							
1205044452	MB for batch 2242904	MB	G	18-MAR-22	50mL	50mL	
1205044453	LCS for batch 2242904	LCS	G	18-MAR-22	50mL	50mL	
1205044455	MW-AP-01A-2022Q1S	MS	G	18-MAR-22	50mL	50mL	
1205044454	MW-AP-01A-2022Q1D	DUP	G	18-MAR-22	50mL	50mL	
573561001	MW-AP-01A-2022Q1	SAMPLE	G	18-MAR-22	50mL	50mL	
573561002	DU-WAT-CCR-AP-22103	SAMPLE	G	18-MAR-22	50mL	50mL	
573561003	MW-AP-08-2022Q1	SAMPLE	G	18-MAR-22	50mL	50mL	
573561004	MW-AP-11-2022Q1	SAMPLE	G	18-MAR-22	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 573561

Method Type: AV

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2245049							
1205048939	MB for batch 2245049	MB	W	24-MAR-22	20mL	20mL	
1205048940	LCS for batch 2245049	LCS	W	24-MAR-22	20mL	20mL	
1205048942	B44KT4S	MS	W	24-MAR-22	20mL	20mL	
1205048945	MW-AP-01A-2022Q1S	MS	G	24-MAR-22	20mL	20mL	
1205048941	B44KT4D	DUP	W	24-MAR-22	20mL	20mL	
1205048944	MW-AP-01A-2022Q1D	DUP	G	24-MAR-22	20mL	20mL	
573561001	MW-AP-01A-2022Q1	SAMPLE	G	24-MAR-22	20mL	20mL	
573561002	DU-WAT-CCR-AP-22103	SAMPLE	G	24-MAR-22	20mL	20mL	
573561003	MW-AP-08-2022Q1	SAMPLE	G	24-MAR-22	20mL	20mL	
573561004	MW-AP-11-2022Q1	SAMPLE	G	24-MAR-22	20mL	20mL	

General Chem Analysis

Case Narrative

**General Chemistry
Technical Case Narrative
Dominion Energy
SDG #: 573561**

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2242886

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573561001	MW-AP-01A-2022Q1
573561002	DU-WAT-CCR-AP-22103
573561003	MW-AP-08-2022Q1
573561004	MW-AP-11-2022Q1
1205044433	Method Blank (MB)
1205044434	Laboratory Control Sample (LCS)
1205044435	573561001(MW-AP-01A-2022Q1) Sample Duplicate (DUP)
1205044436	573561001(MW-AP-01A-2022Q1) Post Spike (PS)
1205044437	573581005(MW-FGD-05-2022Q1) Sample Duplicate (DUP)
1205044438	573581005(MW-FGD-05-2022Q1) Post Spike (PS)

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

Data Summary:

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

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205044436 (MW-AP-01A-2022Q1PS)	113* (90%-110%)
	1205044438 (MW-FGD-05-2022Q1PS)	119* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205044437 (MW-FGD-05-2022Q1DUP), 1205044438 (MW-FGD-05-2022Q1PS), 573561002 (DU-WAT-CCR-AP-22103), 573561003 (MW-AP-08-2022Q1) and 573561004 (MW-AP-11-2022Q1) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many

reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	573561		
	002	003	004
Chloride	10X	10X	50X
Sulfate	10X	10X	50X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Product: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 19
Analytical Batch: 2244611

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573561001	MW-AP-01A-2022Q1
573561002	DU-WAT-CCR-AP-22103
573561003	MW-AP-08-2022Q1
573561004	MW-AP-11-2022Q1
1205048012	Method Blank (MB)
1205048013	Laboratory Control Sample (LCS)
1205048014	573561001(MW-AP-01A-2022Q1) Sample Duplicate (DUP)
1205048015	573606001(NonSDG) Sample Duplicate (DUP)
1205048016	573613006(NonSDG) Sample Duplicate (DUP)
1205048017	573640003(NonSDG) Sample Duplicate (DUP)

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

Data Summary:

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

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573561 GEL Work Order: 573561

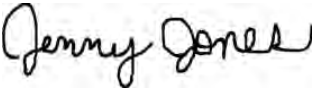
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Jennifer Jones

Date: 28 MAR 2022

Title: Analyst II

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	MW-AP-01A-2022Q1	Project:	DMNN00101
Sample ID:	573561001	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	16-MAR-22 13:40		
Receive Date:	17-MAR-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.91	0.0670	0.200	mg/L		1	JLD1	03/17/22	1954	2242886	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	J	0.205	0.133	0.400	mg/L		1					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		27.1	3.40	14.3	mg/L			KLP1	03/23/22	1453	2244611	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	DU-WAT-CCR-AP-22103	Project:	DMNN00101
Sample ID:	573561002	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	16-MAR-22 12:00		
Receive Date:	17-MAR-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.798	0.0330	0.100	mg/L		1	JLD1	03/17/22	2127	2242886	1
Chloride		17.8	0.670	2.00	mg/L		10	JLD1	03/18/22	1119	2242886	2
Sulfate		108	1.33	4.00	mg/L		10					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		390	3.40	14.3	mg/L			KLP1	03/23/22	1453	2244611	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: March 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-08-2022Q1

Project: DMNN00101

Sample ID: 573561003

Client ID: DMNN001

Matrix: GW

Collect Date: 16-MAR-22 11:20

Receive Date: 17-MAR-22

Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.729	0.0330	0.100	mg/L		1	JLD1	03/17/22	2157	2242886	1
Chloride		18.6	0.670	2.00	mg/L		10	JLD1	03/18/22	1150	2242886	2
Sulfate		90.8	1.33	4.00	mg/L		10					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		399	3.40	14.3	mg/L			KLP1	03/23/22	1453	2244611	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

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

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Certificate of Analysis

Report Date: March 28, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-11-2022Q1	Project: DMNN00101
Sample ID: 573561004	Client ID: DMNN001
Matrix: GW	
Collect Date: 16-MAR-22 16:30	
Receive Date: 17-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.469	0.0330	0.100	mg/L		1	JLD1	03/17/22	2228	2242886	1
Chloride		145	3.35	10.0	mg/L		50	JLD1	03/18/22	1221	2242886	2
Sulfate		56.2	6.65	20.0	mg/L		50					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		460	3.40	14.3	mg/L			KLP1	03/23/22	1453	2244611	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 28, 2022

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Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia

Contact: Kelly Hicks

Workorder: 573561

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2242886										
QC1205044435	573561001	DUP									
Chloride		5.91		5.90	mg/L	0.198		(0%-20%)	JLD1	03/17/22	20:25
Fluoride	U	ND	U	ND	mg/L	N/A					
Sulfate	J	0.205	J	0.194	mg/L	5.57 ^		(+/-8)			
QC1205044437	573581005	DUP									
Chloride		14.2		14.2	mg/L	0.0803		(0%-20%)		03/18/22	16:27
Fluoride	J	0.0731	J	0.0737	mg/L	0.817 ^		(+/-2)		03/18/22	05:09
Sulfate		21.7		21.5	mg/L	0.935		(0%-20%)		03/18/22	16:27
QC1205044434	LCS										
Chloride	5.00			4.89	mg/L		97.9	(90%-110%)		03/17/22	18:52
Fluoride	2.50			2.35	mg/L		94	(90%-110%)			
Sulfate	10.0			9.89	mg/L		98.9	(90%-110%)			
QC1205044433	MB										
Chloride			U	ND	mg/L					03/17/22	18:22
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205044436	573561001	PS									
Chloride	5.00	5.91		11.6	mg/L		113 *	(90%-110%)		03/18/22	22:48

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QC Summary

Workorder: 573561

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2242886										
Fluoride	2.50	U	ND	2.53	mg/L		101	(90%-110%)	JLD1	03/18/22	22:48
Sulfate	10.0	J	0.205	10.2	mg/L		99.5	(90%-110%)			
QC1205044438	573581005 PS										
Chloride	5.00		7.11	13.1	mg/L		119*	(90%-110%)		03/18/22	16:58
Fluoride	2.50	J	0.0731	2.54	mg/L		98.8	(90%-110%)		03/18/22	05:40
Sulfate	10.0		10.8	21.7	mg/L		108	(90%-110%)		03/18/22	16:58
Solids Analysis											
Batch	2244611										
QC1205048014	573561001 DUP										
Total Dissolved Solids			27.1	24.3	mg/L	11.1 ^		(+/-28.6)	KLP1	03/23/22	14:53
QC1205048015	573606001 DUP										
Total Dissolved Solids			256	257	mg/L	0.557		(0%-5%)		03/23/22	14:53
QC1205048016	573613006 DUP										
Total Dissolved Solids			98.6	100	mg/L	1.44		(0%-5%)		03/23/22	14:53
QC1205048017	573640003 DUP										
Total Dissolved Solids			831	824	mg/L	0.863		(0%-5%)		03/23/22	14:53
QC1205048013	LCS										
Total Dissolved Solids	300			296	mg/L		98.6	(95%-105%)		03/23/22	14:53
QC1205048012	MB										
Total Dissolved Solids			U	ND	mg/L					03/23/22	14:53

Notes:

The Qualifiers in this report are defined as follows:

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QC Summary

Workorder: 573561

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<	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	See case narrative for an explanation										
J	Value is estimated										
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.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
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.

Radiological Analysis

Case Narrative

**Radiochemistry
Technical Case Narrative
Dominion Energy
SDG #: 573561**

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2243558

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573561001	MW-AP-01A-2022Q1
573561002	DU-WAT-CCR-AP-22103
573561003	MW-AP-08-2022Q1
573561004	MW-AP-11-2022Q1
1205045912	Method Blank (MB)
1205045913	573561001(MW-AP-01A-2022Q1) Sample Duplicate (DUP)
1205045914	573749009(MW-AP-11D-2022Q1) Sample Duplicate (DUP)
1205045915	Laboratory Control Sample (LCS)

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

Data Summary:

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

Technical Information

Recounts

Samples 1205045912 (MB), 1205045913 (MW-AP-01A-2022Q1DUP), 1205045914 (MW-AP-11D-2022Q1DUP) and 573561001 (MW-AP-01A-2022Q1) were recounted to verify sample results. Recounts are reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2243561

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573561001	MW-AP-01A-2022Q1
573561002	DU-WAT-CCR-AP-22103
573561003	MW-AP-08-2022Q1
573561004	MW-AP-11-2022Q1

1205045974	Method Blank (MB)
1205045975	573561001(MW-AP-01A-2022Q1) Sample Duplicate (DUP)
1205045977	573561001(MW-AP-01A-2022Q1) Matrix Spike (MS)
1205045978	Laboratory Control Sample (LCS)

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

Data Summary:

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

Miscellaneous Information

Additional Comments

The matrix spike, 1205045977 (MW-AP-01A-2022Q1MS), aliquot was reduced to conserve sample volume.

Certification Statement

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

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Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573561 GEL Work Order: 573561

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

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Theresa Austin

Date: 29 MAR 2022

Title: Group Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: March 29, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-01A-2022Q1
Sample ID: 573561001
Matrix: GW
Collect Date: 16-MAR-22
Receive Date: 17-MAR-22
Collector: Client

Project: DMNN00101
Client ID: DMNN001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.01	+/-1.41	1.91	+/-1.60	3.00	pCi/L			JXC9	03/28/22	1013	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.47	+/-1.52		+/-1.71		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.47	+/-0.555	0.607	+/-0.599	1.00	pCi/L			LXP1	03/29/22	0747	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	65.9	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: March 29, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: DU-WAT-CCR-AP-22103

Project: DMNN00101

Sample ID: 573561002

Client ID: DMNN001

Matrix: GW

Collect Date: 16-MAR-22

Receive Date: 17-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.93	+/-1.26	1.96	+/-1.35	3.00	pCi/L			JXC9	03/28/22	0857	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.91	+/-1.44		+/-1.58		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.98	+/-0.697	0.556	+/-0.835	1.00	pCi/L			LXP1	03/29/22	0747	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	86.8	(30%-110%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: March 29, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-08-2022Q1

Project: DMNN00101

Sample ID: 573561003

Client ID: DMNN001

Matrix: GW

Collect Date: 16-MAR-22

Receive Date: 17-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.250	+/-0.668	1.22	+/-0.671	3.00	pCi/L			JXC9	03/28/22	0857	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.94	+/-1.10		+/-1.49		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		4.69	+/-0.872	0.580	+/-1.33	1.00	pCi/L			LXP1	03/29/22	0747	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	88.1	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: March 29, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-11-2022Q1

Project: DMNN00101

Sample ID: 573561004

Client ID: DMNN001

Matrix: GW

Collect Date: 16-MAR-22

Receive Date: 17-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.64	+/-1.57	2.27	+/-1.82	3.00	pCi/L			JXC9	03/28/22	0857	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.44	+/-1.73		+/-2.06		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.80	+/-0.718	0.484	+/-0.958	1.00	pCi/L			LXP1	03/29/22	0747	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	74.6	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 29, 2022
Page 1 of 2

Client : Dominion Energy Services, Inc.
120 Tredegar Street

Richmond, Virginia 23219
Contact: Kelly Hicks
Workorder: 573561

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date Time
Rad Gas Flow									
Batch	2243558								
QC1205045912	MB								
Radium-228			U	1.68	pCi/L			JXC9	03/28/2210:12
				Uncert: +/-1.60					
				TPU: +/-1.66					
QC1205045913	573561001	DUP							
Radium-228		3.01		4.20	pCi/L				03/28/2210:12
				Uncert: +/-1.41		RPD: 33 (0% - 100%)			
				TPU: +/-1.60		RER: 0.919 (0-2)			
QC1205045914	573749009	DUP							
Radium-228		4.52		3.06	pCi/L				03/29/2210:41
				Uncert: +/-1.52		RPD: 39 (0% - 100%)			
				TPU: +/-1.89		RER: 1.18 (0-2)			
QC1205045915	LCS								
Radium-228		46.3		45.1	pCi/L	REC: 97.3 (80%-120%)			03/28/2208:57
				Uncert: +/-3.97					
				TPU: +/-12.0					
Rad Ra-226									
Batch	2243561								
QC1205045974	MB								
Radium-226			U	0.140	pCi/L			LXP1	03/29/2208:51
				Uncert: +/-0.274					
				TPU: +/-0.275					
QC1205045975	573561001	DUP							
Radium-226		1.47		1.36	pCi/L				03/29/2209:23
				Uncert: +/-0.555		RPD: 8 (0% - 100%)			
				TPU: +/-0.599		RER: 0.258 (0-2)			
QC1205045977	573561001	MS							
Radium-226		127	1.47	116	pCi/L	REC: 90.1 (75%-125%)			
				Uncert: +/-0.555					
				TPU: +/-0.599					
QC1205045978	LCS								
Radium-226		26.4		26.5	pCi/L	REC: 100 (80%-120%)			
				Uncert: +/-1.83					
				TPU: +/-6.66					

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low

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QC Summary

Workorder: 573561

Page 2 of 2

Parname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date	Time
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						See case narrative for an explanation				
J						Value is estimated				
K						Analyte present. Reported value may be biased high. Actual value is expected to be lower.				
L						Analyte present. Reported value may be biased low. Actual value is expected to be higher.				
M						M if above MDC and less than LLD				
M						REMP Result > MDC/CL and < RDL				
N						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				
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.

** Indicates analyte is a surrogate compound.

^ 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.

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.



March 31, 2022

Kelly Hicks
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219

Re: CCR Groundwater Monitoring - Level 1 Package
Work Order: 573749

Dear Kelly Hicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 18, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1648.

Sincerely,

Meredith Boddiford
Project Manager

Purchase Order: 50149867
Chain of Custody: 2021140
Enclosures



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Case Narrative

**Receipt Narrative
for
Dominion Energy (50149867)
SDG: 573749**

March 31, 2022

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 18, 2022 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

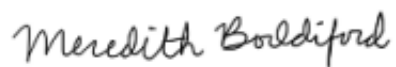
Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
573749001	MW-AP-03-2022Q1
573749002	MW-AP-03D-2022Q1
573749003	MW-AP-03D2-2022Q1
573749004	MW-AP-04-2022Q1
573749005	FBLK-WAT-CCR-AP-22104
573749006	MW-AP-05-2022Q1
573749007	MW-AP-09-2022Q1
573749008	MW-AP-09D-2022Q1
573749009	MW-AP-11D-2022Q1
573749010	MW-AP-11D2-2022Q1
573749011	MW-AP-12-2022Q1
573749012	FBLK-WAT-CCR-AP-22105
573749013	MW-AP-13-2022Q1

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

A handwritten signature in black ink that reads "Meredith Boddiford". The script is cursive and fluid.

Meredith Boddiford
Project Manager

Chain of Custody and Supporting Documentation

Project # 416539 (0605 0002) 5.2
 GEL Order # 573749
 COC Number 01 2021140
 PO Number PO 50149667
 Client Name Dominion Energy

Laboratories LLC
 Chemistry / Radiochemistry / Radiotoxicity / Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Project Manager: Taylor Cannon

GEL Laboratories, LLC
 2940 Savage Road
 Charleston, SC 29407
 Phone: (843) 536-8171
 Fax: (843) 766-1178

Sample ID: MW-AP-03-2022Q1
 Project/Site Name: Waterloo Station Ash Pond CUR 2022Q1
 Address: Waterloo, South Carolina
 Collected By: B. Medlin / J. Bradley
 Sent Results To: AReed@wvsd.com
 Phone # 803-258-1528
 Fax #

For composite - indicate start and stop date/time

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military (hhmm))	QC Code (3)	Field Filtered (4)	Sample Matrix (4)	Should this sample be considered: (7) Known or possible hazards	Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
MW-AP-03-2022Q1	3/17/2022	0955	N	N	GW	N	4	CL, FI, SO4 - EPA (see list in comments) TDS Ra-226/228 903/1904.0		Note: extra sample is required for sample specific QC.
MW-AP-03D-2022Q1	3/17/2022	1115	N	N	GW	N	4			
MW-AP-03D2-2022Q1	3/17/2022	1245	N	N	GW	N	4			
MW-AP-04-2022Q1	3/17/2022	1440	N	N	GW	N	4			See attached work order for details
FBLK-WAT-CCR-AP-22104	3/16/2022	1125	FB	N	AQ	N	4			
MW-AP-05-2022Q1	3/17/2022	1325	N	N	GW	N	4			

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (Signed)	Date	Time
Jared Bradley	3/18/2022	Jared Bradley	3/18/22	1139

Additional Remarks:
 For Lab Receiving Use Only: Canopy Seal Intact? Yes No Cooler Temp: °C
 Sample Collection Time Zone: Eastern Pacific Mountain Other

QC Codes: N - Normal Sample, EB - Trip Blank, FD - Field Duplicate, MS - Matrix Spike Sample, MSD - Matrix Spike Duplicate Sample, G - Grab, C - Composite
 Field Filtered: For liquid matrices, indicate with a 'Y' - for gas the sample was field filtered.
 Matrix Codes: DW - Drinking Water, GW - Groundwater, SW - Surface Water, WW - Wastewater, BW - Borehole Water, ML - Misc. Liquid, SD - Soil, SD - Sediment, SL - Sludge, SS - Solid Waste, O-DR, F-Filter, P - Wipe, U - Urine, F - fecal, N - Nasal
 Sample Analysis Request: Analytical method requested (i.e. 8260B, 60101/7170A) and number of containers provided for each (i.e. 8260B - 3, 60101/7170A - 1)
 Preservative Type: HA - Hydrochloric Acid, NI - Nitric Acid, SH - Sulfuric Acid, AA - Acetic Acid, BX - Boric Acid, ST - Sodium Thiosulfate, if no preservative is added - leave field blank
KNOWN OR POSSIBLE HAZARDS:
 Characteristic Hazards: [Listed Waste] [Other] FL = Flammable/ignitable, LW = Listed Waste, CO = Corrosive, RE = Reactive, (F, K, P and U-listed wastes), Waste code(s):
 RCRA Metals: [TSCA Regulated] [PCB = Polychlorinated biphenyls]
 AS = Arsenic, Hg = Mercury, Ba = Barium, Sr = Strontium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals, Pb = Lead

Please provide any additional details below regarding handling and/or disposal concerns (i.e., Origin of sample(s), type of site collected from, odd matrices, etc.)

Page: 2 of 2
 Project # 416539 (6085, 0820) 5.2
 GEL Quote # 2021140 (REV)
 COC Number 01
 PO Number PO 50149867
 Client Name Dominion Energy
 Project/Site Name Water Station Ash Pond CCR 2022Q1
 Address Waterex, South Carolina
 Collected By B. Medina / J. Bradley
 Sample ID 3/17/2022 1050
 Date Collected (mm-dd-yy) 3/17/2022
 Time Collected (Military) (hh:mm) 0930
 QC Code to Mark (a) N
 Field Filtered (b) N
 Sample Matrix (c) GW
 * For comments - indicate start and stop date/time

GEL Laboratories, LLC
 2940 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178
 Chain of Custody and Analytical Request
 GEL Project Manager: Taylor Cannon
 Phone # 803-258-1528
 Fax #
 Send Results To: AReed@envsdc.com

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military) (hh:mm)	QC Code to Mark (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be consubstrated?	Field number of containers	Preservative Type (6)	Comments
MW-AP-09-2022Q1	3/17/2022	1050	N	N	GW	N	4	NI	Note: extra sample is required for sample specific QC
MW-AP-09D-2022Q1	3/17/2022	0930	N	N	GW	N	4	NI	
MW-AP-1D-2022Q1	3/17/2022	1315	N	N	GW	N	4	NI	
MW-AP-1D2-2022Q1	3/17/2022	1045	N	N	GW	N	4	NI	
MW-AP-12-2022Q1	3/17/2022	1630	N	N	GW	N	4	NI	
FBIK-WAF-CCR-AP-22105	3/17/2022	0944	EB	N	AQ	N	4	NI	
MW-AP-13-2022Q1	3/17/2022	1205	N	N	GW	N	4	NI	

Chain of Custody Signatures
 Requisitioned By (Signed) Jared Bradley Date 3/15/2022 Time 1139
 Received by (signed) JTB Date 3/18/22 Time 1139
 Chain of Custody Number - Client Determined

TAT Requested: Normal: Rush: Specify: _____
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks:
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e. Origin of sample(s), type of site collected from, acid matrices, etc.)

RCRA Metals
 AS = Arsenic
 Ba = Barium
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead
 Hg = Mercury
 See Selenium
 Ag = Silver
 MI = Misc. RCRA metals
 PCB = Polychlorinated biphenyls
 Characteristic Hazards
 FL = Flammable/ignitable
 CO = Corrosive
 RE = Reactive
 TSCA Regulated
 PCB = Polychlorinated biphenyls
 Listed Waste
 LW = Listed Waste (F, K, P and U listed wastes)
 Paste code(s):
 Other
 OT = Other / Unknown
 (i.e. Highflow pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description:

SAMPLE RECEIPT & REVIEW FORM

Client: <u>DMNH</u>		SDG/AR/COC/Work Order: <u>573746</u> <u>573749</u> <u>573148</u>			
Received By: <u>DC</u>		Date Received: <u>5-18-22</u>			
Carrier and Tracking Number		FedEx Express FedEx Ground UPS <u>Field Services</u> Courier Other <u>Cooler #1 = 2°</u> <u>Cooler #3 = 10°</u> <u>Cooler #2 = 4°</u> <u>Cooler #4 = 6°</u>			
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.			
A) Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___			
B) Did the client designate the samples are to be received as radioactive?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	COC notation or radioactive stickers on containers equal client designation.			
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>7</u> CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3			
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	COC notation or hazard labels on containers equal client designation.			
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:			
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: _____
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temperature Device Serial #: <u>IR2-22</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials AM Date 3/24/22 Page 1 of 1

Laboratory Certifications

List of current GEL Certifications as of 31 March 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Dominion Energy
SDG #: 573749

Product: Determination of Metals by ICP-MS

Analytical Method: EPA 200.8 SC_NPDES

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2243382

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: EPA 245.1/245.2

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2247198

Preparation Method: EPA 200.2

Preparation Procedure: GL-MA-E-016 REV# 18

Preparation Batch: 2243381

Preparation Method: EPA 245.1/245.2 Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2247196

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573749001	MW-AP-03-2022Q1
573749002	MW-AP-03D-2022Q1
573749003	MW-AP-03D2-2022Q1
573749004	MW-AP-04-2022Q1
573749005	FBLK-WAT-CCR-AP-22104
573749006	MW-AP-05-2022Q1
573749007	MW-AP-09-2022Q1
573749008	MW-AP-09D-2022Q1
573749009	MW-AP-11D-2022Q1
573749010	MW-AP-11D2-2022Q1
573749011	MW-AP-12-2022Q1
573749012	FBLK-WAT-CCR-AP-22105
573749013	MW-AP-13-2022Q1
1205045467	Method Blank (MB)ICP-MS
1205045468	Laboratory Control Sample (LCS)
1205045471	573749001(MW-AP-03-2022Q1L) Serial Dilution (SD)
1205045474	573749013(MW-AP-13-2022Q1L) Serial Dilution (SD)
1205045469	573749001(MW-AP-03-2022Q1D) Sample Duplicate (DUP)
1205045472	573749013(MW-AP-13-2022Q1D) Sample Duplicate (DUP)
1205045470	573749001(MW-AP-03-2022Q1S) Matrix Spike (MS)
1205045473	573749013(MW-AP-13-2022Q1S) Matrix Spike (MS)
1205053311	Method Blank (MB)CVAA
1205053312	Laboratory Control Sample (LCS)
1205053321	573749001(MW-AP-03-2022Q1L) Serial Dilution (SD)

1205053319 573749001(MW-AP-03-2022Q1D) Sample Duplicate (DUP)
 1205053320 573749001(MW-AP-03-2022Q1S) Matrix Spike (MS)
 1205053322 573749001(MW-AP-03-2022Q1PS) Post Spike (PS)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205053320 (MW-AP-03-2022Q1MS)	Mercury	56.7* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205053322 (MW-AP-03-2022Q1PS)	Mercury	57.4* (80%-120%)

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 573749001 (MW-AP-03-2022Q1), 573749002 (MW-AP-03D-2022Q1), 573749003 (MW-AP-03D2-2022Q1), 573749004 (MW-AP-04-2022Q1), 573749006 (MW-AP-05-2022Q1), 573749007 (MW-AP-09-2022Q1), 573749008 (MW-AP-09D-2022Q1), 573749009 (MW-AP-11D-2022Q1), 573749010 (MW-AP-11D2-2022Q1), 573749011 (MW-AP-12-2022Q1) and 573749013 (MW-AP-13-2022Q1)-ICP-MS were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	573749									
	001	002	003	004	006	007	008	009	010	011
Arsenic	20X	10X	1X	1X	1X	10X	1X	1X	1X	1X
Boron	20X	10X	10X	20X	10X	10X	10X	10X	10X	10X
Calcium	20X	10X	1X	20X	1X	1X	10X	1X	1X	10X

Analyte	573749
	013
Boron	10X
Calcium	10X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573749 GEL Work Order: 573749

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Edmund Frampton

Date: 01 APR 2022

Title: Group Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749001

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-03-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7440-38-2	Arsenic	1170	ug/L		33.2	100	100	20	MS	PRB	03/30/22 19:16	220330-3	2243382
7440-39-3	Barium	206	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7440-42-8	Boron	1620	ug/L		80.0	300	300	20	MS	PRB	03/30/22 19:16	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7440-70-2	Calcium	77100	ug/L		600	2000	2000	20	MS	PRB	03/30/22 19:16	220330-3	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7440-48-4	Cobalt	0.265	ug/L	J	0.100	1.00	1.00	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7439-93-2	Lithium	67.8	ug/L		2.00	10.0	10.0	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:04	033122W1-4	2247198
7439-98-7	Molybdenum	21.0	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:12	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 00:40	220329-2	2243382
7440-28-0	Thallium	0.211	ug/L	J	0.125	0.500	0.500	1	MS	PRB	03/30/22 00:40	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749002

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-03D-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7440-38-2	Arsenic	1090	ug/L		16.6	50.0	50.0	10	MS	PRB	03/30/22 19:29	220330-3	2243382
7440-39-3	Barium	106	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7440-42-8	Boron	902	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:29	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7440-70-2	Calcium	62400	ug/L		300	1000	1000	10	MS	PRB	03/30/22 19:29	220330-3	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7440-48-4	Cobalt	5.10	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7439-93-2	Lithium	8.89	ug/L	J	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:13	033122W1-4	2247198
7439-98-7	Molybdenum	45.3	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:21	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:08	220329-2	2243382
7440-28-0	Thallium	0.188	ug/L	J	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:08	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749003

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-03D2-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-39-3	Barium	34.8	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-41-7	Beryllium	1.92	ug/L		0.200	0.500	0.500	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-42-8	Boron	735	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:31	220330-3	2243382
7440-43-9	Cadmium	0.117	ug/L		0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-70-2	Calcium	10500	ug/L		30.0	100	100	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-48-4	Cobalt	10.1	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7439-92-1	Lead	0.532	ug/L	J	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7439-93-2	Lithium	8.71	ug/L	J	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:15	033122W1-4	2247198
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:23	220331-1	2243382
7782-49-2	Selenium	3.98	ug/L	J	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:12	220329-2	2243382
7440-28-0	Thallium	0.737	ug/L		0.125	0.500	0.500	1	MS	PRB	03/30/22 01:12	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 573749004

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-04-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-38-2	Arsenic	10.3	ug/L		1.66	5.00	5.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-39-3	Barium	148	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-42-8	Boron	2140	ug/L		80.0	300	300	20	MS	PRB	03/30/22 19:33	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-70-2	Calcium	138000	ug/L		600	2000	2000	20	MS	PRB	03/30/22 19:33	220330-3	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:20	033122W1-4	2247198
7439-98-7	Molybdenum	2.12	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:28	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:16	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:16	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749005

BASIS: As Received

DATE COLLECTED 16-MAR-22

CLIENT ID: FBLK-WAT-CCR-AP-221C

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: AQ

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-39-3	Barium	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-42-8	Boron	5.91	ug/L	J	4.00	15.0	15.0	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-70-2	Calcium	30.0	ug/L	U	30.0	100	100	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:22	033122W1-4	2247198
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:30	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:20	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:20	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749006

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-05-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-39-3	Barium	159	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-42-8	Boron	431	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:35	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-70-2	Calcium	25300	ug/L		30.0	100	100	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-48-4	Cobalt	4.01	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:23	033122W1-4	2247198
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:31	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:24	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:24	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 573749007

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-09-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-38-2	Arsenic	1250	ug/L		16.6	50.0	50.0	10	MS	PRB	03/30/22 19:37	220330-3	2243382
7440-39-3	Barium	92.0	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-42-8	Boron	598	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:37	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-70-2	Calcium	37500	ug/L		30.0	100	100	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7439-93-2	Lithium	12.5	ug/L		2.00	10.0	10.0	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:25	033122W1-4	2247198
7439-98-7	Molybdenum	17.2	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:33	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:28	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:28	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749008

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-09D-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-38-2	Arsenic	45.9	ug/L		1.66	5.00	5.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-39-3	Barium	34.6	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-41-7	Beryllium	0.478	ug/L	J	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-42-8	Boron	972	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:39	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-70-2	Calcium	87300	ug/L		300	1000	1000	10	MS	PRB	03/30/22 19:39	220330-3	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-48-4	Cobalt	34.7	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7439-92-1	Lead	1.49	ug/L	J	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7439-93-2	Lithium	9.90	ug/L	J	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:27	033122W1-4	2247198
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:35	220331-1	2243382
7782-49-2	Selenium	6.82	ug/L		1.50	5.00	5.00	1	MS	PRB	03/30/22 01:32	220329-2	2243382
7440-28-0	Thallium	0.736	ug/L		0.125	0.500	0.500	1	MS	PRB	03/30/22 01:32	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 573749009

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-11D-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-38-2	Arsenic	371	ug/L		1.66	5.00	5.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-39-3	Barium	57.4	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-42-8	Boron	661	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:41	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-70-2	Calcium	37000	ug/L		30.0	100	100	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-48-4	Cobalt	7.20	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7439-93-2	Lithium	8.59	ug/L	J	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:29	033122W1-4	2247198
7439-98-7	Molybdenum	2.13	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:37	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:36	220329-2	2243382
7440-28-0	Thallium	0.229	ug/L	J	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:36	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749010

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-11D2-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-39-3	Barium	165	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-41-7	Beryllium	4.12	ug/L		0.200	0.500	0.500	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-42-8	Boron	286	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:44	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-70-2	Calcium	2770	ug/L		30.0	100	100	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-48-4	Cobalt	10.5	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7439-92-1	Lead	0.567	ug/L	J	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7439-93-2	Lithium	18.8	ug/L		2.00	10.0	10.0	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:31	033122W1-4	2247198
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:38	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:40	220329-2	2243382
7440-28-0	Thallium	0.427	ug/L	J	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:40	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749011

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-12-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-38-2	Arsenic	362	ug/L		1.66	5.00	5.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-39-3	Barium	284	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-42-8	Boron	1170	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:46	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-70-2	Calcium	137000	ug/L		300	1000	1000	10	MS	PRB	03/30/22 19:46	220330-3	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-48-4	Cobalt	0.736	ug/L	J	0.100	1.00	1.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7439-93-2	Lithium	16.4	ug/L		2.00	10.0	10.0	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:32	033122W1-4	2247198
7439-98-7	Molybdenum	26.6	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:40	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:53	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:53	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749012

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: FBLK-WAT-CCR-AP-2210

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: AQ

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-39-3	Barium	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-42-8	Boron	4.07	ug/L	J	4.00	15.0	15.0	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-70-2	Calcium	30.0	ug/L	U	30.0	100	100	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 10:34	033122W1-4	2247198
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:45	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 01:57	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 01:57	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573749

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573749013

BASIS: As Received

DATE COLLECTED 17-MAR-22

CLIENT ID: MW-AP-13-2022Q1

LEVEL: Low

DATE RECEIVED 18-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-38-2	Arsenic	668	ug/L		1.66	5.00	5.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-39-3	Barium	133	ug/L		0.500	2.00	2.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-42-8	Boron	597	ug/L		40.0	150	150	10	MS	PRB	03/30/22 19:52	220330-3	2243382
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-70-2	Calcium	53500	ug/L		300	1000	1000	10	MS	PRB	03/30/22 19:52	220330-3	2243382
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-48-4	Cobalt	2.19	ug/L		0.100	1.00	1.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7439-93-2	Lithium	16.9	ug/L		2.00	10.0	10.0	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 11:02	033122W1-4	2247198
7439-98-7	Molybdenum	3.99	ug/L		0.167	0.500	0.500	1	MS	BAJ	03/31/22 12:47	220331-1	2243382
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	PRB	03/30/22 02:01	220329-2	2243382
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	PRB	03/30/22 02:01	220329-2	2243382

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243382	2243381	EPA 200.2	50	mL	50	mL	03/21/22	RG1
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Antimony	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Arsenic	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Barium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Beryllium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Boron	98.6	ug/L	100	ug/L	98.6	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Cadmium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Chromium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Cobalt	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Lead	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Lithium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Selenium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	29-MAR-22 23:04	220329-2
	Arsenic	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	30-MAR-22 18:51	220330-3
	Boron	100	ug/L	100	ug/L	100.3	90.0 – 110.0	MS	30-MAR-22 18:51	220330-3
	Calcium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	MS	30-MAR-22 18:51	220330-3
	Mercury	5.03	ug/L	5	ug/L	100.6	95.0 – 105.0	AV	31-MAR-22 09:52	033122W1-4
	Molybdenum	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	31-MAR-22 11:06	220331-1
CCV01										
	Antimony	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Arsenic	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Barium	49.7	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Beryllium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Boron	97.8	ug/L	100	ug/L	97.8	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Cadmium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Calcium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Chromium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Cobalt	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Lead	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Lithium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Selenium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Thallium	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	29-MAR-22 23:24	220329-2
	Arsenic	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	30-MAR-22 19:01	220330-3
	Boron	97.8	ug/L	100	ug/L	97.8	90.0 – 110.0	MS	30-MAR-22 19:01	220330-3
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	MS	30-MAR-22 19:01	220330-3
	Mercury	4.98	ug/L	5	ug/L	99.5	90.0 – 110.0	AV	31-MAR-22 09:57	033122W1-4
	Molybdenum	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	31-MAR-22 11:15	220331-1
CCV02										
	Antimony	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Arsenic	49.3	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Barium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Boron	99.1	ug/L	100	ug/L	99.1	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Cadmium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Chromium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Cobalt	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Lead	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Lithium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	29-MAR-22 23:36	220329-2
	Arsenic	49.3	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	30-MAR-22 19:08	220330-3
	Boron	98.4	ug/L	100	ug/L	98.4	90.0 – 110.0	MS	30-MAR-22 19:08	220330-3
	Calcium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	MS	30-MAR-22 19:08	220330-3
	Mercury	4.91	ug/L	5	ug/L	98.2	90.0 – 110.0	AV	31-MAR-22 10:16	033122W1-4
	Molybdenum	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	31-MAR-22 12:04	220331-1
CCV03										
	Antimony	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Barium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Beryllium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Boron	97.2	ug/L	100	ug/L	97.2	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cadmium	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Chromium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Cobalt	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Lead	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Lithium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Selenium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Thallium	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	30-MAR-22 00:24	220329-2
	Arsenic	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	30-MAR-22 19:25	220330-3
	Boron	100	ug/L	100	ug/L	100.3	90.0 – 110.0	MS	30-MAR-22 19:25	220330-3
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	MS	30-MAR-22 19:25	220330-3
	Mercury	4.93	ug/L	5	ug/L	98.6	90.0 – 110.0	AV	31-MAR-22 10:36	033122W1-4
	Molybdenum	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	31-MAR-22 12:24	220331-1
CCV04	Antimony	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Barium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Beryllium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Boron	101	ug/L	100	ug/L	100.5	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Cadmium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Chromium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Cobalt	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Lead	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Lithium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Selenium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Thallium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	30-MAR-22 01:00	220329-2
	Arsenic	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	30-MAR-22 19:48	220330-3
	Boron	98.1	ug/L	100	ug/L	98.1	90.0 – 110.0	MS	30-MAR-22 19:48	220330-3
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	MS	30-MAR-22 19:48	220330-3
	Mercury	4.92	ug/L	5	ug/L	98.4	90.0 – 110.0	AV	31-MAR-22 10:57	033122W1-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Molybdenum	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	31-MAR-22 12:42	220331-1
CCV05	Antimony	48.9	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Arsenic	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Barium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Boron	101	ug/L	100	ug/L	101.4	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Cadmium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Chromium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Cobalt	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Lead	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Lithium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Selenium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Thallium	47.6	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	30-MAR-22 01:45	220329-2
	Arsenic	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	30-MAR-22 20:07	220330-3
	Boron	98.4	ug/L	100	ug/L	98.4	90.0 – 110.0	MS	30-MAR-22 20:07	220330-3
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	MS	30-MAR-22 20:07	220330-3
	Mercury	4.88	ug/L	5	ug/L	97.6	90.0 – 110.0	AV	31-MAR-22 11:06	033122W1-4
	Molybdenum	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	31-MAR-22 13:01	220331-1
CCV06	Antimony	48.4	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Arsenic	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Barium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Beryllium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Boron	99.6	ug/L	100	ug/L	99.6	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Cadmium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Chromium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Cobalt	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Lead	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lithium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	30-MAR-22 02:33	220329-2

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Antimony	2.89	ug/L	3	ug/L	96.3	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Arsenic	4.92	ug/L	5	ug/L	98.5	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Barium	4.13	ug/L	4	ug/L	103.4	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Beryllium	.519	ug/L	.5	ug/L	103.8	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Boron	13.4	ug/L	15	ug/L	89.6	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Cadmium	1	ug/L	1	ug/L	100.3	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Calcium	252	ug/L	200	ug/L	126	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Chromium	10.2	ug/L	10	ug/L	102.1	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Cobalt	1.04	ug/L	1	ug/L	104.1	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Lead	2.08	ug/L	2	ug/L	103.8	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Lithium	9.91	ug/L	10	ug/L	99.1	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Selenium	5.35	ug/L	5	ug/L	106.9	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Thallium	1.83	ug/L	2	ug/L	91.5	70.0 – 130.0	MS	29-MAR-22 23:12	220329-2
	Arsenic	4.83	ug/L	5	ug/L	96.7	70.0 – 130.0	MS	30-MAR-22 18:55	220330-3
	Boron	14.8	ug/L	15	ug/L	98.5	70.0 – 130.0	MS	30-MAR-22 18:55	220330-3
	Calcium	242	ug/L	200	ug/L	121.1	70.0 – 130.0	MS	30-MAR-22 18:55	220330-3
	Mercury	.183	ug/L	.2	ug/L	91.5	70.0 – 130.0	AV	31-MAR-22 09:55	033122W1-4
	Molybdenum	1.01	ug/L	1	ug/L	100.8	70.0 – 130.0	MS	31-MAR-22 11:09	220331-1
CRDL02										
	Antimony	2.82	ug/L	3	ug/L	93.9	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Arsenic	4.95	ug/L	5	ug/L	99	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Barium	4.07	ug/L	4	ug/L	101.8	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Beryllium	.508	ug/L	.5	ug/L	101.6	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Boron	11.4	ug/L	15	ug/L	75.7	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Cadmium	.924	ug/L	1	ug/L	92.4	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Calcium	241	ug/L	200	ug/L	120.6	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Chromium	9.91	ug/L	10	ug/L	99.1	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Cobalt	1	ug/L	1	ug/L	100.2	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Lead	2.05	ug/L	2	ug/L	102.5	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Lithium	9.84	ug/L	10	ug/L	98.4	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Selenium	5.33	ug/L	5	ug/L	106.6	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2
	Thallium	1.72	ug/L	2	ug/L	85.8	70.0 – 130.0	MS	30-MAR-22 00:12	220329-2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS12,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Arsenic	4.93	ug/L	5	ug/L	98.5	70.0 – 130.0	MS	30-MAR-22 20:00	220330-3
	Boron	15.4	ug/L	15	ug/L	102.5	70.0 – 130.0	MS	30-MAR-22 20:00	220330-3
	Calcium	239	ug/L	200	ug/L	119.5	70.0 – 130.0	MS	30-MAR-22 20:00	220330-3
	Mercury	.169	ug/L	.2	ug/L	84.5	70.0 – 130.0	AV	31-MAR-22 10:56	033122W1-4
	Molybdenum	1.02	ug/L	1	ug/L	101.8	70.0 – 130.0	MS	31-MAR-22 11:59	220331-1
CRDL03										
	Antimony	2.89	ug/L	3	ug/L	96.3	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Arsenic	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Barium	3.84	ug/L	4	ug/L	96.1	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Beryllium	.502	ug/L	.5	ug/L	100.4	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Boron	16.2	ug/L	15	ug/L	108	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Cadmium	.923	ug/L	1	ug/L	92.3	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Calcium	247	ug/L	200	ug/L	123.7	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Chromium	10.2	ug/L	10	ug/L	102.2	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Cobalt	1.05	ug/L	1	ug/L	104.5	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Lead	2	ug/L	2	ug/L	99.8	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Lithium	9.67	ug/L	10	ug/L	96.7	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Selenium	5.19	ug/L	5	ug/L	103.8	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Thallium	1.75	ug/L	2	ug/L	87.5	70.0 – 130.0	MS	30-MAR-22 02:21	220329-2
	Mercury	.172	ug/L	.2	ug/L	86	70.0 – 130.0	AV	31-MAR-22 11:04	033122W1-4
	Molybdenum	.99	ug/L	1	ug/L	99	70.0 – 130.0	MS	31-MAR-22 12:56	220331-1

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	29-MAR-22 23:08	220329-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	29-MAR-22 23:08	220329-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	29-MAR-22 23:08	220329-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	29-MAR-22 23:08	220329-2
	Thallium	0.22	+/-0.25	B	0.125	0.5	LIQ	MS	29-MAR-22 23:08	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 18:53	220330-3
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 18:53	220330-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 18:53	220330-3
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	31-MAR-22 09:54	033122W1-4
	Molybdenum	0.167	+/-0.25	U	0.167	0.5	LIQ	MS	31-MAR-22 11:08	220331-1
CCB01										
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	29-MAR-22 23:28	220329-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	29-MAR-22 23:28	220329-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	29-MAR-22 23:28	220329-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	29-MAR-22 23:28	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	29-MAR-22 23:28	220329-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Thallium	0.187	+/- .25	B	0.125	0.5	LIQ	MS	29-MAR-22 23:28	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 19:04	220330-3
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 19:04	220330-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 19:04	220330-3
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	31-MAR-22 09:59	033122W1-4
	Molybdenum	0.24	+/- .25	B	0.167	0.5	LIQ	MS	31-MAR-22 11:16	220331-1
CCB02	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	29-MAR-22 23:40	220329-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	29-MAR-22 23:40	220329-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	29-MAR-22 23:40	220329-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	29-MAR-22 23:40	220329-2
	Thallium	0.239	+/- .25	B	0.125	0.5	LIQ	MS	29-MAR-22 23:40	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 19:10	220330-3
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 19:10	220330-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 19:10	220330-3
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	31-MAR-22 10:18	033122W1-4
	Molybdenum	0.246	+/- .25	B	0.167	0.5	LIQ	MS	31-MAR-22 12:06	220331-1
CCB03	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	30-MAR-22 00:28	220329-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 00:28	220329-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	30-MAR-22 00:28	220329-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 00:28	220329-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	30-MAR-22 00:28	220329-2
	Thallium	0.184	+/-0.25	B	0.125	0.5	LIQ	MS	30-MAR-22 00:28	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 19:27	220330-3
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 19:27	220330-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 19:27	220330-3
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	31-MAR-22 10:37	033122W1-4
	Molybdenum	0.167	+/-0.25	U	0.167	0.5	LIQ	MS	31-MAR-22 12:26	220331-1
CCB04										
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	30-MAR-22 01:04	220329-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	30-MAR-22 01:04	220329-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 01:04	220329-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	30-MAR-22 01:04	220329-2
	Thallium	0.193	+/-0.25	B	0.125	0.5	LIQ	MS	30-MAR-22 01:04	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 19:50	220330-3
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 19:50	220330-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 19:50	220330-3
	Mercury	0.067	+/-0.1	U	0.067	0.2	LIQ	AV	31-MAR-22 10:59	033122W1-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB05	Molybdenum	0.167	+/- .25	U	0.167	0.5	LIQ	MS	31-MAR-22 12:44	220331-1
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	30-MAR-22 01:49	220329-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	30-MAR-22 01:49	220329-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 01:49	220329-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	30-MAR-22 01:49	220329-2
	Thallium	0.186	+/- .25	B	0.125	0.5	LIQ	MS	30-MAR-22 01:49	220329-2
	CCB06	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 20:09
Boron		4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 20:09	220330-3
Calcium		30.0	+/-50	U	30.0	100	LIQ	MS	30-MAR-22 20:09	220330-3
Mercury		0.067	+/- .1	U	0.067	0.2	LIQ	AV	31-MAR-22 11:08	033122W1-4
Molybdenum		0.247	+/- .25	B	0.167	0.5	LIQ	MS	31-MAR-22 13:03	220331-1
Antimony		0.6	+/-1	U	0.6	2.0	LIQ	MS	30-MAR-22 02:37	220329-2
Arsenic		1.66	+/-2.5	U	1.66	5.0	LIQ	MS	30-MAR-22 02:37	220329-2
Barium		0.5	+/-1	U	0.5	2.0	LIQ	MS	30-MAR-22 02:37	220329-2
Beryllium		0.2	+/- .25	U	0.2	0.5	LIQ	MS	30-MAR-22 02:37	220329-2
Boron		4.0	+/-7.5	U	4.0	15.0	LIQ	MS	30-MAR-22 02:37	220329-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	30-MAR-22 02:37	220329-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	30-MAR-22 02:37	220329-2
	Thallium	0.194	+/-0.25	B	0.125	0.5	LIQ	MS	30-MAR-22 02:37	220329-2

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 573749
Contract: DMNN00101
Matrix: GW

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205045467	Antimony	0.600	ug/L	+/-1	U	MS	0.600	2.00
	Arsenic	1.66	ug/L	+/-2.5	U	MS	1.66	5.00
	Barium	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Beryllium	0.200	ug/L	+/-0.25	U	MS	0.200	0.500
	Boron	4.00	ug/L	+/-7.5	U	MS	4.00	15.0
	Cadmium	0.0300	ug/L	+/-0.05	U	MS	0.0300	0.100
	Calcium	30.0	ug/L	+/-50	U	MS	30.0	100
	Chromium	1.00	ug/L	+/-1.5	U	MS	1.00	3.00
	Cobalt	0.100	ug/L	+/-0.5	U	MS	0.100	1.00
	Lead	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Lithium	2.00	ug/L	+/-5	U	MS	2.00	10.0
	Molybdenum	0.167	ug/L	+/-0.25	U	MS	0.167	0.500
	Selenium	1.50	ug/L	+/-2.5	U	MS	1.50	5.00
	Thallium	0.125	ug/L	+/-0.25	U	MS	0.125	0.500
1205053311	Mercury	0.0670	ug/L	+/-0.1	U	AV	0.0670	0.200

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
-4-
Interference Check Sample

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Molybdenum	2050	ug/L	2000	ug/L	102	80.0 – 120.0	31-MAR-22 11:11	220331-1
ICSAB01	Molybdenum	2080	ug/L	2000	ug/L	104	80.0 – 120.0	31-MAR-22 11:13	220331-1
ICSA02	Molybdenum	2040	ug/L	2000	ug/L	102	80.0 – 120.0	31-MAR-22 11:46	220331-1
ICSAB02	Molybdenum	2050	ug/L	2000	ug/L	103	80.0 – 120.0	31-MAR-22 11:48	220331-1
ICSA03	Molybdenum	2060	ug/L	2000	ug/L	103	80.0 – 120.0	31-MAR-22 12:01	220331-1
ICSAB03	Molybdenum	2040	ug/L	2000	ug/L	102	80.0 – 120.0	31-MAR-22 12:02	220331-1
ICSA04	Molybdenum	2050	ug/L	2000	ug/L	103	80.0 – 120.0	31-MAR-22 12:58	220331-1
ICSAB04	Molybdenum	2110	ug/L	2000	ug/L	106	80.0 – 120.0	31-MAR-22 12:59	220331-1

METALS
-4-
Interference Check Sample

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.148	ug/L					29-MAR-22 23:16	220329-2
	Arsenic	0.234	ug/L					29-MAR-22 23:16	220329-2
	Barium	0.253	ug/L					29-MAR-22 23:16	220329-2
	Beryllium	-0.005	ug/L					29-MAR-22 23:16	220329-2
	Boron	-0.219	ug/L					29-MAR-22 23:16	220329-2
	Cadmium	0.585	ug/L					29-MAR-22 23:16	220329-2
	Calcium	93000	ug/L	100000	ug/L	93	80.0 - 120.0	29-MAR-22 23:16	220329-2
	Chromium	0.7	ug/L					29-MAR-22 23:16	220329-2
	Cobalt	0.902	ug/L					29-MAR-22 23:16	220329-2
	Lead	0.411	ug/L					29-MAR-22 23:16	220329-2
	Lithium	0.007	ug/L					29-MAR-22 23:16	220329-2
	Selenium	0.507	ug/L					29-MAR-22 23:16	220329-2
	Thallium	0.074	ug/L					29-MAR-22 23:16	220329-2
ICSA01									
	Antimony	19.3	ug/L	20	ug/L	96.5	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Arsenic	19.8	ug/L	20	ug/L	98.8	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Barium	19.6	ug/L	20	ug/L	98	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Beryllium	18.6	ug/L	20	ug/L	93	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Boron	18.6	ug/L	20	ug/L	92.8	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Cadmium	19.6	ug/L	20.83	ug/L	94.3	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Calcium	94500	ug/L	100000	ug/L	94.5	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Chromium	20.4	ug/L	20	ug/L	102	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Cobalt	20.5	ug/L	21.05	ug/L	97.5	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Lead	19.0	ug/L	20	ug/L	95	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Lithium	19.5	ug/L	20	ug/L	97.5	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Selenium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	29-MAR-22 23:20	220329-2
	Thallium	18.2	ug/L	20	ug/L	90.8	80.0 - 120.0	29-MAR-22 23:20	220329-2
ICSA02									
	Antimony	0.138	ug/L					30-MAR-22 00:16	220329-2
	Arsenic	0.205	ug/L					30-MAR-22 00:16	220329-2

METALS

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Interference Check Sample

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Barium	0.225	ug/L					30-MAR-22 00:16	220329-2
	Beryllium	0.015	ug/L					30-MAR-22 00:16	220329-2
	Boron	-1.28	ug/L					30-MAR-22 00:16	220329-2
	Cadmium	0.585	ug/L					30-MAR-22 00:16	220329-2
	Calcium	94100	ug/L	100000	ug/L	94.1	80.0 - 120.0	30-MAR-22 00:16	220329-2
	Chromium	0.692	ug/L					30-MAR-22 00:16	220329-2
	Cobalt	0.938	ug/L					30-MAR-22 00:16	220329-2
	Lead	0.413	ug/L					30-MAR-22 00:16	220329-2
	Lithium	0.017	ug/L					30-MAR-22 00:16	220329-2
	Selenium	0.531	ug/L					30-MAR-22 00:16	220329-2
	Thallium	0.042	ug/L					30-MAR-22 00:16	220329-2
ICSAB02									
	Antimony	19.9	ug/L	20	ug/L	99.4	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Arsenic	20.2	ug/L	20	ug/L	101	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Barium	19.7	ug/L	20	ug/L	98.5	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Beryllium	18.4	ug/L	20	ug/L	92.1	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Boron	17.4	ug/L	20	ug/L	87.2	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Cadmium	19.4	ug/L	20.83	ug/L	93.2	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Calcium	93900	ug/L	100000	ug/L	93.9	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Chromium	20.3	ug/L	20	ug/L	101	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Cobalt	20.2	ug/L	21.05	ug/L	95.9	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Lead	19.1	ug/L	20	ug/L	95.5	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Lithium	19.0	ug/L	20	ug/L	94.8	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Selenium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	30-MAR-22 00:20	220329-2
	Thallium	18.4	ug/L	20	ug/L	91.8	80.0 - 120.0	30-MAR-22 00:20	220329-2
ICSA03									
	Antimony	0.18	ug/L					30-MAR-22 02:25	220329-2
	Arsenic	0.383	ug/L					30-MAR-22 02:25	220329-2
	Barium	0.256	ug/L					30-MAR-22 02:25	220329-2
	Beryllium	0.024	ug/L					30-MAR-22 02:25	220329-2

METALS

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Interference Check Sample

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Boron	2.27	ug/L					30-MAR-22 02:25	220329-2
	Cadmium	0.581	ug/L					30-MAR-22 02:25	220329-2
	Calcium	92200	ug/L	100000	ug/L	92.2	80.0 - 120.0	30-MAR-22 02:25	220329-2
	Chromium	0.669	ug/L					30-MAR-22 02:25	220329-2
	Cobalt	0.943	ug/L					30-MAR-22 02:25	220329-2
	Lead	0.411	ug/L					30-MAR-22 02:25	220329-2
	Lithium	0.019	ug/L					30-MAR-22 02:25	220329-2
	Selenium	0.445	ug/L					30-MAR-22 02:25	220329-2
	Thallium	0.054	ug/L					30-MAR-22 02:25	220329-2
ICSAB03									
	Antimony	19.5	ug/L	20	ug/L	97.4	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Barium	19.2	ug/L	20	ug/L	95.9	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Beryllium	18.4	ug/L	20	ug/L	92	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Boron	19.0	ug/L	20	ug/L	94.9	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Cadmium	19.3	ug/L	20.83	ug/L	92.5	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Calcium	91700	ug/L	100000	ug/L	91.7	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Chromium	20.0	ug/L	20	ug/L	99.8	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Cobalt	20.2	ug/L	21.05	ug/L	95.8	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Lead	18.9	ug/L	20	ug/L	94.7	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Lithium	19.3	ug/L	20	ug/L	96.3	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Selenium	20.5	ug/L	20	ug/L	103	80.0 - 120.0	30-MAR-22 02:29	220329-2
	Thallium	18.3	ug/L	20	ug/L	91.4	80.0 - 120.0	30-MAR-22 02:29	220329-2

METALS

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Interference Check Sample

SDG No: 573749

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Arsenic	0.271	ug/L					30-MAR-22 18:57	220330-3
	Boron	1.81	ug/L					30-MAR-22 18:57	220330-3
	Calcium	96300	ug/L	100000	ug/L	96.3	80.0 - 120.0	30-MAR-22 18:57	220330-3
ICSAB01									
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 - 120.0	30-MAR-22 18:59	220330-3
	Boron	19.3	ug/L	20	ug/L	96.3	80.0 - 120.0	30-MAR-22 18:59	220330-3
	Calcium	96100	ug/L	100000	ug/L	96.1	80.0 - 120.0	30-MAR-22 18:59	220330-3
ICSA02									
	Arsenic	0.265	ug/L					30-MAR-22 20:03	220330-3
	Boron	2.16	ug/L					30-MAR-22 20:03	220330-3
	Calcium	95600	ug/L	100000	ug/L	95.6	80.0 - 120.0	30-MAR-22 20:03	220330-3
ICSAB02									
	Arsenic	20.1	ug/L	20	ug/L	101	80.0 - 120.0	30-MAR-22 20:05	220330-3
	Boron	19.2	ug/L	20	ug/L	96	80.0 - 120.0	30-MAR-22 20:05	220330-3
	Calcium	95900	ug/L	100000	ug/L	95.9	80.0 - 120.0	30-MAR-22 20:05	220330-3

METALS

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Matrix Spike Summary

SDG NO. 573749

Client ID: MW-AP-03-2022Q1S

Contract: DMNN00101

Level: Low

Matrix: GROUND WATER

% Solids:

Sample ID: 573749001

Spike ID: 1205045470

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Antimony	ug/L	75-125	48.1		0.600	U	50.0	96.2		MS
Arsenic	ug/L		1250		1170		50.0	166	N/A	MS
Barium	ug/L		247		206		50.0	83.4	N/A	MS
Beryllium	ug/L	75-125	48.6		0.200	U	50.0	97.1		MS
Boron	ug/L		1800		1620		100	175	N/A	MS
Cadmium	ug/L	75-125	46.7		0.0300	U	50.0	93.5		MS
Calcium	ug/L		82600		77100		2000	276	N/A	MS
Chromium	ug/L	75-125	50.4		1.00	U	50.0	99.6		MS
Cobalt	ug/L	75-125	50.2		0.265	B	50.0	100		MS
Lead	ug/L	75-125	46.4		0.500	U	50.0	92.7		MS
Lithium	ug/L	75-125	116		67.8		50.0	96		MS
Molybdenum	ug/L	75-125	72.6		21.0		50.0	103		MS
Selenium	ug/L	75-125	48.4		1.50	U	50.0	96.3		MS
Thallium	ug/L	75-125	46.4		0.211	B	50.0	92.5		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Matrix Spike Summary

SDG NO. 573749

Client ID: MW-AP-13-2022Q1S

Contract: DMNN00101

Level: Low

Matrix: GROUND WATER

% Solids:

Sample ID: 573749013

Spike ID: 1205045473

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Antimony	ug/L	75-125	48.0		0.600	U	50.0	96		MS
Arsenic	ug/L		720		668		50.0	104	N/A	MS
Barium	ug/L	75-125	181		133		50.0	94.5		MS
Beryllium	ug/L	75-125	49.0		0.200	U	50.0	97.9		MS
Boron	ug/L		658		597		100	61	N/A	MS
Cadmium	ug/L	75-125	47.5		0.0300	U	50.0	95		MS
Calcium	ug/L		52800		53500		2000	-32.4	N/A	MS
Chromium	ug/L	75-125	50.7		1.00	U	50.0	101		MS
Cobalt	ug/L	75-125	53.3		2.19		50.0	102		MS
Lead	ug/L	75-125	47.5		0.500	U	50.0	95.1		MS
Lithium	ug/L	75-125	64.5		16.9		50.0	95.2		MS
Molybdenum	ug/L	75-125	57.3		3.99		50.0	107		MS
Selenium	ug/L	75-125	42.3		1.50	U	50.0	82.6		MS
Thallium	ug/L	75-125	46.8		0.125	U	50.0	93.6		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Matrix Spike Summary

SDG NO. 573749

Client ID: Upstream-2022Q1S

Contract: DMNN00101

Level: Low

Matrix: SURFACE WATER

% Solids:

Sample ID: 573867003

Spike ID: 1205053314

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
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*Analytical Methods:

METALS

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Matrix Spike Summary

SDG NO. 573749 Client ID: MW-AP-03-2022Q1S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 573749001 Spike ID: 1205053320

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	75-125	1.13		0.0670	U	2.00	56.7	N	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

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Spike Summary

SDG NO. 573749 Client ID: MW-AP-03-2022Q1PS

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 573749001 Spike ID: 1205053322

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	80-120	1.15		0.0670	U	2.00	57.4	N	AV

*Analytical Methods:

AV EPA 245.1/245.2

Metals
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Duplicate Sample Summary

SDG No.: 573749

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-03-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573749001

Duplicate ID: 1205045469

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	ug/L		0.600	U	0.600	U			MS
Arsenic	ug/L	+/-20%	1170		1180		1.38		MS
Barium	ug/L	+/-20%	206		202		1.88		MS
Beryllium	ug/L		0.200	U	0.200	U			MS
Boron	ug/L	+/-20%	1620		1660		2.73		MS
Cadmium	ug/L		0.0300	U	0.0300	U			MS
Calcium	ug/L	+/-20%	77100		79900		3.51		MS
Chromium	ug/L		1.00	U	1.00	U			MS
Cobalt	ug/L	+/-2	0.265	B	0.258	B	2.68		MS
Lead	ug/L		0.500	U	0.500	U			MS
Lithium	ug/L	+/-20%	67.8		69.4		2.38		MS
Molybdenum	ug/L	+/-20%	21.0		20.4		2.95		MS
Selenium	ug/L		1.50	U	1.50	U			MS
Thallium	ug/L		0.211	B	0.125	U	200		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
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Duplicate Sample Summary

SDG No.: 573749

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-13-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573749013

Duplicate ID: 1205045472

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	ug/L		0.600	U	0.600	U			MS
Arsenic	ug/L	+/-20%	668		661		1.04		MS
Barium	ug/L	+/-20%	133		131		1.52		MS
Beryllium	ug/L		0.200	U	0.200	U			MS
Boron	ug/L	+/-300	597		583		2.38		MS
Cadmium	ug/L		0.0300	U	0.0300	U			MS
Calcium	ug/L	+/-20%	53500		52000		2.79		MS
Chromium	ug/L		1.00	U	1.00	U			MS
Cobalt	ug/L	+/-2	2.19		2.19		.137		MS
Lead	ug/L		0.500	U	0.500	U			MS
Lithium	ug/L	+/-20	16.9		17.0		.42		MS
Molybdenum	ug/L	+/-20%	3.99		3.96		.856		MS
Selenium	ug/L		1.50	U	1.50	U			MS
Thallium	ug/L		0.125	U	0.125	U			MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
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Duplicate Sample Summary

Metals
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Duplicate Sample Summary

SDG No.: 573749

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-03-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573749001

Duplicate ID: 1205053319

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/L		0.0670	U	0.0670	U			AV

*Analytical Methods:
 AV EPA 245.1/245.2

METALS

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Laboratory Control Sample Summary

SDG NO. 573749

Contract: DMNN00101

Aqueous LCS Source: Enviromental Express

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205045468								
	Antimony	ug/L	50.0	46.7		93.4	85-115	MS
	Arsenic	ug/L	50.0	49.8		99.5	85-115	MS
	Barium	ug/L	50.0	48.4		96.8	85-115	MS
	Beryllium	ug/L	50.0	49.7		99.4	85-115	MS
	Boron	ug/L	100	98.2		98.2	85-115	MS
	Cadmium	ug/L	50.0	47.6		95.1	85-115	MS
	Calcium	ug/L	2000	2210		111	85-115	MS
	Chromium	ug/L	50.0	49.5		99.1	85-115	MS
	Cobalt	ug/L	50.0	50.3		101	85-115	MS
	Lead	ug/L	50.0	49.3		98.6	85-115	MS
	Lithium	ug/L	50.0	48.2		96.4	80-120	MS
	Molybdenum	ug/L	50.0	50.1		100	85-115	MS
	Selenium	ug/L	50.0	51.4		103	85-115	MS
	Thallium	ug/L	50.0	46.5		92.9	85-115	MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Laboratory Control Sample Summary

SDG NO. 573749

Contract: DMNN00101

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205053312	Mercury	ug/L	2.00	2.06		103	85-115	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
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 Serial Dilution Sample Summary

SDG NO. 573749 **Client ID:** MW-AP-03-2022Q1L

Contract: DMNN00101

Matrix: LIQUID **Level:** Low

Sample ID: 573749001 **Serial Dilution ID:** 1205045471

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Antimony	.6	U	3	U				MS
Arsenic	58.4		56.3		3.598			MS
Barium	206		203		1.123		10	MS
Beryllium	.2	U	1	U				MS
Boron	81		80.9		.084			MS
Cadmium	.03	U	.15	U				MS
Calcium	3860		3840		.31			MS
Chromium	1	U	5	U				MS
Cobalt	.265	B	.5	U	20.755			MS
Lead	.5	U	2.5	U				MS
Lithium	67.8		66.2		2.303			MS
Molybdenum	21		19.2		8.428			MS
Selenium	1.5	U	7.5	U				MS
Thallium	.211	B	.955	B	352.607			MS

***Analytical Methods:**

MS EPA 200.8 SC_NPDES

METALS

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Serial Dilution Sample Summary

SDG NO. 573749 Client ID: MW-AP-13-2022Q1L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573749013 Serial Dilution ID: 1205045474

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Antimony	.6	U	3	U				MS
Arsenic	668		673		.805		10	MS
Barium	133		138		3.495		10	MS
Beryllium	.2	U	1	U				MS
Boron	59.7		62.3	B	4.434			MS
Cadmium	.03	U	.15	U				MS
Calcium	5350		5290		1.089		10	MS
Chromium	1	U	5	U				MS
Cobalt	2.19		2.19	B	.046			MS
Lead	.5	U	2.5	U				MS
Lithium	16.9		18.1	B	7.392			MS
Molybdenum	3.99		.835	U	98.747			MS
Selenium	1.5	U	7.5	U				MS
Thallium	.125	U	1	B				MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Serial Dilution Sample Summary

METALS

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Serial Dilution Sample Summary

SDG NO. 573749 Client ID: MW-AP-03-2022Q1L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573749001 Serial Dilution ID: 1205053321

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.067	U	.335	U				AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 573749

Method Type: MS

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2243381							
1205045467	MB for batch 2243381	MB	G	21-MAR-22	50mL	50mL	
1205045468	LCS for batch 2243381	LCS	G	21-MAR-22	50mL	50mL	
1205045470	MW-AP-03-2022Q1S	MS	G	21-MAR-22	50mL	50mL	
1205045473	MW-AP-13-2022Q1S	MS	G	21-MAR-22	50mL	50mL	
1205045469	MW-AP-03-2022Q1D	DUP	G	21-MAR-22	50mL	50mL	
1205045472	MW-AP-13-2022Q1D	DUP	G	21-MAR-22	50mL	50mL	
573749001	MW-AP-03-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749002	MW-AP-03D-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749003	MW-AP-03D2-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749004	MW-AP-04-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749005	FBLK-WAT-CCR-AP-22104	SAMPLE	G	21-MAR-22	50mL	50mL	
573749006	MW-AP-05-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749007	MW-AP-09-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749008	MW-AP-09D-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749009	MW-AP-11D-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749010	MW-AP-11D2-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749011	MW-AP-12-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	
573749012	FBLK-WAT-CCR-AP-22105	SAMPLE	G	21-MAR-22	50mL	50mL	
573749013	MW-AP-13-2022Q1	SAMPLE	G	21-MAR-22	50mL	50mL	

EPA

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 573749

Method Type: AV

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2247196							
1205053311	MB for batch 2247196	MB	G	30-MAR-22	20mL	20mL	
1205053312	LCS for batch 2247196	LCS	G	30-MAR-22	20mL	20mL	
1205053320	MW-AP-03-2022Q1S	MS	G	30-MAR-22	20mL	20mL	
1205053319	MW-AP-03-2022Q1D	DUP	G	30-MAR-22	20mL	20mL	
573749001	MW-AP-03-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749002	MW-AP-03D-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749003	MW-AP-03D2-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749004	MW-AP-04-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749005	FBLK-WAT-CCR-AP-22104	SAMPLE	G	30-MAR-22	20mL	20mL	
573749006	MW-AP-05-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749007	MW-AP-09-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749008	MW-AP-09D-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749009	MW-AP-11D-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749010	MW-AP-11D2-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749011	MW-AP-12-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573749012	FBLK-WAT-CCR-AP-22105	SAMPLE	G	30-MAR-22	20mL	20mL	
573749013	MW-AP-13-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	

General Chem Analysis

Case Narrative

**General Chemistry
Technical Case Narrative
Dominion Energy
SDG #: 573749**

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2243316

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573749001	MW-AP-03-2022Q1
573749002	MW-AP-03D-2022Q1
573749003	MW-AP-03D2-2022Q1
573749004	MW-AP-04-2022Q1
573749005	FBLK-WAT-CCR-AP-22104
573749006	MW-AP-05-2022Q1
573749007	MW-AP-09-2022Q1
573749008	MW-AP-09D-2022Q1
573749009	MW-AP-11D-2022Q1
573749010	MW-AP-11D2-2022Q1
573749011	MW-AP-12-2022Q1
573749012	FBLK-WAT-CCR-AP-22105
573749013	MW-AP-13-2022Q1
1205045352	Method Blank (MB)
1205045353	Laboratory Control Sample (LCS)
1205045354	573749001(MW-AP-03-2022Q1) Sample Duplicate (DUP)
1205045356	573749001(MW-AP-03-2022Q1) Post Spike (PS)
1205045357	573749013(MW-AP-13-2022Q1) Sample Duplicate (DUP)
1205045358	573749013(MW-AP-13-2022Q1) Post Spike (PS)

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

Data Summary:

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

Technical Information

Sample Dilutions

The following samples 1205045354 (MW-AP-03-2022Q1DUP), 1205045356 (MW-AP-03-2022Q1PS), 1205045357 (MW-AP-13-2022Q1DUP), 1205045358 (MW-AP-13-2022Q1PS), 573749001 (MW-AP-03-2022Q1), 573749002 (MW-AP-03D-2022Q1), 573749003 (MW-AP-03D2-2022Q1), 573749004 (MW-AP-04-2022Q1), 573749006 (MW-AP-05-2022Q1), 573749007 (MW-AP-09-2022Q1), 573749008 (MW-AP-09D-2022Q1), 573749009 (MW-AP-11D-2022Q1), 573749010 (MW-AP-11D2-2022Q1), 573749011 (MW-AP-12-2022Q1) and 573749013 (MW-AP-13-2022Q1) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte

concentrations into the linear calibration range.

Analyte	573749									
	001	002	003	004	006	007	008	009	010	011
Chloride	40X	20X	10X	5X	20X	10X	25X	10X	5X	20X
Sulfate	40X	20X	10X	1X	20X	1X	25X	10X	5X	20X

Analyte	573749
	013
Chloride	20X
Sulfate	20X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Product: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 19
Analytical Batch: 2245082

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573749001	MW-AP-03-2022Q1
573749002	MW-AP-03D-2022Q1
573749003	MW-AP-03D2-2022Q1
573749004	MW-AP-04-2022Q1
573749005	FBLK-WAT-CCR-AP-22104
573749006	MW-AP-05-2022Q1
573749007	MW-AP-09-2022Q1
573749008	MW-AP-09D-2022Q1
573749009	MW-AP-11D-2022Q1
573749010	MW-AP-11D2-2022Q1
573749011	MW-AP-12-2022Q1
573749012	FBLK-WAT-CCR-AP-22105
573749013	MW-AP-13-2022Q1
1205049020	Method Blank (MB)
1205049021	Laboratory Control Sample (LCS)
1205049022	573749001(MW-AP-03-2022Q1) Sample Duplicate (DUP)
1205049023	574076001(NonSDG) Sample Duplicate (DUP)

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

Data Summary:

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

Technical Information

Holding Times

Holding time was changed after analysis. 573749005 (FBLK-WAT-CCR-AP-22104).

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573749 GEL Work Order: 573749


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- 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.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Aubrey Kingsbury

Date: 30 MAR 2022

Title: Team Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03-2022Q1	Project: DMNN00101
Sample ID: 573749001	Client ID: DMNN001
Matrix: GW	
Collect Date: 17-MAR-22 09:55	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.642	0.0330	0.100	mg/L		1	JLD1	03/19/22	0021	2243316	1
Chloride		153	2.68	8.00	mg/L		40	JLD1	03/19/22	1540	2243316	2
Sulfate		73.6	5.32	16.0	mg/L		40					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		469	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03D-2022Q1	Project: DMNN00101
Sample ID: 573749002	Client ID: DMNN001
Matrix: GW	
Collect Date: 17-MAR-22 11:15	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.358	0.0330	0.100	mg/L		1	JLD1	03/19/22	0153	2243316	1
Chloride		77.4	1.34	4.00	mg/L		20	JLD1	03/19/22	1712	2243316	2
Sulfate		71.9	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		354	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	MW-AP-03D2-2022Q1	Project:	DMNN00101
Sample ID:	573749003	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	17-MAR-22 12:45		
Receive Date:	18-MAR-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.101	0.0330	0.100	mg/L		1	JLD1	03/19/22	0224	2243316	1
Chloride		21.9	0.670	2.00	mg/L		10	JLD1	03/19/22	1743	2243316	2
Sulfate		95.6	1.33	4.00	mg/L		10					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		156	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

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: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	MW-AP-04-2022Q1	Project:	DMNN00101
Sample ID:	573749004	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	17-MAR-22 14:40		
Receive Date:	18-MAR-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.522	0.0330	0.100	mg/L		1	JLD1	03/19/22	0255	2243316	1
Sulfate		15.0	0.133	0.400	mg/L		1					
Chloride		22.2	0.335	1.00	mg/L		5	JLD1	03/19/22	1814	2243316	2
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		463	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22104 Project: DMNN00101
Sample ID: 573749005 Client ID: DMNN001
Matrix: AQ
Collect Date: 16-MAR-22 11:25
Receive Date: 18-MAR-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.213	0.0670	0.200	mg/L		1	JLD1	03/19/22	0326	2243316	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids	HU	ND	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-05-2022Q1	Project: DMNN00101
Sample ID: 573749006	Client ID: DMNN001
Matrix: GW	
Collect Date: 17-MAR-22 13:25	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0842	0.0330	0.100	mg/L		1	JLD1	03/19/22	0529	2243316	1
Chloride		13.6	1.34	4.00	mg/L		20	JLD1	03/19/22	1844	2243316	2
Sulfate		193	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		416	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-09-2022Q1	Project: DMN00101
Sample ID: 573749007	Client ID: DMN001
Matrix: GW	
Collect Date: 17-MAR-22 10:50	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.473	0.0330	0.100	mg/L		1	JLD1	03/19/22	0600	2243316	1
Sulfate		19.3	0.133	0.400	mg/L		1					
Chloride		49.8	0.670	2.00	mg/L		10	JLD1	03/19/22	1915	2243316	2
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		227	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-09D-2022Q1	Project: DMNN00101
Sample ID: 573749008	Client ID: DMNN001
Matrix: GW	
Collect Date: 17-MAR-22 09:30	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0555	0.0330	0.100	mg/L		1	JLD1	03/19/22	0631	2243316	1
Chloride		22.3	1.68	5.00	mg/L		25	JLD1	03/19/22	1946	2243316	2
Sulfate		293	3.33	10.0	mg/L		25					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		497	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-11D-2022Q1 Project: DMNN00101
Sample ID: 573749009 Client ID: DMNN001
Matrix: GW
Collect Date: 17-MAR-22 13:15
Receive Date: 18-MAR-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0824	0.0330	0.100	mg/L		1	JLD1	03/19/22	0701	2243316	1
Chloride		36.0	0.670	2.00	mg/L		10	JLD1	03/19/22	2017	2243316	2
Sulfate		75.0	1.33	4.00	mg/L		10					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		233	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SM 2540C		

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: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-11D2-2022Q1 Project: DMNN00101
Sample ID: 573749010 Client ID: DMNN001
Matrix: GW
Collect Date: 17-MAR-22 10:45
Receive Date: 18-MAR-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.107	0.0330	0.100	mg/L		1	JLD1	03/19/22	0732	2243316	1
Chloride		13.9	0.335	1.00	mg/L		5	JLD1	03/19/22	2220	2243316	2
Sulfate		44.4	0.665	2.00	mg/L		5					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		94.3	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SM 2540C		

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-12-2022Q1	Project: DMNN00101
Sample ID: 573749011	Client ID: DMNN001
Matrix: GW	
Collect Date: 17-MAR-22 16:30	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.747	0.0330	0.100	mg/L		1	JLD1	03/19/22	0803	2243316	1
Chloride		30.7	1.34	4.00	mg/L		20	JLD1	03/19/22	2251	2243316	2
Sulfate		257	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		643	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22105	Project: DMNN00101
Sample ID: 573749012	Client ID: DMNN001
Matrix: AQ	
Collect Date: 17-MAR-22 09:44	
Receive Date: 18-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.134	0.0670	0.200	mg/L		1	JLD1	03/19/22	0834	2243316	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids	U	ND	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-13-2022Q1

Project: DMNN00101

Sample ID: 573749013

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22 12:05

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.530	0.0330	0.100	mg/L		1	JLD1	03/19/22	0905	2243316	1
Chloride		31.9	1.34	4.00	mg/L		20	JLD1	03/19/22	2322	2243316	2
Sulfate		172	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		416	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

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

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 30, 2022

Page 1 of 3

Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia

Contact: Kelly Hicks

Workorder: 573749

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2243316										
QC1205045354	573749001	DUP									
Chloride		153		153	mg/L	0.0496		(0%-20%)	JLD1	03/19/22	16:10
Fluoride		0.642		0.650	mg/L	1.3		(0%-20%)		03/19/22	00:51
Sulfate		73.6		72.6	mg/L	1.31	^	(+/-32)		03/19/22	16:10
QC1205045357	573749013	DUP									
Chloride		31.9		31.9	mg/L	0.069		(0%-20%)		03/19/22	23:53
Fluoride		0.530		0.533	mg/L	0.508		(0%-20%)		03/19/22	09:36
Sulfate		172		172	mg/L	0.282		(0%-20%)		03/19/22	23:53
QC1205045353	LCS										
Chloride	5.00			4.87	mg/L			97.4 (90%-110%)		03/18/22	23:50
Fluoride	2.50			2.34	mg/L			93.8 (90%-110%)			
Sulfate	10.0			9.79	mg/L			97.9 (90%-110%)			
QC1205045352	MB										
Chloride			U	ND	mg/L					03/18/22	23:19
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205045356	573749001	PS									
Chloride	15.0	3.83		19.7	mg/L			106 (90%-110%)		03/19/22	16:41

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QC Summary

Workorder: 573749

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2243316										
Fluoride	2.50	0.642		3.15	mg/L		100	(90%-110%)	JLD1	03/19/22	01:22
Sulfate	30.0	1.84		33.1	mg/L		104	(90%-110%)		03/19/22	16:41
QC1205045358 573749013 PS											
Chloride	5.00	1.59		6.84	mg/L		105	(90%-110%)		03/20/22	00:24
Fluoride	2.50	0.530		2.91	mg/L		95.1	(90%-110%)		03/19/22	10:06
Sulfate	10.0	8.59		19.1	mg/L		105	(90%-110%)		03/20/22	00:24
Solids Analysis											
Batch	2245082										
QC1205049022 573749001 DUP											
Total Dissolved Solids		469		469	mg/L	0		(0%-5%)	KLP1	03/24/22	15:12
QC1205049023 574076001 DUP											
Total Dissolved Solids		683		710	mg/L	3.9		(0%-5%)		03/24/22	15:12
QC1205049021 LCS											
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		03/24/22	15:12
QC1205049020 MB											
Total Dissolved Solids			U	ND	mg/L					03/24/22	15:12

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 See case narrative for an explanation

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QC Summary

Workorder: 573749

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J											
J											
N/A											
NI											
ND											
NJ											
Q											
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.

Radiological Analysis

Case Narrative

**Radiochemistry
Technical Case Narrative
Dominion Energy
SDG #: 573749**

Product: GFPC Ra228, Liquid
Analytical Method: EPA 904.0
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2243558

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573749002	MW-AP-03D-2022Q1
573749003	MW-AP-03D2-2022Q1
573749004	MW-AP-04-2022Q1
573749005	FBLK-WAT-CCR-AP-22104
573749006	MW-AP-05-2022Q1
573749007	MW-AP-09-2022Q1
573749008	MW-AP-09D-2022Q1
573749009	MW-AP-11D-2022Q1
573749010	MW-AP-11D2-2022Q1
573749011	MW-AP-12-2022Q1
573749012	FBLK-WAT-CCR-AP-22105
573749013	MW-AP-13-2022Q1
1205045912	Method Blank (MB)
1205045913	573561001(MW-AP-01A-2022Q1) Sample Duplicate (DUP)
1205045914	573749009(MW-AP-11D-2022Q1) Sample Duplicate (DUP)
1205045915	Laboratory Control Sample (LCS)

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

Data Summary:

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

Technical Information

Recounts

Samples 1205045912 (MB), 1205045913 (MW-AP-01A-2022Q1DUP), 1205045914 (MW-AP-11D-2022Q1DUP) and 573749008 (MW-AP-09D-2022Q1) were recounted to verify sample results. Recounts are reported.

Product: GFPC Ra228, Liquid
Analytical Method: EPA 904.0
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2243881

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573749001	MW-AP-03-2022Q1
1205046587	Method Blank (MB)
1205046588	573749001(MW-AP-03-2022Q1) Sample Duplicate (DUP)
1205046589	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

RDL Met

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

Sample	Analyte	Value
1205046587 (MB)	Radium-228	Result 0.98 < MDA 3.13 > RDL 3 pCi/L

Technical Information

Recounts

Samples were re-eluted and recounted to verify sample results. The recounts are reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2243561

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573749001	MW-AP-03-2022Q1
573749002	MW-AP-03D-2022Q1
573749003	MW-AP-03D2-2022Q1
573749004	MW-AP-04-2022Q1
573749005	FBLK-WAT-CCR-AP-22104
573749006	MW-AP-05-2022Q1
573749007	MW-AP-09-2022Q1
573749008	MW-AP-09D-2022Q1
573749009	MW-AP-11D-2022Q1
573749010	MW-AP-11D2-2022Q1
573749011	MW-AP-12-2022Q1
573749012	FBLK-WAT-CCR-AP-22105

573749013	MW-AP-13-2022Q1
1205045974	Method Blank (MB)
1205045976	573749007(MW-AP-09-2022Q1) Sample Duplicate (DUP)
1205045978	Laboratory Control Sample (LCS)

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

Data Summary:

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

Certification Statement

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

GEL LABORATORIES LLC

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Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573749 GEL Work Order: 573749

The Qualifiers in this report are defined as follows:

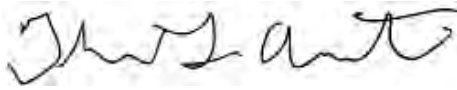
- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Theresa Austin

Date: 01 APR 2022

Title: Group Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03-2022Q1
Sample ID: 573749001
Matrix: GW
Collect Date: 17-MAR-22
Receive Date: 18-MAR-22
Collector: Client

Project: DMNN00101
Client ID: DMNN001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		5.82	+/-2.27	3.00	+/-2.70	3.00	pCi/L			JXC9	03/31/22	0910	2243881	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.56	+/-2.33		+/-2.77		pCi/L			NXL1	04/01/22	0945	2247024	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.75	+/-0.552	0.398	+/-0.624	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243881	42.9	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03D-2022Q1

Project: DMNN00101

Sample ID: 573749002

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.39	+/-1.15	1.45	+/-1.43	3.00	pCi/L			JXC9	03/28/22	0857	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		6.11	+/-1.32		+/-1.65		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.73	+/-0.657	0.487	+/-0.822	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	92.1	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03D2-2022Q1

Project: DMNN00101

Sample ID: 573749003

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.96	+/-1.07	1.58	+/-1.17	3.00	pCi/L			JXC9	03/28/22	0857	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.45	+/-1.19		+/-1.33		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.49	+/-0.517	0.500	+/-0.628	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	88.1	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-04-2022Q1

Project: DMNN00101

Sample ID: 573749004

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.76	+/-1.03	1.31	+/-1.24	3.00	pCi/L			JXC9	03/28/22	0857	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.69	+/-1.16		+/-1.39		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.93	+/-0.525	0.448	+/-0.621	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	92	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22104

Project: DMNN00101

Sample ID: 573749005

Client ID: DMNN001

Matrix: AQ

Collect Date: 16-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.392	+/-0.684	1.21	+/-0.691	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		0.678	+/-0.746		+/-0.754		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.286	+/-0.298	0.480	+/-0.302	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	85.7	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-05-2022Q1

Project: DMNN00101

Sample ID: 573749006

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.65	+/-0.934	1.37	+/-1.02	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.94	+/-1.11		+/-1.24		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.28	+/-0.599	0.498	+/-0.697	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	90.2	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-09-2022Q1

Project: DMNN00101

Sample ID: 573749007

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.57	+/-1.04	1.60	+/-1.11	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.77	+/-1.19		+/-1.32		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.20	+/-0.571	0.285	+/-0.704	1.00	pCi/L			LXP1	03/29/22	0819	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	83.3	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-09D-2022Q1

Project: DMNN00101

Sample ID: 573749008

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.428	+/-1.20	2.30	+/-1.20	3.00	pCi/L			JXC9	03/28/22	1013	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		8.04	+/-1.63		+/-2.01		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		8.04	+/-1.11	0.471	+/-1.61	1.00	pCi/L			LXP1	03/29/22	0851	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	86.2	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-11D-2022Q1

Project: DMNN00101

Sample ID: 573749009

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		4.52	+/-1.52	1.89	+/-1.89	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		6.84	+/-1.62		+/-2.05		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.32	+/-0.575	0.479	+/-0.786	1.00	pCi/L			LXP1	03/29/22	0851	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	66.2	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-11D2-2022Q1

Project: DMNN00101

Sample ID: 573749010

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.83	+/-1.45	1.88	+/-1.74	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		7.08	+/-1.63		+/-1.96		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.25	+/-0.750	0.461	+/-0.897	1.00	pCi/L			LXP1	03/29/22	0851	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	67.4	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-12-2022Q1

Project: DMNN00101

Sample ID: 573749011

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.64	+/-1.01	1.52	+/-1.09	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		6.93	+/-1.32		+/-1.60		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		5.28	+/-0.851	0.333	+/-1.17	1.00	pCi/L			LXP1	03/29/22	0851	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	83.3	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22105

Project: DMNN00101

Sample ID: 573749012

Client ID: DMNN001

Matrix: AQ

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.20	+/-1.15	1.65	+/-1.27	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.31	+/-1.19		+/-1.31		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.109	+/-0.312	0.590	+/-0.312	1.00	pCi/L			LXP1	03/29/22	0851	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	74.4	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 1, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-13-2022Q1

Project: DMNN00101

Sample ID: 573749013

Client ID: DMNN001

Matrix: GW

Collect Date: 17-MAR-22

Receive Date: 18-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.92	+/-1.30	2.04	+/-1.38	3.00	pCi/L			JXC9	03/28/22	0858	2243558	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.19	+/-1.38		+/-1.48		pCi/L		1	TON1	03/29/22	1549	2243875	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.27	+/-0.479	0.508	+/-0.534	1.00	pCi/L			LXP1	03/29/22	0851	2243561	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243558	83.9	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: April 1, 2022
Page 1 of 3

Client : Dominion Energy Services, Inc.
120 Tredegar Street

Contact: Richmond, Virginia 23219
Kelly Hicks

Workorder: 573749

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date Time
Rad Gas Flow									
Batch	2243558								
QC1205045912	MB								
Radium-228			U	1.68	pCi/L			JXC9	03/28/2210:12
				Uncert: +/-1.60					
				TPU: +/-1.66					
QC1205045913	573561001	DUP							
Radium-228		3.01		4.20	pCi/L				03/28/2210:12
				Uncert: +/-1.41		RPD: 33 (0% - 100%)			
				TPU: +/-1.60		RER: 0.919 (0-2)			
QC1205045914	573749009	DUP							
Radium-228		4.52		3.06	pCi/L				03/29/2210:41
				Uncert: +/-1.52		RPD: 39 (0% - 100%)			
				TPU: +/-1.89		RER: 1.18 (0-2)			
QC1205045915	LCS								
Radium-228		46.3		45.1	pCi/L	REC: 97.3 (80%-120%)			03/28/2208:57
				Uncert: +/-3.97					
				TPU: +/-12.0					
Batch	2243881								
QC1205046587	MB								
Radium-228			U	0.980	pCi/L			JXC9	03/31/2209:10
				Uncert: +/-1.79					
				TPU: +/-1.81					
QC1205046588	573749001	DUP							
Radium-228		5.82		3.04	pCi/L				03/31/2209:10
				Uncert: +/-2.27		RPD: 63 (0% - 100%)			
				TPU: +/-2.70		RER: 1.62 (0-2)			
QC1205046589	LCS								
Radium-228		46.2		44.6	pCi/L	REC: 96.5 (80%-120%)			03/31/2209:10
				Uncert: +/-5.14					
				TPU: +/-12.3					
Rad Ra-226									
Batch	2243561								
QC1205045974	MB								
Radium-226			U	0.140	pCi/L			LXP1	03/29/2208:51
				Uncert: +/-0.274					
				TPU: +/-0.275					
QC1205045976	573749007	DUP							
Radium-226		2.20		1.92	pCi/L				03/29/2209:23
				Uncert: +/-0.571		RPD: 14 (0%-20%)			
				TPU: +/-0.704		RER: 0.59 (0-2)			
QC1205045978	LCS								
Radium-226		26.4		26.5	pCi/L	REC: 100 (80%-120%)			
				Uncert: +/-1.83					
				TPU: +/-6.66					

Notes:

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QC Summary

Workorder: 573749

Page 2 of 3

Parname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date	Time
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TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- 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 See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N 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
- 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

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QC Summary

Workorder: 573749

Page 3 of 3

<u>Parmname</u>	<u>NOM</u>	<u>Sample</u>	<u>Qual</u>	<u>QC</u>	<u>Units</u>	<u>QC Criteria</u>	<u>Range</u>	<u>Analyst</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.

** Indicates analyte is a surrogate compound.

^ 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.

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.



March 31, 2022

Kelly Hicks
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219

Re: CCR Groundwater Monitoring - Level 1 Package
Work Order: 573869

Dear Kelly Hicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 21, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1648.

Sincerely,

Meredith Boddiford
Project Manager

Purchase Order: 50149867
Chain of Custody: 2021140
Enclosures



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Case Narrative

**Receipt Narrative
for
Dominion Energy (50149867)
SDG: 573869**

March 31, 2022

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 21, 2022 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
573869001	MW-AP-01-2022Q1
573869002	MW-AP-02-2022Q1
573869003	MW-AP-10-2022Q1

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

Meredith Boddiford

Meredith Boddiford
Project Manager

Chain of Custody and Supporting Documentation

Project # 416559 0005 0000 5.2
 GEL Quote # 20721146
 COC Number PO 50149867
 Client Name: Dominion Energy

Laboratories LLC
 Chemistry | Radiometry | Biochemistry | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Work Order Number: 200773
 GEL Project Manager: Taylor Cannon

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Project/Site Name: Waterce Station Ash Pond CCR 2022Q1
 Address: Waterce, South Carolina
 Collected By: B. Medlin / J. Bradley
 Send Results To: AReed@envstid.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm))	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radon/Isotopic (d)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (e)	Preservative Type (f)	Comments
MW-AP-10-2022Q1	3-18-22	1220	N	N	GW	N	Yes, please supply (e) Known or (f) possible Hazards	4	CL EL, SO4 - EPA TDS Total Metals (see list in comments) 903/1904.0		Note: extra sample is required for sample specific QC
MW-AP-11-2022Q1			N	N	GW	N					EPA 200.8 - Sb, As, Ba, Be B, Cd, Ca, Cr, Cu, Pb, U Mn, Se, Zn, Hg
MW-AP-12-2022Q1			N	N	GW	N					EPA 245.2 - Hg
MW-AP-13-2022Q1			N	N	GW	N					See attached work order for details

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	3-18-22	<i>[Signature]</i>	3-18-22	1800
<i>[Signature]</i>	3-21-22	<i>[Signature]</i>	3-21-22	1247

TIC Sample Storage 3-18-22 1800
Supposedly taken sample 1247

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number - Client Determined

2.) QC Codes: N = Neutral Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grav, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a "Y" for yes the sample was field filtered or "N" for no sample was not field filtered

4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, MI = Mine Effluent, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = N/A

5.) Sample Analysis Requested: Analytical method requested (e.g. 8160B, 6010B/470A) and number of containers provided for each (e.g. 8360B - 3, 6010B/470A - 1)

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, HX = Hexano, SF = Sodium Thiosulfate, FAV = Fluoride is added - leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

Characteristics Hazards	Listed Waste
FL = Flammable/ignitable CO = Corrosive RE = Reactive	FLW = Listed Waste (F, K, P and U-listed wastes) Waste code(s):
ISCA = Regulated PCB = Polychlorinated biphenyls	

SAMPLE RECEIPT & REVIEW FORM

Client: <u>DUNN</u>	SDG/AR/COC/Work Order: <u>573868 573869 573867MB</u>
Received By: <u>TYE</u>	Date Received: <u>3/21/22</u>
Carrier and Tracking Number	Circle Applicable: <input type="checkbox"/> FedEx Express <input type="checkbox"/> FedEx Ground <input type="checkbox"/> UPS <input type="checkbox"/> Field Services <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Other

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

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>1°C</u>
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>IR2-2D</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
				Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
				Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 3/24/22 Page 1 of 1

Laboratory Certifications

List of current GEL Certifications as of 31 March 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-21-19
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals Analysis

Case Narrative

**Metals
Technical Case Narrative
Dominion Energy
SDG #: 573869**

Product: Determination of Metals by ICP-MS

Analytical Method: EPA 200.8 SC_NPDES

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2243848

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: EPA 245.1/245.2

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2247198

Preparation Method: EPA 200.2

Preparation Procedure: GL-MA-E-016 REV# 18

Preparation Batch: 2243847

Preparation Method: EPA 245.1/245.2 Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2247196

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573869001	MW-AP-01-2022Q1
573869002	MW-AP-02-2022Q1
573869003	MW-AP-10-2022Q1
1205046544	Method Blank (MB)ICP-MS
1205046545	Laboratory Control Sample (LCS)
1205046548	573869001(MW-AP-01-2022Q1L) Serial Dilution (SD)
1205046546	573869001(MW-AP-01-2022Q1D) Sample Duplicate (DUP)
1205046547	573869001(MW-AP-01-2022Q1S) Matrix Spike (MS)
1205053311	Method Blank (MB)CVAA
1205053312	Laboratory Control Sample (LCS)
1205053321	573749001(MW-AP-03-2022Q1L) Serial Dilution (SD)
1205053319	573749001(MW-AP-03-2022Q1D) Sample Duplicate (DUP)
1205053320	573749001(MW-AP-03-2022Q1S) Matrix Spike (MS)
1205053322	573749001(MW-AP-03-2022Q1PS) Post Spike (PS)

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

Data Summary:

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

Calibration Information

CRDL/PQL Requirements

The initial CRDL standard recoveries for EPA 200.8/SW846 6020 met the advisory control limits with the exception of boron. The methods do not require qualifying the data, only narrating the recoveries outside the criteria. ICP-MS.

ICSA/ICSAB Statement

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

Quality Control (QC) Information**Matrix Spike (MS/MSD) Recovery Statement**

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205053320 (MW-AP-03-2022Q1MS)	Mercury	56.7* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205053322 (MW-AP-03-2022Q1PS)	Mercury	57.4* (80%-120%)

Technical Information**Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 573869001 (MW-AP-01-2022Q1), 573869002 (MW-AP-02-2022Q1) and 573869003 (MW-AP-10-2022Q1)-ICP-MS were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	573869		
	001	002	003
Boron	20X	10X	10X
Calcium	5X	5X	1X

Miscellaneous Information**Additional Comments**

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573869 GEL Work Order: 573869

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Edmund Frampton

Date: 04 APR 2022

Title: Group Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573869

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:573869001

BASIS: As Received

DATE COLLECTED 18-MAR-22

CLIENT ID: MW-AP-01-2022Q1

LEVEL: Low

DATE RECEIVED 21-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-39-3	Barium	240	ug/L		0.500	2.00	2.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-42-8	Boron	2250	ug/L		80.0	300	300	20	MS	SKJ	04/04/22 14:33	220404-2	2243848
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-70-2	Calcium	73000	ug/L		150	500	500	5	MS	SKJ	04/04/22 15:12	220404-2	2243848
7440-47-3	Chromium	36.5	ug/L		1.00	3.00	3.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-48-4	Cobalt	0.397	ug/L	J	0.100	1.00	1.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 11:10	033122W1-3	2247198
7439-98-7	Molybdenum	2.96	ug/L		0.167	0.500	0.500	1	MS	BAJ	04/01/22 13:36	220401-1	2243848
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	04/04/22 15:45	220404-2	2243848
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	04/04/22 15:45	220404-2	2243848

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243848	2243847	EPA 200.2	50	mL	50	mL	03/22/22	LG2
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573869

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 573869002

BASIS: As Received

DATE COLLECTED 18-MAR-22

CLIENT ID: MW-AP-02-2022Q1

LEVEL: Low

DATE RECEIVED 21-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-38-2	Arsenic	103	ug/L		1.66	5.00	5.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-39-3	Barium	223	ug/L		0.500	2.00	2.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-42-8	Boron	1130	ug/L		40.0	150	150	10	MS	SKJ	04/04/22 14:51	220404-2	2243848
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-70-2	Calcium	63700	ug/L		150	500	500	5	MS	SKJ	04/04/22 15:24	220404-2	2243848
7440-47-3	Chromium	5.51	ug/L		1.00	3.00	3.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-48-4	Cobalt	0.320	ug/L	J	0.100	1.00	1.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7439-93-2	Lithium	9.94	ug/L	J	2.00	10.0	10.0	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 11:11	033122W1-3	2247198
7439-98-7	Molybdenum	8.69	ug/L		0.167	0.500	0.500	1	MS	BAJ	04/01/22 13:46	220401-1	2243848
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	04/04/22 15:58	220404-2	2243848
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	04/04/22 15:58	220404-2	2243848

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243848	2243847	EPA 200.2	50	mL	50	mL	03/22/22	LG2
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 573869

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 573869003

BASIS: As Received

DATE COLLECTED 18-MAR-22

CLIENT ID: MW-AP-10-2022Q1

LEVEL: Low

DATE RECEIVED 21-MAR-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-38-2	Arsenic	235	ug/L		1.66	5.00	5.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-39-3	Barium	148	ug/L		0.500	2.00	2.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-42-8	Boron	1520	ug/L		40.0	150	150	10	MS	SKJ	04/04/22 14:54	220404-2	2243848
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-70-2	Calcium	46700	ug/L		30.0	100	100	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-47-3	Chromium	8.03	ug/L		1.00	3.00	3.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-48-4	Cobalt	1.82	ug/L		0.100	1.00	1.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7439-93-2	Lithium	57.9	ug/L		2.00	10.0	10.0	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	AXS5	03/31/22 11:13	033122W1-3	2247198
7439-98-7	Molybdenum	24.4	ug/L		0.167	0.500	0.500	1	MS	BAJ	04/01/22 13:47	220401-1	2243848
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	04/04/22 15:27	220404-2	2243848
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	04/04/22 15:27	220404-2	2243848

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2243848	2243847	EPA 200.2	50	mL	50	mL	03/22/22	LG2
2247198	2247196	EPA 245.1/245.2 Prep	20	mL	20	mL	03/30/22	AXS5

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	95.0 – 105.0	AV	31-MAR-22 09:52	033122W1-3
	Molybdenum	49.7	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	01-APR-22 12:40	220401-1
	Antimony	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Arsenic	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Barium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Beryllium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Boron	109	ug/L	100	ug/L	108.7	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Cadmium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Calcium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Chromium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Cobalt	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Lead	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Lithium	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Selenium	47.4	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	04-APR-22 13:57	220404-2
CCV01										
	Mercury	4.98	ug/L	5	ug/L	99.5	90.0 – 110.0	AV	31-MAR-22 09:57	033122W1-3
	Molybdenum	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	01-APR-22 12:48	220401-1
	Antimony	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Arsenic	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Barium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Beryllium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Boron	97.4	ug/L	100	ug/L	97.4	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Cadmium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Calcium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Chromium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Cobalt	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Lead	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Lithium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Selenium	47.5	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	04-APR-22 14:12	220404-2
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	04-APR-22 14:12	220404-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV02										
	Mercury	4.91	ug/L	5	ug/L	98.2	90.0 – 110.0	AV	31-MAR-22 10:16	033122W1-3
	Molybdenum	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	01-APR-22 12:53	220401-1
	Antimony	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Arsenic	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Barium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Beryllium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Boron	98.4	ug/L	100	ug/L	98.4	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Cadmium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Chromium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Cobalt	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Lead	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Lithium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Selenium	46.6	ug/L	50	ug/L	93.3	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
	Thallium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	04-APR-22 14:21	220404-2
CCV03										
	Mercury	4.88	ug/L	5	ug/L	97.6	90.0 – 110.0	AV	31-MAR-22 11:06	033122W1-3
	Molybdenum	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	01-APR-22 13:26	220401-1
	Antimony	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Arsenic	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Barium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Beryllium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Boron	105	ug/L	100	ug/L	105.3	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Cadmium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Chromium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Cobalt	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Lead	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Lithium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Selenium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	04-APR-22 14:45	220404-2
	Thallium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	04-APR-22 14:45	220404-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV04										
	Mercury	4.91	ug/L	5	ug/L	98.2	90.0 – 110.0	AV	31-MAR-22 11:17	033122W1-3
	Molybdenum	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	01-APR-22 13:42	220401-1
	Antimony	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Arsenic	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Barium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Beryllium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Boron	101	ug/L	100	ug/L	101.3	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Cadmium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Chromium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Cobalt	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Lead	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Lithium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Selenium	47.3	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
	Thallium	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	04-APR-22 15:06	220404-2
CCV05										
	Molybdenum	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	01-APR-22 13:54	220401-1
	Antimony	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Arsenic	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Barium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Beryllium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Boron	113	ug/L	100	ug/L	113.4	90.0 – 110.0 *	MS	04-APR-22 15:39	220404-2
	Cadmium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Chromium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Cobalt	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Lead	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Lithium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Selenium	46.5	ug/L	50	ug/L	93	90.0 – 110.0	MS	04-APR-22 15:39	220404-2
	Thallium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	04-APR-22 15:39	220404-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV06	Antimony	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Barium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Beryllium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Boron	141	ug/L	100	ug/L	140.8	90.0 – 110.0 *	MS	04-APR-22 16:10	220404-2
	Cadmium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Calcium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Chromium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Cobalt	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Lead	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Lithium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Selenium	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	04-APR-22 16:10	220404-2
	Thallium	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	04-APR-22 16:10	220404-2

*Analytical Methods:

MS EPA 200.8 SC_NPDES

AV EPA 245.1/245.2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.183	ug/L	.2	ug/L	91.5	70.0 – 130.0	AV	31-MAR-22 09:55	033122W1-3
	Molybdenum	.992	ug/L	1	ug/L	99.2	70.0 – 130.0	MS	01-APR-22 12:43	220401-1
	Antimony	2.98	ug/L	3	ug/L	99.3	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Arsenic	4.85	ug/L	5	ug/L	97.1	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Barium	4.19	ug/L	4	ug/L	104.6	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Beryllium	.495	ug/L	.5	ug/L	99	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Boron	17.7	ug/L	15	ug/L	118.2	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Cadmium	.986	ug/L	1	ug/L	98.6	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Calcium	225	ug/L	200	ug/L	112.3	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Chromium	10	ug/L	10	ug/L	100.4	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Cobalt	1	ug/L	1	ug/L	100	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Lead	2.07	ug/L	2	ug/L	103.3	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Lithium	9.99	ug/L	10	ug/L	99.9	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Selenium	5.35	ug/L	5	ug/L	107	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
	Thallium	1.87	ug/L	2	ug/L	93.7	70.0 – 130.0	MS	04-APR-22 14:03	220404-2
CRDL02										
	Mercury	.169	ug/L	.2	ug/L	84.5	70.0 – 130.0	AV	31-MAR-22 10:56	033122W1-3
	Molybdenum	1.01	ug/L	1	ug/L	100.9	70.0 – 130.0	MS	01-APR-22 13:21	220401-1
	Antimony	2.9	ug/L	3	ug/L	96.7	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Arsenic	4.82	ug/L	5	ug/L	96.5	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Barium	3.93	ug/L	4	ug/L	98.4	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Beryllium	.52	ug/L	.5	ug/L	104	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Boron	23.9	ug/L	15	ug/L	159.5	70.0 – 130.0 *	MS	04-APR-22 14:57	220404-2
	Cadmium	1.04	ug/L	1	ug/L	103.7	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Calcium	232	ug/L	200	ug/L	116	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Chromium	10.2	ug/L	10	ug/L	102	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Cobalt	1.05	ug/L	1	ug/L	105	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Lead	2.03	ug/L	2	ug/L	101.3	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Lithium	9.74	ug/L	10	ug/L	97.4	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Selenium	5.02	ug/L	5	ug/L	100.3	70.0 – 130.0	MS	04-APR-22 14:57	220404-2
	Thallium	1.84	ug/L	2	ug/L	91.9	70.0 – 130.0	MS	04-APR-22 14:57	220404-2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL03										
	Mercury	.172	ug/L	.2	ug/L	86	70.0 – 130.0	AV	31-MAR-22 11:04	033122W1-3
	Molybdenum	.981	ug/L	1	ug/L	98.1	70.0 – 130.0	MS	01-APR-22 13:49	220401-1
	Antimony	2.91	ug/L	3	ug/L	96.9	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Arsenic	4.91	ug/L	5	ug/L	98.1	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Barium	4.13	ug/L	4	ug/L	103.2	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Beryllium	.5	ug/L	.5	ug/L	100	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Boron	87.6	ug/L	15	ug/L	583.7	70.0 – 130.0 *	MS	04-APR-22 15:30	220404-2
	Cadmium	1.05	ug/L	1	ug/L	104.9	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Calcium	219	ug/L	200	ug/L	109.6	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Chromium	10.3	ug/L	10	ug/L	102.7	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Cobalt	1.01	ug/L	1	ug/L	100.5	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Lead	2.08	ug/L	2	ug/L	104.2	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Lithium	9.97	ug/L	10	ug/L	99.7	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Selenium	5.56	ug/L	5	ug/L	111.3	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
	Thallium	1.84	ug/L	2	ug/L	91.8	70.0 – 130.0	MS	04-APR-22 15:30	220404-2
CRDL04										
	Mercury	.171	ug/L	.2	ug/L	85.5	70.0 – 130.0	AV	31-MAR-22 11:15	033122W1-3
	Antimony	2.92	ug/L	3	ug/L	97.4	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Arsenic	4.91	ug/L	5	ug/L	98.2	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Barium	4.12	ug/L	4	ug/L	103.1	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Beryllium	.522	ug/L	.5	ug/L	104.4	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Boron	143	ug/L	15	ug/L	955.6	70.0 – 130.0 *	MS	04-APR-22 16:01	220404-2
	Cadmium	.981	ug/L	1	ug/L	98.1	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Calcium	228	ug/L	200	ug/L	114	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Chromium	10.2	ug/L	10	ug/L	102.1	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Cobalt	1.04	ug/L	1	ug/L	103.9	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Lead	2.07	ug/L	2	ug/L	103.6	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Lithium	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Selenium	5.51	ug/L	5	ug/L	110.1	70.0 – 130.0	MS	04-APR-22 16:01	220404-2
	Thallium	1.83	ug/L	2	ug/L	91.6	70.0 – 130.0	MS	04-APR-22 16:01	220404-2

*Analytical Methods:

MS

EPA 200.8 SC_NPDES

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS11,ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
AV	EPA 245.1/245.2									

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	31-MAR-22 09:54	033122W1-3
	Molybdenum	0.167	+/- .25	U	0.167	0.5	LIQ	MS	01-APR-22 12:42	220401-1
	Antimony	0.6	+/- 1	U	0.6	2.0	LIQ	MS	04-APR-22 14:00	220404-2
	Arsenic	1.66	+/- 2.5	U	1.66	5.0	LIQ	MS	04-APR-22 14:00	220404-2
	Barium	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 14:00	220404-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	04-APR-22 14:00	220404-2
	Boron	6.92	+/- 7.5	B	4.0	15.0	LIQ	MS	04-APR-22 14:00	220404-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	04-APR-22 14:00	220404-2
	Calcium	30.0	+/- 50	U	30.0	100	LIQ	MS	04-APR-22 14:00	220404-2
	Chromium	1.0	+/- 1.5	U	1.0	3.0	LIQ	MS	04-APR-22 14:00	220404-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	04-APR-22 14:00	220404-2
	Lead	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 14:00	220404-2
	Lithium	2.0	+/- 5	U	2.0	10.0	LIQ	MS	04-APR-22 14:00	220404-2
	Selenium	1.5	+/- 2.5	U	1.5	5.0	LIQ	MS	04-APR-22 14:00	220404-2
	Thallium	0.125	+/- .25	U	0.125	0.5	LIQ	MS	04-APR-22 14:00	220404-2
CCB01										
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	31-MAR-22 09:59	033122W1-3
	Molybdenum	0.238	+/- .25	B	0.167	0.5	LIQ	MS	01-APR-22 12:50	220401-1
	Antimony	0.6	+/- 1	U	0.6	2.0	LIQ	MS	04-APR-22 14:15	220404-2
	Arsenic	1.66	+/- 2.5	U	1.66	5.0	LIQ	MS	04-APR-22 14:15	220404-2
	Barium	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 14:15	220404-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	04-APR-22 14:15	220404-2
	Boron	4.0	+/- 7.5	U	4.0	15.0	LIQ	MS	04-APR-22 14:15	220404-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	04-APR-22 14:15	220404-2
	Calcium	30.0	+/- 50	U	30.0	100	LIQ	MS	04-APR-22 14:15	220404-2
	Chromium	1.0	+/- 1.5	U	1.0	3.0	LIQ	MS	04-APR-22 14:15	220404-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	04-APR-22 14:15	220404-2
	Lead	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 14:15	220404-2
	Lithium	2.0	+/- 5	U	2.0	10.0	LIQ	MS	04-APR-22 14:15	220404-2
	Selenium	1.5	+/- 2.5	U	1.5	5.0	LIQ	MS	04-APR-22 14:15	220404-2
	Thallium	0.125	+/- .25	U	0.125	0.5	LIQ	MS	04-APR-22 14:15	220404-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB02										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	31-MAR-22 10:18	033122W1-3
	Molybdenum	0.167	+/-25	U	0.167	0.5	LIQ	MS	01-APR-22 12:55	220401-1
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	04-APR-22 14:24	220404-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	04-APR-22 14:24	220404-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	04-APR-22 14:24	220404-2
	Beryllium	0.2	+/-25	U	0.2	0.5	LIQ	MS	04-APR-22 14:24	220404-2
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	04-APR-22 14:24	220404-2
	Cadmium	0.03	+/-05	U	0.03	0.1	LIQ	MS	04-APR-22 14:24	220404-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	04-APR-22 14:24	220404-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	04-APR-22 14:24	220404-2
	Cobalt	0.1	+/-5	U	0.1	1.0	LIQ	MS	04-APR-22 14:24	220404-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	04-APR-22 14:24	220404-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	04-APR-22 14:24	220404-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	04-APR-22 14:24	220404-2
	Thallium	0.125	+/-25	U	0.125	0.5	LIQ	MS	04-APR-22 14:24	220404-2
CCB03										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	31-MAR-22 11:08	033122W1-3
	Molybdenum	0.236	+/-25	B	0.167	0.5	LIQ	MS	01-APR-22 13:28	220401-1
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	04-APR-22 14:48	220404-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	04-APR-22 14:48	220404-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	04-APR-22 14:48	220404-2
	Beryllium	0.2	+/-25	U	0.2	0.5	LIQ	MS	04-APR-22 14:48	220404-2
	Boron	5.89	+/-7.5	B	4.0	15.0	LIQ	MS	04-APR-22 14:48	220404-2
	Cadmium	0.03	+/-05	U	0.03	0.1	LIQ	MS	04-APR-22 14:48	220404-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	04-APR-22 14:48	220404-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	04-APR-22 14:48	220404-2
	Cobalt	0.1	+/-5	U	0.1	1.0	LIQ	MS	04-APR-22 14:48	220404-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	04-APR-22 14:48	220404-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	04-APR-22 14:48	220404-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	04-APR-22 14:48	220404-2
	Thallium	0.125	+/-25	U	0.125	0.5	LIQ	MS	04-APR-22 14:48	220404-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB04										
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	31-MAR-22 11:19	033122W1-3
	Molybdenum	0.167	+/- .25	U	0.167	0.5	LIQ	MS	01-APR-22 13:44	220401-1
	Antimony	0.6	+/- 1	U	0.6	2.0	LIQ	MS	04-APR-22 15:09	220404-2
	Arsenic	1.66	+/- 2.5	U	1.66	5.0	LIQ	MS	04-APR-22 15:09	220404-2
	Barium	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 15:09	220404-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	04-APR-22 15:09	220404-2
	Boron	4.0	+/- 7.5	U	4.0	15.0	LIQ	MS	04-APR-22 15:09	220404-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	04-APR-22 15:09	220404-2
	Calcium	30.0	+/- 50	U	30.0	100	LIQ	MS	04-APR-22 15:09	220404-2
	Chromium	1.0	+/- 1.5	U	1.0	3.0	LIQ	MS	04-APR-22 15:09	220404-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	04-APR-22 15:09	220404-2
	Lead	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 15:09	220404-2
	Lithium	2.0	+/- 5	U	2.0	10.0	LIQ	MS	04-APR-22 15:09	220404-2
	Selenium	1.5	+/- 2.5	U	1.5	5.0	LIQ	MS	04-APR-22 15:09	220404-2
	Thallium	0.125	+/- .25	U	0.125	0.5	LIQ	MS	04-APR-22 15:09	220404-2
CCB05										
	Molybdenum	0.217	+/- .25	B	0.167	0.5	LIQ	MS	01-APR-22 13:56	220401-1
	Antimony	0.6	+/- 1	U	0.6	2.0	LIQ	MS	04-APR-22 15:42	220404-2
	Arsenic	1.66	+/- 2.5	U	1.66	5.0	LIQ	MS	04-APR-22 15:42	220404-2
	Barium	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 15:42	220404-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	04-APR-22 15:42	220404-2
	Boron	18.77	+/- 7.5		4.0	15.0	LIQ	MS	04-APR-22 15:42	220404-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	04-APR-22 15:42	220404-2
	Calcium	30.0	+/- 50	U	30.0	100	LIQ	MS	04-APR-22 15:42	220404-2
	Chromium	1.0	+/- 1.5	U	1.0	3.0	LIQ	MS	04-APR-22 15:42	220404-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	04-APR-22 15:42	220404-2
	Lead	0.5	+/- 1	U	0.5	2.0	LIQ	MS	04-APR-22 15:42	220404-2
	Lithium	2.0	+/- 5	U	2.0	10.0	LIQ	MS	04-APR-22 15:42	220404-2
	Selenium	1.5	+/- 2.5	U	1.5	5.0	LIQ	MS	04-APR-22 15:42	220404-2
	Thallium	0.125	+/- .25	U	0.125	0.5	LIQ	MS	04-APR-22 15:42	220404-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB06	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	04-APR-22 16:13	220404-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	04-APR-22 16:13	220404-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	04-APR-22 16:13	220404-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	04-APR-22 16:13	220404-2
	Boron	42.04	+/-7.5		4.0	15.0	LIQ	MS	04-APR-22 16:13	220404-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	04-APR-22 16:13	220404-2
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	04-APR-22 16:13	220404-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	04-APR-22 16:13	220404-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	04-APR-22 16:13	220404-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	04-APR-22 16:13	220404-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	04-APR-22 16:13	220404-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	04-APR-22 16:13	220404-2
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	04-APR-22 16:13	220404-2

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 573869
Contract: DMNN00101
Matrix: GW

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205046544	Antimony	0.600	ug/L	+/-1	U	MS	0.600	2.00
	Arsenic	1.66	ug/L	+/-2.5	U	MS	1.66	5.00
	Barium	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Beryllium	0.200	ug/L	+/-0.25	U	MS	0.200	0.500
	Boron	4.00	ug/L	+/-7.5	U	MS	4.00	15.0
	Cadmium	0.0300	ug/L	+/-0.05	U	MS	0.0300	0.100
	Calcium	30.0	ug/L	+/-50	U	MS	30.0	100
	Chromium	1.00	ug/L	+/-1.5	U	MS	1.00	3.00
	Cobalt	0.100	ug/L	+/-0.5	U	MS	0.100	1.00
	Lead	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Lithium	2.00	ug/L	+/-5	U	MS	2.00	10.0
	Molybdenum	0.167	ug/L	+/-0.25	U	MS	0.167	0.500
	Selenium	1.50	ug/L	+/-2.5	U	MS	1.50	5.00
	Thallium	0.125	ug/L	+/-0.25	U	MS	0.125	0.500
1205053311	Mercury	0.0670	ug/L	+/-0.1	U	AV	0.0670	0.200

*Analytical Methods:

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-4-
Interference Check Sample

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS12

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Molybdenum	2060	ug/L	2000	ug/L	103	80.0 – 120.0	01-APR-22 12:45	220401-1
ICSAB01	Molybdenum	2040	ug/L	2000	ug/L	102	80.0 – 120.0	01-APR-22 12:47	220401-1
ICSA02	Molybdenum	2040	ug/L	2000	ug/L	102	80.0 – 120.0	01-APR-22 13:23	220401-1
ICSAB02	Molybdenum	2050	ug/L	2000	ug/L	103	80.0 – 120.0	01-APR-22 13:24	220401-1
ICSA03	Molybdenum	2020	ug/L	2000	ug/L	101	80.0 – 120.0	01-APR-22 13:51	220401-1
ICSAB03	Molybdenum	2050	ug/L	2000	ug/L	103	80.0 – 120.0	01-APR-22 13:52	220401-1

METALS
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Interference Check Sample

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS11

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.133	ug/L					04-APR-22 14:06	220404-2
	Arsenic	0.095	ug/L					04-APR-22 14:06	220404-2
	Barium	0.261	ug/L					04-APR-22 14:06	220404-2
	Beryllium	-0.003	ug/L					04-APR-22 14:06	220404-2
	Boron	4.29	ug/L					04-APR-22 14:06	220404-2
	Cadmium	0.425	ug/L					04-APR-22 14:06	220404-2
	Calcium	99300	ug/L	100000	ug/L	99.4	80.0 - 120.0	04-APR-22 14:06	220404-2
	Chromium	0.767	ug/L					04-APR-22 14:06	220404-2
	Cobalt	0.93	ug/L					04-APR-22 14:06	220404-2
	Lead	0.478	ug/L					04-APR-22 14:06	220404-2
	Lithium	0.012	ug/L					04-APR-22 14:06	220404-2
	Selenium	0.674	ug/L					04-APR-22 14:06	220404-2
	Thallium	-0.011	ug/L					04-APR-22 14:06	220404-2
IC SAB01									
	Antimony	19.6	ug/L	20	ug/L	98.2	80.0 - 120.0	04-APR-22 14:09	220404-2
	Arsenic	19.0	ug/L	20	ug/L	94.9	80.0 - 120.0	04-APR-22 14:09	220404-2
	Barium	21.5	ug/L	20	ug/L	107	80.0 - 120.0	04-APR-22 14:09	220404-2
	Beryllium	19.4	ug/L	20	ug/L	97.1	80.0 - 120.0	04-APR-22 14:09	220404-2
	Boron	23.5	ug/L	20	ug/L	117	80.0 - 120.0	04-APR-22 14:09	220404-2
	Cadmium	19.0	ug/L	20.83	ug/L	91.1	80.0 - 120.0	04-APR-22 14:09	220404-2
	Calcium	99600	ug/L	100000	ug/L	99.6	80.0 - 120.0	04-APR-22 14:09	220404-2
	Chromium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	04-APR-22 14:09	220404-2
	Cobalt	21.4	ug/L	21.05	ug/L	101	80.0 - 120.0	04-APR-22 14:09	220404-2
	Lead	20.9	ug/L	20	ug/L	104	80.0 - 120.0	04-APR-22 14:09	220404-2
	Lithium	21.3	ug/L	20	ug/L	106	80.0 - 120.0	04-APR-22 14:09	220404-2
	Selenium	17.8	ug/L	20	ug/L	88.7	80.0 - 120.0	04-APR-22 14:09	220404-2
	Thallium	20.0	ug/L	20	ug/L	100	80.0 - 120.0	04-APR-22 14:09	220404-2
ICSA02									
	Antimony	0.129	ug/L					04-APR-22 15:00	220404-2
	Arsenic	0.052	ug/L					04-APR-22 15:00	220404-2

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Interference Check Sample

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Barium	0.225	ug/L					04-APR-22 15:00	220404-2
	Beryllium	0.004	ug/L					04-APR-22 15:00	220404-2
	Boron	7.87	ug/L					04-APR-22 15:00	220404-2
	Cadmium	0.501	ug/L					04-APR-22 15:00	220404-2
	Calcium	99200	ug/L	100000	ug/L	99.2	80.0 - 120.0	04-APR-22 15:00	220404-2
	Chromium	0.725	ug/L					04-APR-22 15:00	220404-2
	Cobalt	0.972	ug/L					04-APR-22 15:00	220404-2
	Lead	0.481	ug/L					04-APR-22 15:00	220404-2
	Lithium	0.019	ug/L					04-APR-22 15:00	220404-2
	Selenium	0.522	ug/L					04-APR-22 15:00	220404-2
	Thallium	-0.024	ug/L					04-APR-22 15:00	220404-2
ICSAB02									
	Antimony	19.6	ug/L	20	ug/L	97.8	80.0 - 120.0	04-APR-22 15:03	220404-2
	Arsenic	18.3	ug/L	20	ug/L	91.6	80.0 - 120.0	04-APR-22 15:03	220404-2
	Barium	21.4	ug/L	20	ug/L	107	80.0 - 120.0	04-APR-22 15:03	220404-2
	Beryllium	18.0	ug/L	20	ug/L	90.2	80.0 - 120.0	04-APR-22 15:03	220404-2
	Boron	23.4	ug/L	20	ug/L	117	80.0 - 120.0	04-APR-22 15:03	220404-2
	Cadmium	19.2	ug/L	20.83	ug/L	92.3	80.0 - 120.0	04-APR-22 15:03	220404-2
	Calcium	98000	ug/L	100000	ug/L	98	80.0 - 120.0	04-APR-22 15:03	220404-2
	Chromium	21.6	ug/L	20	ug/L	108	80.0 - 120.0	04-APR-22 15:03	220404-2
	Cobalt	20.8	ug/L	21.05	ug/L	98.9	80.0 - 120.0	04-APR-22 15:03	220404-2
	Lead	20.8	ug/L	20	ug/L	104	80.0 - 120.0	04-APR-22 15:03	220404-2
	Lithium	19.7	ug/L	20	ug/L	98.4	80.0 - 120.0	04-APR-22 15:03	220404-2
	Selenium	17.3	ug/L	20	ug/L	86.5	80.0 - 120.0	04-APR-22 15:03	220404-2
	Thallium	19.9	ug/L	20	ug/L	99.7	80.0 - 120.0	04-APR-22 15:03	220404-2
ICSA03									
	Antimony	0.11	ug/L					04-APR-22 15:33	220404-2
	Arsenic	-0.053	ug/L					04-APR-22 15:33	220404-2
	Barium	0.267	ug/L					04-APR-22 15:33	220404-2
	Beryllium	0.038	ug/L					04-APR-22 15:33	220404-2

METALS

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Interference Check Sample

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Boron	42.4	ug/L					04-APR-22 15:33	220404-2
	Cadmium	0.405	ug/L					04-APR-22 15:33	220404-2
	Calcium	99900	ug/L	100000	ug/L	99.9	80.0 - 120.0	04-APR-22 15:33	220404-2
	Chromium	0.785	ug/L					04-APR-22 15:33	220404-2
	Cobalt	0.98	ug/L					04-APR-22 15:33	220404-2
	Lead	0.469	ug/L					04-APR-22 15:33	220404-2
	Lithium	0.035	ug/L					04-APR-22 15:33	220404-2
	Selenium	0.884	ug/L					04-APR-22 15:33	220404-2
	Thallium	-0.036	ug/L					04-APR-22 15:33	220404-2
ICSAB03									
	Antimony	19.6	ug/L	20	ug/L	97.8	80.0 - 120.0	04-APR-22 15:36	220404-2
	Arsenic	18.8	ug/L	20	ug/L	94	80.0 - 120.0	04-APR-22 15:36	220404-2
	Barium	21.6	ug/L	20	ug/L	108	80.0 - 120.0	04-APR-22 15:36	220404-2
	Beryllium	18.8	ug/L	20	ug/L	93.8	80.0 - 120.0	04-APR-22 15:36	220404-2
	Boron	50.2	ug/L	20	ug/L	251	80.0 - 120.0	04-APR-22 15:36	220404-2
	Cadmium	19.4	ug/L	20.83	ug/L	92.9	80.0 - 120.0	04-APR-22 15:36	220404-2
	Calcium	99600	ug/L	100000	ug/L	99.6	80.0 - 120.0	04-APR-22 15:36	220404-2
	Chromium	21.9	ug/L	20	ug/L	110	80.0 - 120.0	04-APR-22 15:36	220404-2
	Cobalt	21.4	ug/L	21.05	ug/L	102	80.0 - 120.0	04-APR-22 15:36	220404-2
	Lead	20.9	ug/L	20	ug/L	105	80.0 - 120.0	04-APR-22 15:36	220404-2
	Lithium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	04-APR-22 15:36	220404-2
	Selenium	17.0	ug/L	20	ug/L	84.8	80.0 - 120.0	04-APR-22 15:36	220404-2
	Thallium	19.8	ug/L	20	ug/L	99.1	80.0 - 120.0	04-APR-22 15:36	220404-2
ICSA04									
	Antimony	0.123	ug/L					04-APR-22 16:04	220404-2
	Arsenic	-0.199	ug/L					04-APR-22 16:04	220404-2
	Barium	0.341	ug/L					04-APR-22 16:04	220404-2
	Beryllium	0.015	ug/L					04-APR-22 16:04	220404-2
	Boron	89.2	ug/L					04-APR-22 16:04	220404-2
	Cadmium	0.431	ug/L					04-APR-22 16:04	220404-2

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Interference Check Sample

SDG No: 573869

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Calcium	100000	ug/L	100000	ug/L	100	80.0 – 120.0	04-APR-22 16:04	220404-2
	Chromium	0.777	ug/L					04-APR-22 16:04	220404-2
	Cobalt	0.99	ug/L					04-APR-22 16:04	220404-2
	Lead	0.484	ug/L					04-APR-22 16:04	220404-2
	Lithium	0.046	ug/L					04-APR-22 16:04	220404-2
	Selenium	0.013	ug/L					04-APR-22 16:04	220404-2
	Thallium	-0.031	ug/L					04-APR-22 16:04	220404-2
ICSAB04									
	Antimony	19.6	ug/L	20	ug/L	98.1	80.0 – 120.0	04-APR-22 16:07	220404-2
	Arsenic	18.3	ug/L	20	ug/L	91.7	80.0 – 120.0	04-APR-22 16:07	220404-2
	Barium	21.5	ug/L	20	ug/L	107	80.0 – 120.0	04-APR-22 16:07	220404-2
	Beryllium	18.5	ug/L	20	ug/L	92.4	80.0 – 120.0	04-APR-22 16:07	220404-2
	Boron	82.2	ug/L	20	ug/L	411	80.0 – 120.0	04-APR-22 16:07	220404-2
	Cadmium	19.4	ug/L	20.83	ug/L	92.9	80.0 – 120.0	04-APR-22 16:07	220404-2
	Calcium	98700	ug/L	100000	ug/L	98.7	80.0 – 120.0	04-APR-22 16:07	220404-2
	Chromium	21.2	ug/L	20	ug/L	106	80.0 – 120.0	04-APR-22 16:07	220404-2
	Cobalt	21.3	ug/L	21.05	ug/L	101	80.0 – 120.0	04-APR-22 16:07	220404-2
	Lead	20.9	ug/L	20	ug/L	105	80.0 – 120.0	04-APR-22 16:07	220404-2
	Lithium	20.0	ug/L	20	ug/L	100	80.0 – 120.0	04-APR-22 16:07	220404-2
	Selenium	17.3	ug/L	20	ug/L	86.4	80.0 – 120.0	04-APR-22 16:07	220404-2
	Thallium	19.9	ug/L	20	ug/L	99.2	80.0 – 120.0	04-APR-22 16:07	220404-2

METALS

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Matrix Spike Summary

SDG NO. 573869 Client ID: MW-AP-01-2022Q1S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 573869001 Spike ID: 1205046547

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Thallium	ug/L	75-125	51.8		0.125	U	50.0	104		MS
Antimony	ug/L	75-125	54.4		0.600	U	50.0	109		MS
Arsenic	ug/L	75-125	53.3		1.66	U	50.0	107		MS
Barium	ug/L		295		240		50.0	111	N/A	MS
Beryllium	ug/L	75-125	54.0		0.200	U	50.0	108		MS
Boron	ug/L		2440		2250		100	193	N/A	MS
Cadmium	ug/L	75-125	52.6		0.0300	U	50.0	105		MS
Calcium	ug/L		73400		73000		2000	17.3	N/A	MS
Chromium	ug/L	75-125	91.6		36.5		50.0	110		MS
Cobalt	ug/L	75-125	53.8		0.397	B	50.0	107		MS
Lead	ug/L	75-125	52.9		0.500	U	50.0	105		MS
Lithium	ug/L	75-125	53.5		2.00	U	50.0	107		MS
Molybdenum	ug/L	75-125	55.7		2.96		50.0	105		MS
Selenium	ug/L	75-125	50.0		1.50	U	50.0	99.3		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Matrix Spike Summary

SDG NO. 573869 Client ID: MW-AP-03-2022Q1S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 573749001 Spike ID: 1205053320

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	75-125	1.13		0.0670	U	2.00	56.7	N	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

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Spike Summary

SDG NO. 573869 Client ID: MW-AP-03-2022Q1PS

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 573749001 Spike ID: 1205053322

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	80-120	1.15		0.0670	U	2.00	57.4	N	AV

*Analytical Methods:

AV EPA 245.1/245.2

Metals
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Duplicate Sample Summary

SDG No.: 573869

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-01-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573869001

Duplicate ID: 1205046546

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	ug/L		0.600 U		0.600 U				MS
Arsenic	ug/L		1.66 U		1.66 U				MS
Barium	ug/L	+/-20%	240		247		2.99		MS
Beryllium	ug/L		0.200 U		0.200 U				MS
Boron	ug/L	+/-20%	2250		2400		6.67		MS
Cadmium	ug/L		0.0300 U		0.0300 U				MS
Calcium	ug/L	+/-20%	73000		73700		.931		MS
Chromium	ug/L	+/-20%	36.5		37.5		2.76		MS
Cobalt	ug/L	+/-2	0.397 B		0.427 B		7.28		MS
Lead	ug/L		0.500 U		0.500 U				MS
Lithium	ug/L		2.00 U		2.00 U				MS
Molybdenum	ug/L	+/-20%	2.96		2.93		1.26		MS
Selenium	ug/L		1.50 U		1.50 U				MS
Thallium	ug/L		0.125 U		0.125 U				MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
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Duplicate Sample Summary

SDG No.: 573869

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-03-2022Q1D

Matrix: GROUND WATER

Level: Low

Sample ID: 573749001

Duplicate ID: 1205053319

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/L		0.0670	U	0.0670	U			AV

*Analytical Methods:
 AV EPA 245.1/245.2

METALS

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Laboratory Control Sample Summary

SDG NO. 573869

Contract: DMNN00101

Aqueous LCS Source: Enviromental Express

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205046545								
	Antimony	ug/L	50.0	52.4		105	85-115	MS
	Arsenic	ug/L	50.0	52.9		106	85-115	MS
	Barium	ug/L	50.0	52.7		105	85-115	MS
	Beryllium	ug/L	50.0	54.7		109	85-115	MS
	Boron	ug/L	100	106		106	85-115	MS
	Cadmium	ug/L	50.0	54.6		109	85-115	MS
	Calcium	ug/L	2000	2280		114	85-115	MS
	Chromium	ug/L	50.0	52.1		104	85-115	MS
	Lead	ug/L	50.0	53.1		106	85-115	MS
	Lithium	ug/L	50.0	53.9		108	80-120	MS
	Molybdenum	ug/L	50.0	50.9		102	85-115	MS
	Selenium	ug/L	50.0	51.8		104	85-115	MS
	Thallium	ug/L	50.0	51.1		102	85-115	MS
	Cobalt	ug/L	50.0	52.8		106	85-115	MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Laboratory Control Sample Summary

SDG NO. 573869

Contract: DMNN00101

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205053312	Mercury	ug/L	2.00	2.06		103	85-115	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

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Serial Dilution Sample Summary

SDG NO. 573869 Client ID: MW-AP-01-2022Q1L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573869001 Serial Dilution ID: 1205046548

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Antimony	.6	U	3	U				MS
Arsenic	1.66	U	8.3	U				MS
Barium	240		260		8.214		10	MS
Beryllium	.2	U	1	U				MS
Boron	112		147		30.606			MS
Cadmium	.03	U	.15	U				MS
Calcium	14600		14100		3.684		10	MS
Chromium	36.5		38.5		5.517			MS
Cobalt	.397	B	.5	U	19.647			MS
Lead	.5	U	2.5	U				MS
Lithium	2	U	10	U				MS
Molybdenum	2.96		2.9		2.328			MS
Selenium	1.5	U	7.5	U				MS
Thallium	.125	U	.625	U				MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Serial Dilution Sample Summary

SDG NO. 573869 Client ID: MW-AP-03-2022Q1L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 573749001 Serial Dilution ID: 1205053321

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.067	U	.335	U				AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 573869

Method Type: MS

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2243847							
1205046544	MB for batch 2243847	MB	G	22-MAR-22	50mL	50mL	
1205046545	LCS for batch 2243847	LCS	G	22-MAR-22	50mL	50mL	
1205046547	MW-AP-01-2022Q1S	MS	G	22-MAR-22	50mL	50mL	
1205046546	MW-AP-01-2022Q1D	DUP	G	22-MAR-22	50mL	50mL	
573869001	MW-AP-01-2022Q1	SAMPLE	G	22-MAR-22	50mL	50mL	
573869002	MW-AP-02-2022Q1	SAMPLE	G	22-MAR-22	50mL	50mL	
573869003	MW-AP-10-2022Q1	SAMPLE	G	22-MAR-22	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 573869

Method Type: AV

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2247196							
1205053311	MB for batch 2247196	MB	G	30-MAR-22	20mL	20mL	
1205053312	LCS for batch 2247196	LCS	G	30-MAR-22	20mL	20mL	
1205053320	MW-AP-03-2022Q1S	MS	G	30-MAR-22	20mL	20mL	
1205053319	MW-AP-03-2022Q1D	DUP	G	30-MAR-22	20mL	20mL	
573869001	MW-AP-01-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573869002	MW-AP-02-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	
573869003	MW-AP-10-2022Q1	SAMPLE	G	30-MAR-22	20mL	20mL	

General Chem Analysis

Case Narrative

**General Chemistry
Technical Case Narrative
Dominion Energy
SDG #: 573869**

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2244269

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573869001	MW-AP-01-2022Q1
573869002	MW-AP-02-2022Q1
573869003	MW-AP-10-2022Q1
1205047338	Method Blank (MB)
1205047339	Laboratory Control Sample (LCS)
1205047340	573869001(MW-AP-01-2022Q1) Sample Duplicate (DUP)
1205047342	573869001(MW-AP-01-2022Q1) Post Spike (PS)

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

Data Summary:

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

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205047342 (MW-AP-01-2022Q1PS)	111* (90%-110%)
Sulfate	1205047342 (MW-AP-01-2022Q1PS)	117* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205047340 (MW-AP-01-2022Q1DUP), 1205047342 (MW-AP-01-2022Q1PS), 573869001 (MW-AP-01-2022Q1), 573869002 (MW-AP-02-2022Q1) and 573869003 (MW-AP-10-2022Q1) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	573869		
	001	002	003
Chloride	50X	20X	20X
Sulfate	1X	20X	20X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2245082

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573869001	MW-AP-01-2022Q1
573869002	MW-AP-02-2022Q1
573869003	MW-AP-10-2022Q1
1205049020	Method Blank (MB)
1205049021	Laboratory Control Sample (LCS)
1205049022	573749001(MW-AP-03-2022Q1) Sample Duplicate (DUP)
1205049023	574076001(NonSDG) Sample Duplicate (DUP)

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

Data Summary:

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

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573869 GEL Work Order: 573869


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Aubrey Kingsbury

Date: 30 MAR 2022

Title: Team Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-01-2022Q1

Project: DMNN00101

Sample ID: 573869001

Client ID: DMNN001

Matrix: GW

Collect Date: 18-MAR-22 11:30

Receive Date: 21-MAR-22

Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.333	0.0330	0.100	mg/L		1	HXC1	03/22/22	1251	2244269	1
Sulfate		14.3	0.133	0.400	mg/L		1					
Chloride		183	3.35	10.0	mg/L		50	HXC1	03/22/22	2134	2244269	2
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		463	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SM 2540C		

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

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Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-02-2022Q1 Project: DMNN00101
Sample ID: 573869002 Client ID: DMNN001
Matrix: GW
Collect Date: 18-MAR-22 10:40
Receive Date: 21-MAR-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.184	0.0330	0.100	mg/L		1	HXC1	03/22/22	1321	2244269	1
Chloride		89.6	1.34	4.00	mg/L		20	HXC1	03/22/22	2307	2244269	2
Sulfate		34.5	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		360	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SM 2540C		

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: March 30, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-10-2022Q1	Project: DMNN00101
Sample ID: 573869003	Client ID: DMNN001
Matrix: GW	
Collect Date: 18-MAR-22 12:20	
Receive Date: 21-MAR-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.513	0.0330	0.100	mg/L		1	HXC1	03/22/22	1352	2244269	1
Chloride		123	1.34	4.00	mg/L		20	HXC1	03/22/22	2337	2244269	2
Sulfate		38.9	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		353	3.40	14.3	mg/L			KLP1	03/24/22	1512	2245082	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 30, 2022

Page 1 of 3

Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia

Contact: Kelly Hicks

Workorder: 573869

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2244269										
QC1205047340	573869001	DUP									
Chloride		183		182	mg/L	0.395		(0%-20%)	HXC1	03/22/22	22:05
Fluoride		0.333		0.316	mg/L	5.24 ^		(+/-2)		03/22/22	19:31
Sulfate		14.3		14.2	mg/L	0.608		(0%-20%)			
QC1205047339	LCS										
Chloride	5.00			5.03	mg/L		101	(90%-110%)		03/22/22	17:28
Fluoride	2.50			2.52	mg/L		101	(90%-110%)			
Sulfate	10.0			10.5	mg/L		105	(90%-110%)			
QC1205047338	MB										
Chloride			U	ND	mg/L					03/22/22	16:57
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205047342	573869001	PS									
Chloride	5.00	3.66		9.23	mg/L		111 *	(90%-110%)		03/22/22	22:36
Fluoride	2.50	0.333		2.87	mg/L		102	(90%-110%)		03/22/22	20:02
Sulfate	10.0	14.3		25.9	mg/L		117 *	(90%-110%)			

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QC Summary

Workorder: **573869**

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2245082										
QC1205049022	573749001	DUP									
Total Dissolved Solids		469		469	mg/L	0		(0%-5%)	KLP1	03/24/22	15:12
QC1205049023	574076001	DUP									
Total Dissolved Solids		683		710	mg/L	3.9		(0%-5%)		03/24/22	15:12
QC1205049021	LCS										
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)		03/24/22	15:12
QC1205049020	MB										
Total Dissolved Solids			U	ND	mg/L					03/24/22	15:12

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 See case narrative for an explanation
- J Value is estimated
- 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.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- 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

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QC Summary

Workorder: 573869

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

Radiological Analysis

Case Narrative

**Radiochemistry
Technical Case Narrative
Dominion Energy
SDG #: 573869**

Product: GFPC Ra228, Liquid
Analytical Method: EPA 904.0
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2243881

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573869001	MW-AP-01-2022Q1
573869002	MW-AP-02-2022Q1
573869003	MW-AP-10-2022Q1
1205046587	Method Blank (MB)
1205046588	573749001(MW-AP-03-2022Q1) Sample Duplicate (DUP)
1205046589	Laboratory Control Sample (LCS)

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

Data Summary:

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

Quality Control (QC) Information

RDL Met

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

Sample	Analyte	Value
1205046587 (MB)	Radium-228	Result 0.98 < MDA 3.13 > RDL 3 pCi/L

Technical Information

Recounts

Samples were re-eluted and recounted to verify sample results. The recounts are reported.

Product: Lucas Cell, Ra226, Liquid
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2243882

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
573869001	MW-AP-01-2022Q1
573869002	MW-AP-02-2022Q1
573869003	MW-AP-10-2022Q1
1205046590	Method Blank (MB)
1205046591	573869001(MW-AP-01-2022Q1) Sample Duplicate (DUP)
1205046592	573869001(MW-AP-01-2022Q1) Matrix Spike (MS)
1205046593	Laboratory Control Sample (LCS)

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

Data Summary:

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

Miscellaneous Information

Additional Comments

The matrix spike, 1205046592 (MW-AP-01-2022Q1MS), aliquot was reduced to conserve sample volume.

Certification Statement

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

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Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 573869 GEL Work Order: 573869

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

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Theresa Austin

Date: 03 APR 2022

Title: Group Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 3, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-01-2022Q1
Sample ID: 573869001
Matrix: GW
Collect Date: 18-MAR-22
Receive Date: 21-MAR-22
Collector: Client

Project: DMNN00101
Client ID: DMNN001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.96	+/-1.62	2.08	+/-1.90	3.00	pCi/L			JXC9	03/31/22	0911	2243881	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		9.95	+/-1.96		+/-2.42		pCi/L			NXL1	04/01/22	1132	2243901	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		5.99	+/-1.11	0.567	+/-1.49	1.00	pCi/L			LXP1	03/31/22	0740	2243882	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243881	53.6	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 3, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-02-2022Q1

Project: DMNN00101

Sample ID: 573869002

Client ID: DMNN001

Matrix: GW

Collect Date: 18-MAR-22

Receive Date: 21-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	2.57	+/-1.75	2.73	+/-1.87	3.00	pCi/L			JXC9	03/31/22	0911	2243881	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		10.4	+/-2.13		+/-2.64		pCi/L			NXL1	04/01/22	1132	2243901	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		7.82	+/-1.21	0.722	+/-1.86	1.00	pCi/L			LXP1	03/31/22	0740	2243882	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243881	54.1	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: April 3, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-10-2022Q1

Project: DMNN00101

Sample ID: 573869003

Client ID: DMNN001

Matrix: GW

Collect Date: 18-MAR-22

Receive Date: 21-MAR-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.52	+/-1.50	2.46	+/-1.55	3.00	pCi/L			JXC9	03/31/22	0911	2243881	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		8.80	+/-1.89		+/-2.48		pCi/L			NXL1	04/01/22	1132	2243901	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		7.28	+/-1.15	0.444	+/-1.94	1.00	pCi/L			LXP1	03/31/22	0740	2243882	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2243881	55.6	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: April 3, 2022
Page 1 of 2

Client : Dominion Energy Services, Inc.
120 Tredegar Street

Contact: Richmond, Virginia 23219
Kelly Hicks

Workorder: 573869

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date Time
Rad Gas Flow									
Batch	2243881								
QC1205046587	MB								
Radium-228			U	0.980	pCi/L			JXC9	03/31/2209:10
				Uncert: +/-1.79					
				TPU: +/-1.81					
QC1205046588	573749001	DUP							
Radium-228		5.82		3.04	pCi/L				03/31/2209:10
				Uncert: +/-2.27		RPD: 63 (0% - 100%)			
				TPU: +/-2.70		RER: 1.62 (0-2)			
QC1205046589	LCS								
Radium-228		46.2		44.6	pCi/L	REC: 96.5 (80%-120%)			03/31/2209:10
				Uncert: +/-5.14					
				TPU: +/-12.3					
Rad Ra-226									
Batch	2243882								
QC1205046590	MB								
Radium-226			U	0.430	pCi/L			LXP1	03/31/2207:40
				Uncert: +/-0.398					
				TPU: +/-0.405					
QC1205046591	573869001	DUP							
Radium-226		5.99		5.14	pCi/L				
				Uncert: +/-1.11		RPD: 15 (0%-20%)			
				TPU: +/-1.49		RER: 0.865 (0-2)			
QC1205046592	573869001	MS							
Radium-226		124	5.99	131	pCi/L	REC: 101 (75%-125%)			
				Uncert: +/-1.11					
				TPU: +/-1.49					
QC1205046593	LCS								
Radium-226		26.6		23.6	pCi/L	REC: 88.7 (80%-120%)			
				Uncert: +/-2.07					
				TPU: +/-4.54					

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

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

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QC Summary

Workorder: 573869

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Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date	Time
FB										
H										
J										
J										
K										
L										
M										
M										
N										
N/A										
N1										
ND										
NJ										
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.

** Indicates analyte is a surrogate compound.

^ 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.

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.



This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

**Wateree Power Station Groundwater Sampling
Samples Collected between: 3/14/2022 and 3/18/2022**

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

573561

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-01A-2022Q1	MW-01A	N	EPA 200.8	Beryllium	T	0.245	J	RL	0.200	0.500		ug/L
MW-AP-01A-2022Q1	MW-01A	N	EPA 200.8	Boron	T	10.9	J	RL	4.00	15.0		ug/L
MW-AP-01A-2022Q1	MW-01A	N	EPA 200.8	Cobalt	T	0.523	J	RL	0.100	1.00		ug/L
MW-AP-01A-2022Q1	MW-01A	N	EPA 200.8	Lead	T	1.13	J	RL	0.500	2.00		ug/L
MW-AP-01A-2022Q1	MW-01A	N	EPA 200.8	Thallium	T	0.165	J	RL	0.125	0.500		ug/L
MW-AP-01A-2022Q1	MW-01A	N	EPA 300.0	Sulfate	N	0.205	J	RL	0.133	0.400		mg/L
DU-WAT-CCR-AP-22103	MW-08	FD	CALC	Radium-226+228 Sum	N	4.91	J	S,FD			1.58	pCi/L
DU-WAT-CCR-AP-22103	MW-08	FD	EPA 200.8	Arsenic	T	2.06	J	RL	1.66	5.00		ug/L
DU-WAT-CCR-AP-22103	MW-08	FD	EPA 200.8	Cobalt	T	5.28	J	FD	0.100	1.00		ug/L
DU-WAT-CCR-AP-22103	MW-08	FD	EPA 200.8	Selenium	T	3.46	J	RL	1.50	5.00		ug/L
DU-WAT-CCR-AP-22103	MW-08	FD	EPA 903.1	Radium-226	N	2.98	J	FD	0.556	1.00	0.835	pCi/L
MW-AP-08-2022Q1	MW-08	N	CALC	Radium-226+228 Sum	N	4.94	J	S,FD			1.49	pCi/L
MW-AP-08-2022Q1	MW-08	N	EPA 200.8	Arsenic	T	2.28	J	RL	1.66	5.00		ug/L
MW-AP-08-2022Q1	MW-08	N	EPA 200.8	Cobalt	T	4.25	J	FD	0.100	1.00		ug/L
MW-AP-08-2022Q1	MW-08	N	EPA 200.8	Lithium	T	9.69	J	RL	2.00	10.0		ug/L
MW-AP-08-2022Q1	MW-08	N	EPA 200.8	Selenium	T	3.79	J	RL	1.50	5.00		ug/L
MW-AP-08-2022Q1	MW-08	N	EPA 903.1	Radium-226	N	4.69	J	FD	0.580	1.00	1.33	pCi/L
MW-AP-11-2022Q1	MW-AP-11	N	EPA 200.8	Cadmium	T	0.0380	J	RL	0.0300	0.100		ug/L
MW-AP-11-2022Q1	MW-AP-11	N	EPA 200.8	Lead	T	0.647	J	RL	0.500	2.00		ug/L

Data Qualifiers

U	The analyte was not detected above the level of the reported sample quantitation limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	This analyte was not detected, but the reporting limit may or may not be higher due to a bias identified during data validation.
R	Unreliable positive result; analyte may or may not be present in sample.

Reason Codes and Explanations	
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Lab Sample ID	573561001
Sys Sample Code	MW-AP-01A-2022Q1
Sample Name	MW-AP-01A-2022Q1
Sample Date	3/16/2022 1:40:00 PM
Location	WAT-MW-01A / MW-01A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	4.47			1.71				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	59.4				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	0.245	J	RL		0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	10.9	J	RL		4.00	4.00	15.0	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	593				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.523	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	1.13	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L	0.165	J	RL		0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	5.91				0.0670	0.0670	0.200	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U			0.0330	0.0330	0.100	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	0.205	J	RL		0.133	0.133	0.400	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.47			0.599	0.607	0.607	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	3.01			1.60	1.91	1.91	3.00	Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	27.1				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573561002
Sys Sample Code	DU-WAT-CCR-AP-22103
Sample Name	DU-WAT-CCR-AP-22103
Sample Date	3/16/2022 12:00:00 PM
Location	WAT-MW-08 / MW-08
Sample Type	FD
Matrix	GW
Parent Sample	MW-AP-08-2022Q1

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	4.91	J	S,FD	1.58				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	2.06	J	RL		1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	197				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	4.74				0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	350				20.0	20.0	75.0	Y	Yes	5	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	22800				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	5.28	J	FD		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	10.0				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
Selenium	7782-49-2	T	ug/L	3.46	J	RL		1.50	1.50	5.00	Y	Yes	1	NA	
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.798				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	17.8				0.670	0.670	2.00	Y	Yes	10	NA
	Sulfate	14808-79-8	N	mg/L	108				1.33	1.33	4.00	Y	Yes	10	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	2.98	J	FD	0.835	0.556	0.556	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.93	U		1.35	1.96	1.96	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	390				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573561003
Sys Sample Code	MW-AP-08-2022Q1
Sample Name	MW-AP-08-2022Q1
Sample Date	3/16/2022 11:20:00 AM
Location	WAT-MW-08 / MW-08
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	4.94	J	S,FD	1.49				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	2.28	J	RL		1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	200				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	4.31				0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	314				20.0	20.0	75.0	Y	Yes	5	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	22500				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	4.25	J	FD		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	9.69	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
Selenium	7782-49-2	T	ug/L	3.79	J	RL		1.50	1.50	5.00	Y	Yes	1	NA	
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.729				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	18.6				0.670	0.670	2.00	Y	Yes	10	NA
	Sulfate	14808-79-8	N	mg/L	90.8				1.33	1.33	4.00	Y	Yes	10	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	4.69	J	FD	1.33	0.580	0.580	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	0.250	U		0.671	1.22	1.22	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	399				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573561004
Sys Sample Code	MW-AP-11-2022Q1
Sample Name	MW-AP-11-2022Q1
Sample Date	3/16/2022 4:30:00 PM
Location	WAT-MW-AP-11 / MW-AP-11
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	7.44			2.06				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	701				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	162				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	732				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L	0.0380	J	RL		0.0300	0.0300	0.100	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	32400				600	600	2000	Y	Yes	20	NA
	Chromium	7440-47-3	T	ug/L	37.0				1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	2.90				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.647	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	58.6				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	19.4				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L			U		1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L			U		0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.469				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	145				3.35	3.35	10.0	Y	Yes	50	NA
	Sulfate	14808-79-8	N	mg/L	56.2				6.65	6.65	20.0	Y	Yes	50	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	3.80			0.958	0.484	0.484	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	3.64			1.82	2.27	2.27	3.00	Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	460				3.40	3.40	14.3	Y	Yes	1	NA



This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

**Wateree Power Station Groundwater Sampling
Samples Collected between: 3/14/2022 and 3/18/2022**

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

573749

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-03-2022Q1	MW-AP-03	N	CALC	Radium-226+228 Sum	N	7.56	J	BF			2.77	pCi/L
MW-AP-03-2022Q1	MW-AP-03	N	EPA 200.8	Cobalt	T	0.265	J	RL	0.100	1.00		ug/L
MW-AP-03-2022Q1	MW-AP-03	N	EPA 200.8	Thallium	T	0.211	J	RL	0.125	0.500		ug/L
MW-AP-03-2022Q1	MW-AP-03	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-03-2022Q1	MW-AP-03	N	EPA 904.0	Radium-228	N	5.82	U	BF	5.82	5.82	2.70	pCi/L
MW-AP-03D-2022Q1	MW-AP-03D	N	CALC	Radium-226+228 Sum	N	6.11	J	BF			1.65	pCi/L
MW-AP-03D-2022Q1	MW-AP-03D	N	EPA 200.8	Lithium	T	8.89	J	RL	2.00	10.0		ug/L
MW-AP-03D-2022Q1	MW-AP-03D	N	EPA 200.8	Thallium	T	0.188	J	RL	0.125	0.500		ug/L
MW-AP-03D-2022Q1	MW-AP-03D	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-03D-2022Q1	MW-AP-03D	N	EPA 904.0	Radium-228	N	3.39	U	BF	3.39	3.39	1.43	pCi/L
MW-AP-03D2-2022Q1	MW-AP-03D2	N	CALC	Radium-226+228 Sum	N	3.45	J	BF			1.33	pCi/L
MW-AP-03D2-2022Q1	MW-AP-03D2	N	EPA 200.8	Lead	T	0.532	J	RL	0.500	2.00		ug/L
MW-AP-03D2-2022Q1	MW-AP-03D2	N	EPA 200.8	Lithium	T	8.71	J	RL	2.00	10.0		ug/L
MW-AP-03D2-2022Q1	MW-AP-03D2	N	EPA 200.8	Selenium	T	3.98	J	RL	1.50	5.00		ug/L
MW-AP-03D2-2022Q1	MW-AP-03D2	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-03D2-2022Q1	MW-AP-03D2	N	EPA 904.0	Radium-228	N	1.96	U	BF	1.96	3.00	1.17	pCi/L
MW-AP-04-2022Q1	MW-AP-04	N	CALC	Radium-226+228 Sum	N	4.69	J	BF			1.39	pCi/L
MW-AP-04-2022Q1	MW-AP-04	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-04-2022Q1	MW-AP-04	N	EPA 904.0	Radium-228	N	2.76	U	BF	2.76	3.00	1.24	pCi/L
FBLK-WAT-CCR-AP-22104	Field Blank	FB	EPA 200.8	Boron	T	5.91	J	RL	4.00	15.0		ug/L
FBLK-WAT-CCR-AP-22104	Field Blank	FB	SM 2540C	Total Dissolved Solids	N		UJ	H	3.40	14.3		mg/L
MW-AP-05-2022Q1	MW-AP-05	N	CALC	Radium-226+228 Sum	N	3.94	J	BF			1.24	pCi/L
MW-AP-05-2022Q1	MW-AP-05	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-05-2022Q1	MW-AP-05	N	EPA 300.0	Fluoride	N	0.0842	J	RL	0.0330	0.100		mg/L
MW-AP-05-2022Q1	MW-AP-05	N	EPA 904.0	Radium-228	N	1.65	U	BF	1.65	3.00	1.02	pCi/L

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-09-2022Q1	MW-AP-09	N	CALC	Radium-226+228 Sum	N	3.77	J	S			1.32	pCi/L
MW-AP-09-2022Q1	MW-AP-09	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-09D-2022Q1	MW-AP-09D	N	CALC	Radium-226+228 Sum	N	8.04	J	S			2.01	pCi/L
MW-AP-09D-2022Q1	MW-AP-09D	N	EPA 200.8	Beryllium	T	0.478	J	RL	0.200	0.500		ug/L
MW-AP-09D-2022Q1	MW-AP-09D	N	EPA 200.8	Lead	T	1.49	J	RL	0.500	2.00		ug/L
MW-AP-09D-2022Q1	MW-AP-09D	N	EPA 200.8	Lithium	T	9.90	J	RL	2.00	10.0		ug/L
MW-AP-09D-2022Q1	MW-AP-09D	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-09D-2022Q1	MW-AP-09D	N	EPA 300.0	Fluoride	N	0.0555	J	RL	0.0330	0.100		mg/L
MW-AP-11D-2022Q1	MW-AP-11D	N	CALC	Radium-226+228 Sum	N	6.84	J	BF			2.05	pCi/L
MW-AP-11D-2022Q1	MW-AP-11D	N	EPA 200.8	Lithium	T	8.59	J	RL	2.00	10.0		ug/L
MW-AP-11D-2022Q1	MW-AP-11D	N	EPA 200.8	Thallium	T	0.229	J	RL	0.125	0.500		ug/L
MW-AP-11D-2022Q1	MW-AP-11D	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-11D-2022Q1	MW-AP-11D	N	EPA 300.0	Fluoride	N	0.0824	J	RL	0.0330	0.100		mg/L
MW-AP-11D-2022Q1	MW-AP-11D	N	EPA 904.0	Radium-228	N	4.52	U	BF	4.52	4.52	1.89	pCi/L
MW-AP-11D2-2022Q1	MW-AP-11D2	N	CALC	Radium-226+228 Sum	N	7.08	J	BF			1.96	pCi/L
MW-AP-11D2-2022Q1	MW-AP-11D2	N	EPA 200.8	Lead	T	0.567	J	RL	0.500	2.00		ug/L
MW-AP-11D2-2022Q1	MW-AP-11D2	N	EPA 200.8	Thallium	T	0.427	J	RL	0.125	0.500		ug/L
MW-AP-11D2-2022Q1	MW-AP-11D2	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-11D2-2022Q1	MW-AP-11D2	N	EPA 904.0	Radium-228	N	3.83	U	BF	3.83	3.83	1.74	pCi/L
MW-AP-12-2022Q1	MW-AP-12	N	CALC	Radium-226+228 Sum	N	6.93	J	BF			1.60	pCi/L
MW-AP-12-2022Q1	MW-AP-12	N	EPA 200.8	Cobalt	T	0.736	J	RL	0.100	1.00		ug/L
MW-AP-12-2022Q1	MW-AP-12	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L
MW-AP-12-2022Q1	MW-AP-12	N	EPA 904.0	Radium-228	N	1.64	U	BF	1.64	3.00	1.09	pCi/L
FBLK-WAT-CCR-AP-22105	Field Blank	FB	CALC	Radium-226+228 Sum	N	2.31	J	S			1.31	pCi/L
FBLK-WAT-CCR-AP-22105	Field Blank	FB	EPA 200.8	Boron	T	4.07	J	RL	4.00	15.0		ug/L
FBLK-WAT-CCR-AP-22105	Field Blank	FB	EPA 300.0	Chloride	N	0.134	J	RL	0.0670	0.200		mg/L
MW-AP-13-2022Q1	MW-AP-13	N	CALC	Radium-226+228 Sum	N	3.19	J	S			1.48	pCi/L
MW-AP-13-2022Q1	MW-AP-13	N	EPA 245.1	Mercury	T		UJ	M	0.0670	0.200		ug/L

Data Qualifiers	
U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.
Reason Codes and Explanations	
BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.

FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Lab Sample ID	573749001
Sys Sample Code	MW-AP-03-2022Q1
Sample Name	MW-AP-03-2022Q1
Sample Date	3/17/2022 9:55:00 AM
Location	WAT-MW-AP-03 / MW-AP-03
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	7.56	J	BF	2.77				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1170				33.2	33.2	100	Y	Yes	20	NA
	Barium	7440-39-3	T	ug/L	206				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	1620				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	77100				600	600	2000	Y	Yes	20	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.265	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	67.8				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	21.0				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L	0.211	J	RL		0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.642				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	153				2.68	2.68	8.00	Y	Yes	40	NA
	Sulfate	14808-79-8	N	mg/L	73.6				5.32	5.32	16.0	Y	Yes	40	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.75			0.624	0.398	0.398	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	5.82	U	BF	2.70	5.82	5.82	5.82	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	469				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749002
Sys Sample Code	MW-AP-03D-2022Q1
Sample Name	MW-AP-03D-2022Q1
Sample Date	3/17/2022 11:15:00 AM
Location	WAT-MW-AP-03D / MW-AP-03D
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	6.11	J	BF	1.65				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1090				16.6	16.6	50.0	Y	Yes	10	NA
	Barium	7440-39-3	T	ug/L	106				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	902				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	62400				300	300	1000	Y	Yes	10	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	5.10				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	8.89	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	45.3				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L	0.188	J	RL		0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.358				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	77.4				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	71.9				2.66	2.66	8.00	Y	Yes	20	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	2.73			0.822	0.487	0.487	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	3.39	U	BF	1.43	3.39	3.39	3.39	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	354				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749003
Sys Sample Code	MW-AP-03D2-2022Q1
Sample Name	MW-AP-03D2-2022Q1
Sample Date	3/17/2022 12:45:00 PM
Location	WAT-MW-AP-03D2 / MW-AP-03D2
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	3.45	J	BF	1.33				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	34.8				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	1.92				0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	735				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L	0.117				0.0300	0.0300	0.100	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	10500				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	10.1				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.532	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	8.71	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
Selenium	7782-49-2	T	ug/L	3.98	J	RL		1.50	1.50	5.00	Y	Yes	1	NA	
Thallium	7440-28-0	T	ug/L	0.737				0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.101				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	21.9				0.670	0.670	2.00	Y	Yes	10	NA
	Sulfate	14808-79-8	N	mg/L	95.6				1.33	1.33	4.00	Y	Yes	10	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.49			0.628	0.500	0.500	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.96	U	BF	1.17	1.96	1.96	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	156				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749004
Sys Sample Code	MW-AP-04-2022Q1
Sample Name	MW-AP-04-2022Q1
Sample Date	3/17/2022 2:40:00 PM
Location	WAT-MW-AP-04 / MW-AP-04
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	4.69	J	BF	1.39				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	10.3				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	148				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	2140				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	138000				600	600	2000	Y	Yes	20	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	2.12				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.522				0.0330	0.0330	0.100	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	15.0				0.133	0.133	0.400	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	22.2				0.335	0.335	1.00	Y	Yes	5	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.93			0.621	0.448	0.448	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	2.76	U	BF	1.24	2.76	2.76	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	463				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749005
Sys Sample Code	FBLK-WAT-CCR-AP-22104
Sample Name	FBLK-WAT-CCR-AP-22104
Sample Date	3/16/2022 11:25:00 AM
Location	WAT-CCRFGD-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	0.678	U		0.754				N	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	5.91	J	RL		4.00	4.00	15.0	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L		U			30.0	30.0	100	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	0.213				0.0670	0.0670	0.200	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U			0.0330	0.0330	0.100	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L		U			0.133	0.133	0.400	N	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	0.286	U		0.302	0.480	0.480	1.00	N	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	0.392	U		0.691	1.21	1.21	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L		UJ	H		3.40	3.40	14.3	N	Yes	1	NA

Lab Sample ID	573749006
Sys Sample Code	MW-AP-05-2022Q1
Sample Name	MW-AP-05-2022Q1
Sample Date	3/17/2022 1:25:00 PM
Location	WAT-MW-AP-05 / MW-AP-05
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	3.94	J	BF	1.24				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	159				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	431				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	25300				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	4.01				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.0842	J	RL		0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	13.6				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	193				2.66	2.66	8.00	Y	Yes	20	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	2.28			0.697	0.498	0.498	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.65	U	BF	1.02	1.65	1.65	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	416				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749007
Sys Sample Code	MW-AP-09-2022Q1
Sample Name	MW-AP-09-2022Q1
Sample Date	3/17/2022 10:50:00 AM
Location	WAT-MW-AP-09 / MW-AP-09
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	3.77	J	S	1.32				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1250				16.6	16.6	50.0	Y	Yes	10	NA
	Barium	7440-39-3	T	ug/L	92.0				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	598				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	37500				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	12.5				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	17.2				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.473				0.0330	0.0330	0.100	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	19.3				0.133	0.133	0.400	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	49.8				0.670	0.670	2.00	Y	Yes	10	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	2.20			0.704	0.285	0.285	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.57	U		1.11	1.60	1.60	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	227				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749008
Sys Sample Code	MW-AP-09D-2022Q1
Sample Name	MW-AP-09D-2022Q1
Sample Date	3/17/2022 9:30:00 AM
Location	WAT-MW-AP-09D / MW-AP-09D
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	8.04	J	S	2.01				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	45.9				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	34.6				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	0.478	J	RL		0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	972				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	87300				300	300	1000	Y	Yes	10	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	34.7				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	1.49	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	9.90	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L	6.82				1.50	1.50	5.00	Y	Yes	1	NA
Thallium	7440-28-0	T	ug/L	0.736				0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.0555	J	RL		0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	22.3				1.68	1.68	5.00	Y	Yes	25	NA
	Sulfate	14808-79-8	N	mg/L	293				3.33	3.33	10.0	Y	Yes	25	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	8.04			1.61	0.471	0.471	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	-0.428	U		1.20	2.30	2.30	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	497				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749009
Sys Sample Code	MW-AP-11D-2022Q1
Sample Name	MW-AP-11D-2022Q1
Sample Date	3/17/2022 1:15:00 PM
Location	WAT-MW-AP-11D / MW-AP-11D
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	6.84	J	BF	2.05				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	371				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	57.4				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	661				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	37000				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	7.20				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	8.59	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	2.13				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L	0.229	J	RL		0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.0824	J	RL		0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	36.0				0.670	0.670	2.00	Y	Yes	10	NA
	Sulfate	14808-79-8	N	mg/L	75.0				1.33	1.33	4.00	Y	Yes	10	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	2.32			0.786	0.479	0.479	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	4.52	U	BF	1.89	4.52	4.52	4.52	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	233				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749010
Sys Sample Code	MW-AP-11D2-2022Q1
Sample Name	MW-AP-11D2-2022Q1
Sample Date	3/17/2022 10:45:00 AM
Location	WAT-MW-AP-11D2 / MW-AP-11D2
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	7.08	J	BF	1.96				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	165				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	4.12				0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	286				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	2770				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	10.5				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.567	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	18.8				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA	
Thallium	7440-28-0	T	ug/L	0.427	J	RL		0.125	0.125	0.500	Y	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	13.9				0.335	0.335	1.00	Y	Yes	5	NA
	Sulfate	14808-79-8	N	mg/L	44.4				0.665	0.665	2.00	Y	Yes	5	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.107				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	3.25			0.897	0.461	0.461	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	3.83	U	BF	1.74	3.83	3.83	3.83	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	1.64				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749011
Sys Sample Code	MW-AP-12-2022Q1
Sample Name	MW-AP-12-2022Q1
Sample Date	3/17/2022 4:30:00 PM
Location	WAT-MW-AP-12 / MW-AP-12
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	6.93	J	BF	1.60				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	362				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	284				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	1170				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	137000				300	300	1000	Y	Yes	10	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.736	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	16.4				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	26.6				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	30.7				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	257				2.66	2.66	8.00	Y	Yes	20	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.747				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	5.28			1.17	0.333	0.333	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.64	U	BF	1.09	1.64	1.64	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	643				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573749012
Sys Sample Code	FBLK-WAT-CCR-AP-22105
Sample Name	FBLK-WAT-CCR-AP-22105
Sample Date	3/17/2022 9:44:00 AM
Location	WAT-CCRFGD-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	2.31	J	S	1.31				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	4.07	J	RL		4.00	4.00	15.0	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L		U			30.0	30.0	100	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	0.500	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	0.134	J	RL		0.0670	0.0670	0.200	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U			0.0330	0.0330	0.100	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L		U			0.133	0.133	0.400	N	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	0.109	U		0.312	0.590	0.590	1.00	N	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	2.20			1.27	1.65	1.65	3.00	Y	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L		U			3.40	3.40	14.3	N	Yes	1	NA

Lab Sample ID	573749013
Sys Sample Code	MW-AP-13-2022Q1
Sample Name	MW-AP-13-2022Q1
Sample Date	3/17/2022 12:05:00 PM
Location	WAT-MW-AP-13 / MW-AP-13
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	3.19	J	S	1.48				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	668				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	133				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	597				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	53500				300	300	1000	Y	Yes	10	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	2.19				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	16.9				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	3.99				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		UJ	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	31.9				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	172				2.66	2.66	8.00	Y	Yes	20	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.530				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.27			0.534	0.508	0.508	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.92	U		1.38	2.04	2.04	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	416				3.40	3.40	14.3	Y	Yes	1	NA



This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

**Wateree Power Station Groundwater Sampling
Samples Collected between: 3/14/2022 and 3/18/2022**

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

573869

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-01-2022Q1	MW-AP-01	N	CALC	Radium-226+228 Sum	N	9.95	J	BF			2.42	pCi/L
MW-AP-01-2022Q1	MW-AP-01	N	EPA 200.8	Cobalt	T	0.397	J	RL	0.100	1.00		ug/L
MW-AP-01-2022Q1	MW-AP-01	N	EPA 904.0	Radium-228	N	3.96	U	BF	3.96	3.96	1.90	pCi/L
MW-AP-02-2022Q1	MW-AP-02	N	CALC	Radium-226+228 Sum	N	10.4	J	S			2.64	pCi/L
MW-AP-02-2022Q1	MW-AP-02	N	EPA 200.8	Cobalt	T	0.320	J	RL	0.100	1.00		ug/L
MW-AP-02-2022Q1	MW-AP-02	N	EPA 200.8	Lithium	T	9.94	J	RL	2.00	10.0		ug/L
MW-AP-10-2022Q1	MW-AP-10	N	CALC	Radium-226+228 Sum	N	8.80	J	S			2.48	pCi/L

Data Qualifiers

U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.

Reason Codes and Explanations

BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits

MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Lab Sample ID	573869001
Sys Sample Code	MW-AP-01-2022Q1
Sample Name	MW-AP-01-2022Q1
Sample Date	3/18/2022 11:30:00 AM
Location	WAT-MW-AP-01 / MW-AP-01
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	9.95	J	BF	2.42				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	240				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	2250				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	73000				150	150	500	Y	Yes	5	NA
	Chromium	7440-47-3	T	ug/L	36.5				1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.397	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	2.96				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.333				0.0330	0.0330	0.100	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	14.3				0.133	0.133	0.400	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	183				3.35	3.35	10.0	Y	Yes	50	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	5.99			1.49	0.567	0.567	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	3.96	U	BF	1.90	3.96	3.96	3.96	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	463				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573869002
Sys Sample Code	MW-AP-02-2022Q1
Sample Name	MW-AP-02-2022Q1
Sample Date	3/18/2022 10:40:00 AM
Location	WAT-MW-AP-02 / MW-AP-02
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	10.4	J	S	2.64				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	103				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	223				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	1130				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	63700				150	150	500	Y	Yes	5	NA
	Chromium	7440-47-3	T	ug/L	5.51				1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.320	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	9.94	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	8.69				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.184				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	89.6				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	34.5				2.66	2.66	8.00	Y	Yes	20	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	7.82			1.86	0.722	0.722	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	2.57	U		1.87	2.73	2.73	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	360				3.40	3.40	14.3	Y	Yes	1	NA

Lab Sample ID	573869003
Sys Sample Code	MW-AP-10-2022Q1
Sample Name	MW-AP-10-2022Q1
Sample Date	3/18/2022 12:20:00 PM
Location	WAT-MW-AP-10 / MW-AP-10
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	8.80	J	S	2.48				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	235				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	148				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	1520				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	46700				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L	8.03				1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	1.82				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	57.9				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	24.4				0.167	0.167	0.500	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.513				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	123				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	38.9				2.66	2.66	8.00	Y	Yes	20	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	7.28			1.94	0.444	0.444	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.52	U		1.55	2.46	2.46	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	353				3.40	3.40	14.3	Y	Yes	1	NA

Appendix B
Second Semiannual Assessment Monitoring
Program Event Field Data Sheets, Laboratory
Reports, and Data Validation Forms


Wateree Station Ash Pond - CCR Sampling Event

Date(s) Measured: 9/6/2022

Well ID	Well Diameter (inches)	Well Total Depth (ft BTOC)	Well Completion	Screen length (ft)	Depth to Water (ft below TOC)	Pump Type
MW-AP-01A	2	23.78	Stickup	10	15.01	Peristaltic
MW-AP-01	2	23.35	Stickup	15	18.97	Peristaltic
MW-AP-02	2	32.75	Stickup	15	25.60	Peristaltic
MW-AP-03	2	33.53	Stickup	15	22.56	Peristaltic
MW-AP-03D	2	49.26	Stickup	10	29.53	Peristaltic
MW-AP-3D2	2	73.33	Stickup	10	23.88	Peristaltic
MW-AP-04	2	25.65	Stickup	15	11.93	Peristaltic
MW-AP-05	2	39.38	Stickup	15	24.66	Peristaltic
MW-AP-08	2	42.24	Stickup	20	23.13	Peristaltic
MW-AP-09	2	32.40	Stickup	10	20.62	Peristaltic
MW-AP-09D	2	57.30	Stickup	10	21.83	Peristaltic
MW-AP-10	2	32.60	Stickup	10	24.08	Peristaltic
MW-AP-11	2	22.00	Stickup	10	16.89	Peristaltic
MW-AP-11D	2	40.94	Stickup	10	21.58	Peristaltic
MW-AP-11D2	2	62.25	Stickup	10	17.21	Peristaltic
MW-AP-12	2	32.50	Stickup	10	19.42	Peristaltic
MW-AP-13	2	31.20	Stickup	10	18.43	Peristaltic

AS-FGD-01
 AS-FGD-02
 AS-FGD-03
 MW-FGD-02
 MW-FGD-03
 MW-FGD-04
 MW-FGD-05

17.19 wL only
 16.12
 15.07
 16.60
 18.08
 16.23
 16.13





WATER SAMPLE LOG

PROJECT NAME: Wateree Station AP-NPDES	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.6.2	BY: <u>BJM</u> DATE: <u>9.8.22</u>	BY: <u>JAY</u> DATE: <u>9.13.22</u>

SAMPLE ID: MW-1A/MW-AP-01A	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>0955</u>	DATE: <u>9.8.22</u>	SAMPLE	TIME: <u>1030</u>	DATE: <u>9.8.22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP <input type="checkbox"/> BAILER	<input checked="" type="checkbox"/> PERISTALTIC PUMP		PH: <u>4.19</u> SU	CONDUCTIVITY: <u>41.49</u> umhos/cm	
			ORP: <u>99.6</u> mV	DO: <u>2.03</u> mg/L	
DEPTH TO WATER: _____ T/ PVC			TURBIDITY: <u>2.84</u> NTU		
DEPTH TO BOTTOM: <u>23.82</u> T/ PVC <u>23.80</u>			<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <u>2.3</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			TEMPERATURE: <u>22.48</u> °C OTHER: _____		
VOLUME REMOVED: _____ <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS			COLOR: <u>clear</u> ODOR: <u>None</u>		
COLOR: <u>clear w/ sediment</u> ODOR: <u>non</u>			FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			FILTRATE COLOR: _____ FILTRATE ODOR: _____		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER			COMMENTS: <u>2.41</u>		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1000	280	4.88	45.79	94.9	2.12	10.63	23.12	15.09	INITIAL
1005		4.29	43.96	99.8	1.01	15.12	22.91	15.12	
1010		4.17	41.81	102.0	1.35	18.0	22.52		
1015		4.12	41.36	102.2	1.66	9.79	22.44		
1020		4.17	41.30	99.4	1.76	6.36	22.45		
1025		4.19	41.37	98.1	1.84	6.34	22.44		
1030		4.19	41.49	99.6	2.03	2.84	22.48		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- D.O.: +/- TURB: +/- 10% or <= 5 TEMP.: +/-

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
2	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
2	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
2	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	AMBER	C	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u> DATE: <u>9.13.22</u>	BY: <u>JAN</u> DATE: <u>9/15/22</u>

SAMPLE ID: MW-AP-01	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1035</u>	DATE: <u>9.13.22</u>	SAMPLE	TIME: <u>1150</u>	DATE: <u>9.13.22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>5.99</u> SU		CONDUCTIVITY: <u>1016.7</u> umhos/cm		
DEPTH TO WATER: <u>18.97</u> T/ PVC	ORP: <u>-59.9</u> mV		DO: <u>0.06</u> mg/L		
DEPTH TO BOTTOM: <u>23.35</u> T/ PVC <u>23.38</u>	TURBIDITY: <u>2.22</u> NTU				
WELL VOLUME: <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>26.12</u> °C OTHER: _____				
VOLUME REMOVED: <u>3.2</u> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>		ODOR: <u>none</u>		
COLOR: <u>Clear</u> ODOR: <u>none</u>	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY	FILTRATE COLOR: _____		FILTRATE ODOR: _____		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER	QC SAMPLE: <input type="checkbox"/> MS/MSD <input checked="" type="checkbox"/> DUP- <u>22301</u>				
COMMENTS: <u>Post turb: 3.33 @ 1225</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1040	240	5.78	476.73	228.7	0.55	7.40	26.78	17.11	INITIAL
1045		5.75	500.29	177.6	0.30	8.41	26.01		
1050		5.46	749.01	117.4	0.13	10.44	25.74		
1110		5.73	1003.7	51.6	0.08	6.66	25.73		
1115		5.77	1008.1	24.5	0.07	6.22	25.86		
1120		5.80	1011.0	3.9	0.07	3.99	25.91		
1140		5.97	1017.6	-55.7	0.06	2.46	26.07		
1145		5.98	1021.3	-56.6	0.06	2.38	26.14		
1150		5.99	1016.7	-59.9	0.06	2.22	26.12		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____											
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC		PREPARED		CHECKED	
PROJECT NUMBER: 416559.0005.0000.5.2		BY: <u>BJM</u>	DATE: <u>9.13.22</u>	BY: <u>JAY</u>	DATE: <u>9/15/22</u>
SAMPLE ID: MW-AP-02		WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER			
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER					
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER					
PURGING	TIME: <u>1250</u>	DATE: <u>9.13.22</u>	SAMPLE	TIME: <u>1340</u>	DATE: <u>9.13.22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER		PH: <u>5.96</u> SU		CONDUCTIVITY: <u>734.62</u> umhos/cm	
		ORP: <u>-41.5</u> mV		DO: <u>0.09</u> mg/L	
DEPTH TO WATER: <u>28.60</u> T/ PVC		TURBIDITY: <u>4.39</u> NTU			
DEPTH TO BOTTOM: <u>32.75</u> T/ PVC		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
WELL VOLUME: <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS		TEMPERATURE: <u>24.77</u> °C		OTHER: _____	
VOLUME REMOVED: <u>1.8</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS		COLOR: <u>clear</u>		ODOR: <u>none</u>	
COLOR: <u>clear</u> ODOR: <u>none</u>		FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR: _____		FILTRATE ODOR: _____	
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____			
COMMENTS: <u>PH turb: 3.99 @ 1405</u>					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1255	140	5.80	662.26	18.5	0.16	4.81	27.45	2284	INITIAL
1300		5.84	686.53	-4.9	0.11	4.01	26.06	22.91	
1305		5.93	669.62	-32.0	0.10	3.87	24.96	23.03	
1325		5.96	718.10	-39.9	0.08	3.91	24.78	23.03	
1330		5.96	726.63	-41.1	0.08	3.86	24.73		
1335		5.97	725.13	-41.1	0.08	3.77	24.60		
1340		5.96	734.62	-41.5	0.09	4.39	24.77		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____												
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
1	2 L	PLASTIC	B	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N										
				<input type="checkbox"/> Y <input type="checkbox"/> N										

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u>	DATE: <u>9-13-22</u>
	BY: <u>JAY</u>	DATE: <u>9/15/22</u>

SAMPLE ID: MW-AP-03	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1415</u>	DATE: <u>9-13-22</u>	SAMPLE	TIME: <u>1450</u>	DATE: <u>9-15-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>6.06</u> SU	CONDUCTIVITY: <u>888.25</u> umhos/cm	ORP: <u>-58.6</u> mV	DO: <u>0.04</u> mg/L	
DEPTH TO WATER: <u>22.56</u> T/ PVC	TURBIDITY: <u>3.81</u> NTU	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
DEPTH TO BOTTOM: <u>33.53</u> T/ PVC	TEMPERATURE: <u>24.16</u> °C	OTHER: _____			
WELL VOLUME: <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>Clear</u>	ODOR: <u>slight septic</u>			
VOLUME REMOVED: <u>1.7</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FILTRATE ODOR: _____			
COLOR: <u>clear</u> ODOR: <u>slight septic</u>	FILTRATE COLOR: _____	QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP- _____			
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY	COMMENTS: <u>Post Turb: 3.62 @ 1515</u>				
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1420	220	5.76	840.04	39.7	0.06	7.21	27.40	21.27	INITIAL
1425		5.85	884.40	1.4	0.07	4.20	24.89		
1430		5.88	886.93	-11.1	0.06	3.76	24.61		
1435		5.97	888.21	-41.1	0.05	3.67	23.57		
1440		6.03	888.76	-52.6	0.04	3.79	23.88		
1445		6.02	890.64	-54.0	0.04	3.07	23.96		
1450		6.06	888.25	-58.6	0.04	3.81	24.16		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>BJM</u> DATE: <u>9.13.22</u>	BY: <u>JAY</u> DATE: <u>9/15/22</u>

SAMPLE ID: MW-AP-04	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1525</u>	DATE: <u>9.13.22</u>	SAMPLE	TIME: <u>1610</u>	DATE: <u>9.13.22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>5.86</u> SU	CONDUCTIVITY: <u>871.05</u> umhos/cm	ORP: <u>-140.1</u> mV	DO: <u>0.14</u> mg/L	
DEPTH TO WATER: <u>11.93</u> T/ PVC	TURBIDITY: <u>11.7</u> NTU	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY			
DEPTH TO BOTTOM: <u>25.55</u> T/ PVC <u>25.63</u>	TEMPERATURE: <u>21.90</u> °C	OTHER: _____			
WELL VOLUME: _____ <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>	ODOR: <u>Septic</u>			
VOLUME REMOVED: <u>1.6</u> <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	FILTRATE COLOR: _____ FILTRATE ODOR: _____			
COLOR: <u>clear</u> ODOR: <u>Septic</u>	TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY				
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER	COMMENTS: <u>Post turb: 12.90 @ 1630</u>				

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1530	150	5.57	872.42	108.6	4.47	5.83	21.75	10.50	INITIAL
1535		5.81	865.15	87.4	0.34	6.47	21.19	10.79	
1540		5.86	874.01	66.9	0.17	5.51	20.92	10.93	
1545		5.87	869.73	51.1	0.13	5.54	20.99	11.15	
1550		5.87	867.49	37.5	0.12	10.02	21.01	11.27	
1600		5.85	869.31	-138.3	0.14	11.8	21.86	11.31	
1605		5.85	870.87	-139.7	0.14	11.5	21.92		
1610		5.86	871.05	-140.1	0.14	11.7	21.90		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____											
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED			NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	
				<input type="checkbox"/> Y	<input type="checkbox"/> N						<input type="checkbox"/> Y	<input type="checkbox"/> N	

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: <u>AGM</u>	DATE: <u>9-13-22</u>
	BY: <u>JAY</u>	DATE: <u>9/15/22</u>

SAMPLE ID: MW-AP-05	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: <u>1507</u>	DATE: <u>9-13-22</u>	SAMPLE	TIME: <u>1540</u>	DATE: <u>9-13-22</u>
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: <u>5.92</u> SU		CONDUCTIVITY: <u>571.41</u> umhos/cm		
DEPTH TO WATER: <u>18.60</u> T/ PVC	ORP: <u>48.3</u> mV		DO: <u>0.12</u> mg/L		
DEPTH TO BOTTOM: 39.38 T/ PVC <u>39.48</u>	TURBIDITY: <u>3.49</u> NTU		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		
WELL VOLUME: <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: <u>clear</u> °C		OTHER: <u>none</u>		
VOLUME REMOVED: <u>1.4</u> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: <u>clear</u>		ODOR: <u>none</u>		
COLOR: <u>clear</u> ODOR: <u>none</u>	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FILTRATE COLOR: _____ FILTRATE ODOR: _____		
TURBIDITY <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		QC SAMPLE: <input type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-		COMMENTS: <u>Post turb: 2.89 @ 1610</u>	
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER					

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1510	180	5.79	442.71	77.7	2.19	4.11	41.72	18.60	INITIAL
1515	}	5.85	544.01	71.7	0.18	3.57	26.04	}	
1520		5.88	555.75	66.1	0.15	1.40	25.55		
1525		5.89	566.47	61.6	0.14	1.91	25.46		
1530		5.91	566.86	56.6	0.13	2.06	25.30		
1535		5.92	571.64	50.3	0.12	3.03	25.16		
1540		5.92	571.41	48.3	0.12	3.49	25.11		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F - _____									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD: _____	DATE SHIPPED: _____	AIRBILL NUMBER: _____
COC NUMBER: _____	SIGNATURE: _____	DATE SIGNED: _____



WATER SAMPLE LOG

PROJECT NAME: Wateree Station Ash Pond-CC	PREPARED	CHECKED
PROJECT NUMBER: 416559.0005.0000.5.2	BY: AGM	DATE: 9.13.22
	BY: JAY	DATE: 9/15/22

SAMPLE ID: MW-AP-08	WELL DIAMETER: <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER
WELL MATERIAL: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS <input type="checkbox"/> IRON <input type="checkbox"/> GALVANIZED STEEL <input type="checkbox"/> OTHER	
SAMPLE TYPE: <input checked="" type="checkbox"/> GW <input type="checkbox"/> WW <input type="checkbox"/> SW <input type="checkbox"/> DI <input type="checkbox"/> LEACHATE <input type="checkbox"/> OTHER	

PURGING	TIME: 1337	DATE: 9.13.22	SAMPLE	TIME: 1410	DATE: 9.13.22
PURGE METHOD: <input checked="" type="checkbox"/> PUMP PERISTALTIC PUMP <input type="checkbox"/> BAILER	PH: 5.89	SU	CONDUCTIVITY: 602.11	umhos/cm	
DEPTH TO WATER: - T/ PVC	ORP: 69.7	mV	DO: 0.18	mg/L	
DEPTH TO BOTTOM: 42.24 T/ PVC	TURBIDITY: 0.73	NTU			
WELL VOLUME: <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	TEMPERATURE: 24.78 °C		OTHER:		
VOLUME REMOVED: 1.3 <input type="checkbox"/> LITERS <input checked="" type="checkbox"/> GALLONS	COLOR: clear	ODOR: none			
COLOR: clear	ODOR: none	FILTRATE (0.45 um) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
TURBIDITY: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> VERY		FILTRATE COLOR:	FILTRATE ODOR:		
DISPOSAL METHOD: <input type="checkbox"/> GROUND <input type="checkbox"/> DRUM <input checked="" type="checkbox"/> OTHER		QC SAMPLE: <input checked="" type="checkbox"/> MS/MSD <input type="checkbox"/> DUP-	COMMENTS: Post turb! 1.96@1500		

TIME	PURGE RATE (ML/MIN)	PH (SU)	CONDUCTIVITY (umhos/cm)	ORP (mV)	D.O. (mg/L)	TURBIDITY (NTU)	TEMPERATURE (°C)	WATER LEVEL (FEET)	CUMULATIVE PURGE VOLUME (GALLONS)
1340	165	5.29	611.64	130.2	1.16	12.52	34.67	17.15	INITIAL
1345	}	4.92	713.79	122.5	0.24	6.03	26.83	17.16	
1350		5.32	686.08	105.3	0.19	3.07	25.96		
1355		5.61	641.11	89.7	0.17	3.16	25.69		
1400		5.87	600.96	76.7	0.17	2.87	24.97		
1405		5.88	606.38	71.8	0.18	2.89	24.99		
1410		5.89	602.11	69.7	0.18	2.73	24.78		

NOTE: STABILIZATION TEST IS COMPLETE WHEN 3 SUCCESSIVE READINGS ARE WITHIN THE FOLLOWING LIMITS:

pH: +/- 0.1 COND.: +/- 3% ORP: +/- 10 D.O.: +/- 10% TURB: +/- 10% or <= 5 TEMP.: +/- 3%

BOTTLES FILLED		PRESERVATIVE CODES A - NONE B - HNO3 C - H2SO4 D - NaOH E - HCL F -									
NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED		NUMBER	SIZE	TYPE	PRESERVATIVE	FILTERED	
1	250 mL	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	250 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	125 mL	PLASTIC	A	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
1	2 L	PLASTIC	B	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N
				<input type="checkbox"/> Y	<input type="checkbox"/> N					<input type="checkbox"/> Y	<input type="checkbox"/> N

SHIPPING METHOD:	DATE SHIPPED:	AIRBILL NUMBER:
COC NUMBER:	SIGNATURE:	DATE SIGNED:



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station Ash Pond-CCR	MODEL: <u>Insite Aquantek</u>	SAMPLER: <u>(AM)</u> BM
PROJECT NO.: 416559.0005.0000.5.2	SERIAL #: <u>909268</u>	DATE: <u>9.8.22</u>

PH CALIBRATION CHECK

pH 7 (LOT #): <u>21380102</u> (EXP. DATE): <u>4/23</u>	pH 4 <u>70 AC</u> (LOT #): <u>21470032</u> (EXP. DATE): <u>4/23</u>	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>7.05 / 7.00</u>	<u>4.14 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	
<u>6.98 / 7.00</u>	<u>4.00 / 4.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

Post

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): <u>X/C</u> (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4.44 / 4.49</u>	<u>24.30</u>	<input type="checkbox"/> WITHIN RANGE	
<u>4.48 / 4.49</u>	<u>24.23</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): <u>21149147</u> (EXP. DATE): <u>4/23</u>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>226 / 228</u>	<u>24.33</u>	<input type="checkbox"/> WITHIN RANGE	
<u>228 / 228</u>	<u>24.38</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

Post

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Baro: 755 mmHg</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>Temp: 24.15 °C</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc: 8.3 mg/L</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Actual: 8.28 mg/L</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)				CAL. RANGE	TIME
(LOT #):	(LOT #):				
(EXP. DATE):	(EXP. DATE):	PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
		<u>1.57 / 0.00</u>	<u>0.00 / 0.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
		<u>1.10 / 1.00</u>	<u>0.97 / 1.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
		<u>10.78 / 10.00</u>	<u>9.98 / 10.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
		<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION (LOT #): <u>21470032</u> (EXP. DATE): <u>4/23</u>	<input type="checkbox"/> STANDARD SOLUTION (S)
LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

<u>Lamotte 16034411</u>

PROBLEMS ENCOUNTERED

<u>None</u>

CORRECTIVE ACTIONS

<u>None</u>

SIGNED [Signature] DATE 9/15/22

CHECKED BY _____ DATE _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Wateree Station Ash Pond-CCR	MODEL: <u>Insite Apodall</u>	SAMPLER: AM / <u>BM</u>
PROJECT NO.: 416559.0005.0000.5.2	SERIAL #: <u>851425</u>	DATE: <u>9.8.22</u>

PH CALIBRATION CHECK

pH 7 (LOT #): <u>21380102</u> (EXP. DATE): <u>4/23</u>	pH 4 / NOX (LOT #): <u>21470032</u> (EXP. DATE): <u>4/23</u>	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>6.95 / 7.00</u>	<u>4.15 / 4.00</u>	<input type="checkbox"/> WITHIN RANGE	
<u>7.00 / 7.00</u>	<u>4.00 / 4.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

Post

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): <u>A/C</u> (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4.23 / 4.49</u>	<u>24.38</u>	<input type="checkbox"/> WITHIN RANGE	
<u>4.48 / 4.49</u>	<u>24.28</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): <u>21140147</u> (EXP. DATE): <u>4/23</u>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>226 / 228</u>	<u>24.33</u>	<input type="checkbox"/> WITHIN RANGE	
<u>226 / 228</u>	<u>24.37</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

3st

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Baro: 755 mmHg</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>Temp: 24.15°C</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc: 8.3 mg/L</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Actual: 8.31 mg/L</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #):	(LOT #):		
(EXP. DATE):	(EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<u>0.51 / 0.00</u>	<u>0.83 / 0.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>2.73 / 1.00</u>	<u>0.83 / 1.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>9.78 / 10.00</u>	<u>9.75 / 10.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION (LOT #): <u>21470032</u> (EXP. DATE): <u>4/23</u>	<input type="checkbox"/> STANDARD SOLUTION (S)
LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

Lanette 14794011

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

<u>None</u>	<u>None</u>

SIGNED [Signature] DATE 9/15/22

CHECKED BY _____ DATE _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Dominion - Wateree Station	MODEL: AQUA TROLL 400	SAMPLER: BM AM
PROJECT NO.: 416559.0005.0000.3.2	SERIAL #: 909268	DATE: 9.13.22

PH CALIBRATION CHECK

(LOT #): pH 7 21380102 (EXP. DATE): 4/23	(LOT #): pH 4/10 AC 21470032 (EXP. DATE): 4/23	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
6.62 / 7.00	4.14 / 4.00	<input type="checkbox"/> WITHIN RANGE	
6.96 / 7.00	4.00 / 4.00	<input checked="" type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

(LOT #): (EXP. DATE):	CAL. READING A/C	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
	PRE-CAL. READING / STANDARD			
	4.48 / 4.49	24.09	<input type="checkbox"/> WITHIN RANGE	
	4.49 / 4.49	24.14	<input checked="" type="checkbox"/> WITHIN RANGE	
	/		<input type="checkbox"/> WITHIN RANGE	
	/		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

(LOT #): (EXP. DATE):	CAL. READING 21140147 4/23	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
	PRE-CAL. READING / STANDARD			
	203 / 228	24.6	<input type="checkbox"/> WITHIN RANGE	
	228 / 228	25.1	<input checked="" type="checkbox"/> WITHIN RANGE	
	/		<input type="checkbox"/> WITHIN RANGE	
	/		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
Baro: 756 mmHg	<input checked="" type="checkbox"/> WITHIN RANGE	
Temp: 24.5 °C	<input type="checkbox"/> WITHIN RANGE	
Calc: 8.3 mg/L	<input type="checkbox"/> WITHIN RANGE	
Actual: 8.27 mg/L	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #):	(LOT #):		
(EXP. DATE):	(EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
1.99 / 0.00	0.00 / 0.00	<input checked="" type="checkbox"/> WITHIN RANGE	
2.39 / 1.00	1.11 / 1.00	<input checked="" type="checkbox"/> WITHIN RANGE	
7.99 / 10.00	9.70 / 10.00	<input checked="" type="checkbox"/> WITHIN RANGE	
/	/	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION (LOT #): 21470032 (EXP. DATE): 4/23	<input type="checkbox"/> STANDARD SOLUTION (S) LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input checked="" type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/>	
<input type="checkbox"/>	
⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER	

NOTES

Turb: 1663441

PROBLEMS ENCOUNTERED

None

CORRECTIVE ACTIONS

None

SIGNED: *[Signature]* DATE: 9/15/22

CHECKED BY: _____ DATE: _____



WATER QUALITY METER CALIBRATION LOG

PROJECT NAME: Dominion - Wateree Station	MODEL: AQUA TROLL 400	SAMPLER: <u>BM</u> AM
PROJECT NO.: 416559.0005.0000.3.2	SERIAL #: <u>851425</u>	DATE: <u>9.13.22</u>

PH CALIBRATION CHECK

pH 7 (LOT #): <u>21380102</u> (EXP. DATE): <u>4/23</u>	pH 4 / <u>10 AC</u> (LOT #): <u>21470032</u> (EXP. DATE): <u>4/23</u>	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD	PRE-CAL. READING / STANDARD		
<u>6.84</u> / <u>7.00</u>	<u>4.14</u> / <u>4.00</u>	<input type="checkbox"/> WITHIN RANGE	
<u>6.98</u> / <u>7.00</u>	<u>4.00</u> / <u>4.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

SPECIFIC CONDUCTIVITY CALIBRATION CHECK

CAL. READING (LOT #): <u>AC</u> (EXP. DATE):	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>4.42</u> / <u>4.49</u>	<u>24.37</u>	<input type="checkbox"/> WITHIN RANGE	
<u>4.49</u> / <u>4.49</u>	<u>24.44</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

ORP CALIBRATION CHECK

CAL. READING (LOT #): <u>2140147</u> (EXP. DATE): <u>4/23</u>	TEMPERATURE (°CELSIUS)	CAL. RANGE	TIME
PRE-CAL. READING / STANDARD			
<u>196</u> / <u>228</u>	<u>24.4</u>	<input type="checkbox"/> WITHIN RANGE	
<u>228</u> / <u>228</u>	<u>25.3</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	
<u>/</u>		<input type="checkbox"/> WITHIN RANGE	

D.O. CALIBRATION CHECK

CALIBRATION READING (mg/L)	CAL. RANGE	TIME
<u>Baro: 756 mmHg</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>Temp: 24.5 °C</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Calc: 8.3 mg/L</u>	<input type="checkbox"/> WITHIN RANGE	
<u>Actual: 8.36 mg/L</u>	<input type="checkbox"/> WITHIN RANGE	

TURBIDITY CALIBRATION CHECK

CALIBRATION READING (NTU)		CAL. RANGE	TIME
(LOT #):	(LOT #):		
(EXP. DATE):	(EXP. DATE):		
PRE-CAL. READING / STANDARD	POST-CAL. READING / STANDARD		
<u>0.96</u> / <u>0.00</u>	<u>0.00</u> / <u>0.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>1.29</u> / <u>1.00</u>	<u>0.90</u> / <u>1.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>11.4</u> / <u>10.00</u>	<u>10.58</u> / <u>10.00</u>	<input checked="" type="checkbox"/> WITHIN RANGE	
<u>/</u>	<u>/</u>	<input type="checkbox"/> WITHIN RANGE	

COMMENTS

<input checked="" type="checkbox"/> AUTOCAL SOLUTION (LOT #): <u>21470032</u> (EXP. DATE): <u>4/23</u>	<input type="checkbox"/> STANDARD SOLUTION (S)
LIST LOT NUMBERS AND EXPIRATION DATES UNDER CALIBRATION CHECK	
CALIBRATED PARAMETERS	CALIBRATION RANGES ⁽¹⁾
<input checked="" type="checkbox"/> pH	pH: +/- 0.2 S.U.
<input checked="" type="checkbox"/> COND	COND: +/- 1% OF CAL. STANDARD
<input checked="" type="checkbox"/> ORP	ORP: +/- 25 mV
<input type="checkbox"/> D.O.	D.O.: VARIES
<input type="checkbox"/> TURB	TURB: +/- 5% OF CAL. STANDARD
<input type="checkbox"/> _____	⁽¹⁾ CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE WATER QUALITY METER
<input type="checkbox"/> _____	

NOTES

<u>Turb: 14794011</u>	

PROBLEMS ENCOUNTERED

CORRECTIVE ACTIONS

<u>None</u>	<u>None</u>

SIGNED: [Signature] DATE: 9/15/22

CHECKED BY: _____ DATE: _____



September 22, 2022

Kelly Hicks
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219

Re: CCR Groundwater Monitoring - Level 1 Package
Work Order: 592596

Dear Kelly Hicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 09, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1648.

Sincerely,

Meredith Boddiford
Project Manager

Purchase Order: 50149867
Chain of Custody: 206939
Enclosures



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Case Narrative

**Receipt Narrative
for
Dominion Energy (50149867)
SDG: 592596**

September 22, 2022

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on September 09, 2022 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
592596001	MW-AP-01A-2022Q3
592596002	FBLK-WAT-CCR-AP-22301

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

Meredith Boddiford

Meredith Boddiford
Project Manager

Chain of Custody and Supporting Documentation

Project # 416559.0005.0000.5.2
 Quote # SA 2596
 OC Number 01-2022140
 PONumber PO 50149887
 Client Name: Dominion Energy
 Project/Site Name: Wateree Station Ash Pond CCR 2022Q3
 Address: Wateree, South Carolina
 Contacted By: B. Medlin / A. Misunas
 Send Results To: AReed@envystd.com
 Phone # 803-258-1528
 Fax #

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)		Comments
						Yes, please supply isotopic info.	(7) Known or possible hazards		N	N	
MW-AP-01-A-2022Q3	9-8-22	1030	N	N	GW	N	N	4	1	1	EPA 200.8 - Sb, As, Ba, Be
MW-AP-01-2022Q3			N	N	GW	N	N				B, Cd, Ca, Cr, Co, Pb, Li,
MW-AP-02-2022Q3			N	N	GW	N	N				Mo, Se, Tl
MW-AP-03-2022Q3			N	N	GW	N	N				EPA 245.1 - Hg
MW-AP-03D-2022Q3			N	N	GW	N	N				
MW-AP-03D2-2022Q3			N	N	GW	N	N				
MW-AP-04-2022Q3			N	N	GW	N	N				See attached work order for details
DU-WAT-CCR-AP-22301			FD	N	GW	N	N				
FBLK-WAT-CCR-AP-22301	9-8-22	1045	FB	N	AQ	N	N	4	1	1	
MW-AP-05-2022Q3			N	N	GW	N	N				

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 1. *[Signature]* 9-9-22 1153
 2. *[Signature]* 9-9-22 1446
 3. _____
 TAT Requested: Normal: Rush: _____ Specify: _____
 Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks:
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

1) Chain of Custody Number = Client Determined
 2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Settling, SI=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
 5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6) Preservative Type: BA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank
 7) **KNOWN OR POSSIBLE HAZARDS**
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes.)
 Waste code(s):
 TSCA Regulated: PCB = Polychlorinated biphenyls
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
 Pb = Lead
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description:

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

Client: DMNN		SDGAR/COC/Work Order: 592596	
Received By: MK		Date Received: 9/9/22	
Enter one tracking number per line below.		IR temperature gun # IR422	
Enter courier if applicable and no tracking available.		Daily Calibration performed <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Uncorrected temperature readings are to the 0.1 degree with final recorded temperatures rounded to the 0.5 degree. Provide individual container details when a cooler requiring 0 <= 6C is identified as out of specification.			
Cooler 1	Uncorrected Temp: 0.8	IR Correction Factor: + / - 0	Final Recorded Temp: 1.0 Within 0.0-6.0C? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Cooler 2	Uncorrected Temp: 1.2	IR Correction Factor: + / - 0	Final Recorded Temp: 1.0 Within 0.0-6.0C? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Cooler 3	Uncorrected Temp: 0.9	IR Correction Factor: + / - 0	Final Recorded Temp: 1.0 Within 0.0-6.0C? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
	Uncorrected Temp:	IR Correction Factor: + / -	Final Recorded Temp: Within 0.0-6.0C? Y / N
	Uncorrected Temp:	IR Correction Factor: + / -	Final Recorded Temp: Within 0.0-6.0C? Y / N
	Uncorrected Temp:	IR Correction Factor: + / -	Final Recorded Temp: Within 0.0-6.0C? Y / N
Suspected Hazard Information		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?		Hazard Class Shipped: UN#: UN2910 , Is the Radioactive Shipment Survey Compliant? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
B) Did the client designate the samples are to be received as radioactive?		COC notation or radioactive stickers on containers equal client designation. <input checked="" type="checkbox"/>	
C) Did the RSO classify the samples as radioactive?		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 cpm / mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?		COC notation or hazard labels on containers equal client designation. <input checked="" type="checkbox"/>	
E) Did the RSO identify possible hazards?		If D or E is yes, select Hazards below. Flammable Foreign Soil RCRA Asbestos Beryllium Other: <input type="checkbox"/> PCB's	
Sample Receipt Criteria		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
2	Chain of custody documents included with shipment?	Circle Applicable: Client contacted and provided COC COC created upon receipt	
3	Sample containers intact and sealed?	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
4	Samples requiring chemical preservation at proper pH?	Sample ID's and Containers Affected: If Preservation added, List:	
5	Do any samples require Volatile Analysis?	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (if yes, take to VOA Preop) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (if unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:	
6	Samples received within holding time?	ID's and tests affected:	
7	Sample ID's on COC match ID's on bottles?	ID's and containers affected:	
8	Date & time on COC match date & time on bottles?	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)	
9	Number of containers received match number indicated on COC?	Circle Applicable: No container count on COC Other (describe)	
10	Are sample containers identifiable as GEL provided by use of GEL labels?		
11	COC form is properly signed in relinquished/received sections?	Circle Applicable: Not relinquished Other (describe)	
Comments (Use Continuation Form if needed):			

Laboratory Certifications

List of current GEL Certifications as of 22 September 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-137
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Dominion Energy
SDG #: 592596

Product: Determination of Metals by ICP-MS

Analytical Method: EPA 200.8 SC_NPDES

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2314847

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: EPA 245.1/245.2

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2315615

Preparation Method: EPA 200.2

Preparation Procedure: GL-MA-E-016 REV# 18

Preparation Batch: 2314845

Preparation Method: EPA 245.1/245.2 Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2315614

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
592596001	MW-AP-01A-2022Q3
592596002	FBLK-WAT-CCR-AP-22301
1205187670	Method Blank (MB)ICP-MS
1205187671	Laboratory Control Sample (LCS)
1205187674	592596001(MW-AP-01A-2022Q3L) Serial Dilution (SD)
1205187672	592596001(MW-AP-01A-2022Q3D) Sample Duplicate (DUP)
1205187673	592596001(MW-AP-01A-2022Q3S) Matrix Spike (MS)
1205189376	Method Blank (MB)CVAA
1205189377	Laboratory Control Sample (LCS)
1205189383	592621001(NonSDGL) Serial Dilution (SD)
1205189381	592621001(NonSDGD) Sample Duplicate (DUP)
1205189382	592621001(NonSDGS) Matrix Spike (MS)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 592596 GEL Work Order: 592596

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Alan Stanley

Date: 21 SEP 2022

Title: Team Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 592596

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 592596001

BASIS: As Received

DATE COLLECTED 08-SEP-22

CLIENT ID: MW-AP-01A-2022Q3

LEVEL: Low

DATE RECEIVED 09-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7440-39-3	Barium	53.7	ug/L		0.500	2.00	2.00	1	MS	SKJ	09/17/22 14:27	220917-2	2314847
7440-41-7	Beryllium	0.233	ug/L	J	0.200	0.500	0.500	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7440-42-8	Boron	16.5	ug/L		4.00	15.0	15.0	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/17/22 14:27	220917-2	2314847
7440-70-2	Calcium	489	ug/L		30.0	100	100	1	MS	SKJ	09/20/22 12:35	220920-4	2314847
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7440-48-4	Cobalt	0.506	ug/L	J	0.100	1.00	1.00	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7439-92-1	Lead	1.20	ug/L	J	0.500	2.00	2.00	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	JP2	09/14/22 09:32	091422W1-5	2315615
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	1.00	1.00	1	MS	SKJ	09/20/22 10:47	220920-3	2314847
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/16/22 19:54	220916-1	2314847
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/16/22 19:54	220916-1	2314847

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2314847	2314845	EPA 200.2	50	mL	50	mL	09/12/22	CD3
2315615	2315614	EPA 245.1/245.2 Prep	20	mL	20	mL	09/13/22	RM4

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 592596

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:592596002

BASIS: As Received

DATE COLLECTED 08-SEP-22

CLIENT ID: FBLK-WAT-CCR-AP-2230

LEVEL: Low

DATE RECEIVED 09-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7440-39-3	Barium	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/17/22 14:44	220917-2	2314847
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7440-42-8	Boron	4.00	ug/L	U	4.00	15.0	15.0	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/17/22 14:44	220917-2	2314847
7440-70-2	Calcium	30.0	ug/L	U	30.0	100	100	1	MS	SKJ	09/20/22 12:45	220920-4	2314847
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7439-97-6	Mercury	0.0670	ug/L	U	0.0670	0.200	0.200	1	AV	JP2	09/14/22 09:34	091422W1-5	2315615
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	1.00	1.00	1	MS	SKJ	09/20/22 10:59	220920-3	2314847
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/16/22 20:11	220916-1	2314847
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/16/22 20:11	220916-1	2314847

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2314847	2314845	EPA 200.2	50	mL	50	mL	09/12/22	CD3
2315615	2315614	EPA 245.1/245.2 Prep	20	mL	20	mL	09/13/22	RM4

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.05	ug/L	5	ug/L	101	95.0 – 105.0	AV	14-SEP-22 09:20	091422W1-5
	Antimony	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Arsenic	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Beryllium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Boron	103	ug/L	100	ug/L	102.6	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Chromium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Cobalt	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Lead	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Lithium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Selenium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Thallium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	16-SEP-22 18:29	220916-1
	Barium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	17-SEP-22 13:02	220917-2
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	17-SEP-22 13:02	220917-2
	Molybdenum	52.5	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	20-SEP-22 10:24	220920-3
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	MS	20-SEP-22 12:18	220920-4
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.7	90.0 – 110.0	AV	14-SEP-22 09:25	091422W1-5
	Antimony	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Arsenic	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Beryllium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Boron	97.5	ug/L	100	ug/L	97.5	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Chromium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Cobalt	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Lead	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Lithium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Thallium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	16-SEP-22 18:47	220916-1
	Barium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	17-SEP-22 13:20	220917-2
	Cadmium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	17-SEP-22 13:20	220917-2
	Molybdenum	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	20-SEP-22 10:36	220920-3
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	MS	20-SEP-22 12:27	220920-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV02										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	14-SEP-22 09:37	091422W1-5
	Antimony	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Beryllium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Boron	98.9	ug/L	100	ug/L	98.9	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Chromium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Cobalt	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Lead	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Lithium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Selenium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Thallium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	16-SEP-22 18:57	220916-1
	Barium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	17-SEP-22 13:30	220917-2
	Cadmium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	17-SEP-22 13:30	220917-2
	Molybdenum	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	20-SEP-22 11:10	220920-3
	Calcium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	MS	20-SEP-22 12:53	220920-4
CCV03										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	14-SEP-22 10:15	091422W1-5
	Antimony	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Arsenic	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Beryllium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Boron	94.9	ug/L	100	ug/L	94.9	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Chromium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Cobalt	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Lead	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Lithium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Selenium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	16-SEP-22 19:39	220916-1
	Barium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	17-SEP-22 14:12	220917-2
	Cadmium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	17-SEP-22 14:12	220917-2
CCV04										
	Mercury	5.08	ug/L	5	ug/L	101.6	90.0 – 110.0	AV	14-SEP-22 10:36	091422W1-5

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Antimony	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Arsenic	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Beryllium	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Boron	95.9	ug/L	100	ug/L	95.9	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Chromium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Cobalt	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Lead	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Lithium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Selenium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Thallium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	16-SEP-22 20:25	220916-1
	Barium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	17-SEP-22 14:58	220917-2
	Cadmium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	17-SEP-22 14:58	220917-2

*Analytical Methods:

MS EPA 200.8 SC_NPDES

AV EPA 245.1/245.2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01	Mercury	.213	ug/L	.2	ug/L	106.5	70.0 – 130.0	AV	14-SEP-22 09:24	091422W1-5
	Antimony	3.07	ug/L	3	ug/L	102.4	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Arsenic	4.93	ug/L	5	ug/L	98.6	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Beryllium	.596	ug/L	.5	ug/L	119.2	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Boron	17.5	ug/L	15	ug/L	116.3	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Chromium	9.96	ug/L	10	ug/L	99.6	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Cobalt	1.06	ug/L	1	ug/L	105.9	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Lead	2.12	ug/L	2	ug/L	105.9	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Lithium	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Selenium	5.41	ug/L	5	ug/L	108.2	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Thallium	2.06	ug/L	2	ug/L	102.8	70.0 – 130.0	MS	16-SEP-22 18:36	220916-1
	Barium	4.13	ug/L	4	ug/L	103.3	70.0 – 130.0	MS	17-SEP-22 13:09	220917-2
	Cadmium	1.04	ug/L	1	ug/L	103.8	70.0 – 130.0	MS	17-SEP-22 13:09	220917-2
	Molybdenum	1.06	ug/L	1	ug/L	105.7	70.0 – 130.0	MS	20-SEP-22 10:29	220920-3
	Calcium	252	ug/L	200	ug/L	126.2	70.0 – 130.0	MS	20-SEP-22 12:21	220920-4
CRDL02	Mercury	.216	ug/L	.2	ug/L	108	70.0 – 130.0	AV	14-SEP-22 09:36	091422W1-5
	Antimony	3.2	ug/L	3	ug/L	106.5	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Arsenic	5.1	ug/L	5	ug/L	102	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Beryllium	.583	ug/L	.5	ug/L	116.6	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Boron	18.6	ug/L	15	ug/L	123.8	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Chromium	10.4	ug/L	10	ug/L	103.8	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Cobalt	1.08	ug/L	1	ug/L	107.6	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Lead	2.14	ug/L	2	ug/L	107.1	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Lithium	11.1	ug/L	10	ug/L	110.8	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Selenium	4.72	ug/L	5	ug/L	94.5	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Thallium	2.07	ug/L	2	ug/L	103.6	70.0 – 130.0	MS	16-SEP-22 19:29	220916-1
	Barium	4.1	ug/L	4	ug/L	102.6	70.0 – 130.0	MS	17-SEP-22 14:02	220917-2
	Cadmium	1.04	ug/L	1	ug/L	104	70.0 – 130.0	MS	17-SEP-22 14:02	220917-2
	Molybdenum	1.01	ug/L	1	ug/L	100.9	70.0 – 130.0	MS	20-SEP-22 11:02	220920-3
	Calcium	239	ug/L	200	ug/L	119.6	70.0 – 130.0	MS	20-SEP-22 12:47	220920-4

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL03										
	Mercury	.225	ug/L	.2	ug/L	112.5	70.0 – 130.0	AV	14-SEP-22 10:13	091422W1-5
	Antimony	3.08	ug/L	3	ug/L	102.5	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Arsenic	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Beryllium	.525	ug/L	.5	ug/L	105	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Boron	16.8	ug/L	15	ug/L	111.7	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Chromium	10.2	ug/L	10	ug/L	102.4	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Cobalt	1.08	ug/L	1	ug/L	107.6	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Lead	2.15	ug/L	2	ug/L	107.6	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Lithium	11.2	ug/L	10	ug/L	111.8	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Selenium	4.81	ug/L	5	ug/L	96.2	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Thallium	2.07	ug/L	2	ug/L	103.5	70.0 – 130.0	MS	16-SEP-22 20:15	220916-1
	Barium	4.12	ug/L	4	ug/L	103	70.0 – 130.0	MS	17-SEP-22 14:48	220917-2
	Cadmium	1.01	ug/L	1	ug/L	100.8	70.0 – 130.0	MS	17-SEP-22 14:48	220917-2

***Analytical Methods:**

MS	EPA 200.8 SC_NPDES
AV	EPA 245.1/245.2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 592596

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	14-SEP-22 09:22	091422W1-5
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	16-SEP-22 18:33	220916-1
	Boron	6.66	+/-7.5	B	4.0	15.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	16-SEP-22 18:33	220916-1
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	16-SEP-22 18:33	220916-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	17-SEP-22 13:05	220917-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	17-SEP-22 13:05	220917-2
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 10:26	220920-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	20-SEP-22 12:19	220920-4
CCB01										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	14-SEP-22 09:27	091422W1-5
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	16-SEP-22 18:50	220916-1
	Boron	4.5	+/-7.5	B	4.0	15.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	16-SEP-22 18:50	220916-1
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	16-SEP-22 18:50	220916-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	17-SEP-22 13:23	220917-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	17-SEP-22 13:23	220917-2
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 10:39	220920-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	20-SEP-22 12:29	220920-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 592596

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB02										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	14-SEP-22 09:39	091422W1-5
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	16-SEP-22 19:01	220916-1
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Cobalt	0.142	+/-0.5	B	0.1	1.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Lead	0.661	+/-1	B	0.5	2.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	16-SEP-22 19:01	220916-1
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	16-SEP-22 19:01	220916-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	17-SEP-22 13:34	220917-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	17-SEP-22 13:34	220917-2
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 11:12	220920-3
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	20-SEP-22 12:55	220920-4
CCB03										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	14-SEP-22 10:17	091422W1-5
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	16-SEP-22 19:43	220916-1
	Boron	4.65	+/-7.5	B	4.0	15.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	16-SEP-22 19:43	220916-1
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	16-SEP-22 19:43	220916-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	17-SEP-22 14:16	220917-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	17-SEP-22 14:16	220917-2
CCB04										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	14-SEP-22 10:38	091422W1-5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 592596

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	16-SEP-22 20:29	220916-1
	Boron	4.11	+/-7.5	B	4.0	15.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	16-SEP-22 20:29	220916-1
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	16-SEP-22 20:29	220916-1
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	17-SEP-22 15:02	220917-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	17-SEP-22 15:02	220917-2

***Analytical Methods:**

MS	EPA 200.8 SC_NPDES
AV	EPA 245.1/245.2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 592596
Contract: DMNN00101
Matrix: GW

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205187670	Antimony	0.600	ug/L	+/-1	U	MS	0.600	2.00
	Arsenic	1.66	ug/L	+/-2.5	U	MS	1.66	5.00
	Barium	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Beryllium	0.200	ug/L	+/-0.25	U	MS	0.200	0.500
	Boron	4.00	ug/L	+/-7.5	U	MS	4.00	15.0
	Cadmium	0.0300	ug/L	+/-0.05	U	MS	0.0300	0.100
	Calcium	30.0	ug/L	+/-50	U	MS	30.0	100
	Chromium	1.00	ug/L	+/-1.5	U	MS	1.00	3.00
	Cobalt	0.100	ug/L	+/-0.5	U	MS	0.100	1.00
	Lead	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Lithium	2.00	ug/L	+/-5	U	MS	2.00	10.0
	Molybdenum	0.167	ug/L	+/-0.5	U	MS	0.167	1.00
	Selenium	1.50	ug/L	+/-2.5	U	MS	1.50	5.00
	Thallium	0.125	ug/L	+/-0.25	U	MS	0.125	0.500
1205189376	Mercury	0.0670	ug/L	+/-0.1	U	AV	0.0670	0.200

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-4-
Interference Check Sample

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.206	ug/L					16-SEP-22 18:40	220916-1
	Arsenic	0.201	ug/L					16-SEP-22 18:40	220916-1
	Beryllium	0.011	ug/L					16-SEP-22 18:40	220916-1
	Boron	3.88	ug/L					16-SEP-22 18:40	220916-1
	Chromium	0.75	ug/L					16-SEP-22 18:40	220916-1
	Cobalt	0.988	ug/L					16-SEP-22 18:40	220916-1
	Lead	0.508	ug/L					16-SEP-22 18:40	220916-1
	Lithium	0.037	ug/L					16-SEP-22 18:40	220916-1
	Selenium	0.364	ug/L					16-SEP-22 18:40	220916-1
	Thallium	0.027	ug/L					16-SEP-22 18:40	220916-1
ICSA01									
	Antimony	19.8	ug/L	20	ug/L	98.8	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Beryllium	18.3	ug/L	20	ug/L	91.3	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Boron	22.1	ug/L	20	ug/L	111	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Chromium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Cobalt	21.1	ug/L	21.05	ug/L	100	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Lead	22.7	ug/L	20	ug/L	113	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Lithium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Selenium	18.3	ug/L	20	ug/L	91.5	80.0 - 120.0	16-SEP-22 18:43	220916-1
	Thallium	22.0	ug/L	20	ug/L	110	80.0 - 120.0	16-SEP-22 18:43	220916-1
ICSA02									
	Antimony	0.32	ug/L					16-SEP-22 19:32	220916-1
	Arsenic	0.237	ug/L					16-SEP-22 19:32	220916-1
	Beryllium	0.023	ug/L					16-SEP-22 19:32	220916-1
	Boron	4.5	ug/L					16-SEP-22 19:32	220916-1
	Chromium	0.76	ug/L					16-SEP-22 19:32	220916-1
	Cobalt	0.953	ug/L					16-SEP-22 19:32	220916-1
	Lead	0.523	ug/L					16-SEP-22 19:32	220916-1
	Lithium	0.064	ug/L					16-SEP-22 19:32	220916-1

METALS
-4-
Interference Check Sample

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Selenium	0.413	ug/L					16-SEP-22 19:32	220916-1
	Thallium	0.037	ug/L					16-SEP-22 19:32	220916-1
ICSAB02									
	Antimony	20.0	ug/L	20	ug/L	99.8	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Arsenic	20.2	ug/L	20	ug/L	101	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Beryllium	18.0	ug/L	20	ug/L	90	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Boron	21.0	ug/L	20	ug/L	105	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Chromium	21.1	ug/L	20	ug/L	105	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Cobalt	21.1	ug/L	21.05	ug/L	100	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Lead	22.3	ug/L	20	ug/L	111	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Lithium	21.1	ug/L	20	ug/L	106	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Selenium	18.7	ug/L	20	ug/L	93.4	80.0 – 120.0	16-SEP-22 19:36	220916-1
	Thallium	21.7	ug/L	20	ug/L	108	80.0 – 120.0	16-SEP-22 19:36	220916-1
ICSA03									
	Antimony	0.257	ug/L					16-SEP-22 20:18	220916-1
	Arsenic	0.285	ug/L					16-SEP-22 20:18	220916-1
	Beryllium	0.016	ug/L					16-SEP-22 20:18	220916-1
	Boron	3.7	ug/L					16-SEP-22 20:18	220916-1
	Chromium	0.749	ug/L					16-SEP-22 20:18	220916-1
	Cobalt	0.986	ug/L					16-SEP-22 20:18	220916-1
	Lead	0.5	ug/L					16-SEP-22 20:18	220916-1
	Lithium	0.057	ug/L					16-SEP-22 20:18	220916-1
	Selenium	0.449	ug/L					16-SEP-22 20:18	220916-1
	Thallium	0.027	ug/L					16-SEP-22 20:18	220916-1
ICSAB03									
	Antimony	20.1	ug/L	20	ug/L	101	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Beryllium	18.8	ug/L	20	ug/L	93.8	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Boron	21.5	ug/L	20	ug/L	107	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Chromium	21.9	ug/L	20	ug/L	109	80.0 – 120.0	16-SEP-22 20:22	220916-1

METALS
-4-
Interference Check Sample

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	21.3	ug/L	21.05	ug/L	101	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Lead	22.6	ug/L	20	ug/L	113	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Lithium	21.3	ug/L	20	ug/L	106	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Selenium	18.9	ug/L	20	ug/L	94.7	80.0 – 120.0	16-SEP-22 20:22	220916-1
	Thallium	21.8	ug/L	20	ug/L	109	80.0 – 120.0	16-SEP-22 20:22	220916-1

METALS
-4-
Interference Check Sample

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Barium	0.285	ug/L					17-SEP-22 13:13	220917-2
	Cadmium	0.348	ug/L					17-SEP-22 13:13	220917-2
ICSAB01									
	Barium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	17-SEP-22 13:16	220917-2
	Cadmium	18.8	ug/L	20.83	ug/L	90.2	80.0 – 120.0	17-SEP-22 13:16	220917-2
ICSA02									
	Barium	0.22	ug/L					17-SEP-22 14:05	220917-2
	Cadmium	0.392	ug/L					17-SEP-22 14:05	220917-2
ICSAB02									
	Barium	23.7	ug/L	20	ug/L	118	80.0 – 120.0	17-SEP-22 14:09	220917-2
	Cadmium	19.0	ug/L	20.83	ug/L	91.2	80.0 – 120.0	17-SEP-22 14:09	220917-2
ICSA03									
	Barium	0.202	ug/L					17-SEP-22 14:51	220917-2
	Cadmium	0.382	ug/L					17-SEP-22 14:51	220917-2
ICSAB03									
	Barium	23.7	ug/L	20	ug/L	118	80.0 – 120.0	17-SEP-22 14:55	220917-2
	Cadmium	18.9	ug/L	20.83	ug/L	90.7	80.0 – 120.0	17-SEP-22 14:55	220917-2

METALS
-4-
Interference Check Sample

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Molybdenum	1990	ug/L	2000	ug/L	99.7	80.0 – 120.0	20-SEP-22 10:31	220920-3
ICSAB01	Molybdenum	1990	ug/L	2000	ug/L	99.5	80.0 – 120.0	20-SEP-22 10:34	220920-3
ICSA02	Molybdenum	2030	ug/L	2000	ug/L	101	80.0 – 120.0	20-SEP-22 11:05	220920-3
ICSAB02	Molybdenum	2020	ug/L	2000	ug/L	101	80.0 – 120.0	20-SEP-22 11:07	220920-3

METALS
-4-
Interference Check Sample

SDG No: 592596

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Calcium	108000	ug/L	100000	ug/L	108	80.0 – 120.0	20-SEP-22 12:23	220920-4
ICSAB01	Calcium	99800	ug/L	100000	ug/L	99.8	80.0 – 120.0	20-SEP-22 12:25	220920-4
ICSA02	Calcium	109000	ug/L	100000	ug/L	109	80.0 – 120.0	20-SEP-22 12:49	220920-4
ICSAB02	Calcium	105000	ug/L	100000	ug/L	105	80.0 – 120.0	20-SEP-22 12:51	220920-4

METALS

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Matrix Spike Summary

SDG NO. 592596 Client ID: MW-AP-01A-2022Q3S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 592596001 Spike ID: 1205187673

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Antimony	ug/L	75-125	51.3		0.600	U	50.0	102		MS
Arsenic	ug/L	75-125	51.8		1.66	U	50.0	103		MS
Barium	ug/L	75-125	106		53.7		50.0	105		MS
Beryllium	ug/L	75-125	56.3		0.233	B	50.0	112		MS
Boron	ug/L	75-125	118		16.5		100	102		MS
Cadmium	ug/L	75-125	51.0		0.0300	U	50.0	102		MS
Calcium	ug/L	75-125	2690		489		2000	110		MS
Chromium	ug/L	75-125	51.8		1.00	U	50.0	103		MS
Cobalt	ug/L	75-125	53.4		0.506	B	50.0	106		MS
Lead	ug/L	75-125	53.4		1.20	B	50.0	104		MS
Lithium	ug/L	75-125	55.9		2.00	U	50.0	108		MS
Molybdenum	ug/L	75-125	52.4		0.167	U	50.0	105		MS
Selenium	ug/L	75-125	51.2		1.50	U	50.0	101		MS
Thallium	ug/L	75-125	50.7		0.125	U	50.0	101		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

-5a-

Matrix Spike Summary

SDG NO. 592596 Client ID: WST41-22-258088S

Contract: DMNN00101 Level: Low

Matrix: WATER % Solids:

Sample ID: 592621001 Spike ID: 1205189382

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	75-125	2.58		0.0870	B	2.00	124		AV

*Analytical Methods:

AV EPA 245.1/245.2

Metals
-6-
Duplicate Sample Summary

SDG No.: 592596

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-01A-2022Q3D

Matrix: GROUND WATER

Level: Low

Sample ID: 592596001

Duplicate ID: 1205187672

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	ug/L		0.600 U		0.600 U				MS
Arsenic	ug/L		1.66 U		1.66 U				MS
Barium	ug/L	+/-20%	53.7		53.9		.467		MS
Beryllium	ug/L	+/-1	0.233 B		0.233 B		0		MS
Boron	ug/L	+/-30	16.5		14.6 B		11.9		MS
Cadmium	ug/L		0.0300 U		0.0300 U				MS
Calcium	ug/L	+/-200	489		515		5.24		MS
Chromium	ug/L		1.00 U		1.00 U				MS
Cobalt	ug/L	+/-2	0.506 B		0.491 B		3.01		MS
Lead	ug/L	+/-4	1.20 B		1.16 B		3.49		MS
Lithium	ug/L		2.00 U		2.00 U				MS
Molybdenum	ug/L		0.167 U		0.270 B		200		MS
Selenium	ug/L		1.50 U		1.50 U				MS
Thallium	ug/L		0.125 U		0.125 U				MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
-6-
Duplicate Sample Summary

SDG No.: 592596

Lab Code: GEL

Contract: DMNN00101

Client ID: WST41-22-258088D

Matrix: WATER

Level: Low

Sample ID: 592621001

Duplicate ID: 1205189381

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/L	+/- .4	0.0870	B	0.0900	B	3.39		AV

*Analytical Methods:
 AV EPA 245.1/245.2

METALS

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Laboratory Control Sample Summary

SDG NO. 592596

Contract: DMNN00101

Aqueous LCS Source: Enviromental Express

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205187671								
	Antimony	ug/L	50.0	52.0		104	85-115	MS
	Arsenic	ug/L	50.0	52.9		106	85-115	MS
	Barium	ug/L	50.0	53.8		108	85-115	MS
	Beryllium	ug/L	50.0	53.1		106	85-115	MS
	Boron	ug/L	100	103		103	85-115	MS
	Cadmium	ug/L	50.0	54.1		108	85-115	MS
	Calcium	ug/L	2000	2250		112	85-115	MS
	Chromium	ug/L	50.0	52.8		106	85-115	MS
	Cobalt	ug/L	50.0	51.7		103	85-115	MS
	Lead	ug/L	50.0	53.4		107	85-115	MS
	Lithium	ug/L	50.0	54.3		109	80-120	MS
	Molybdenum	ug/L	50.0	53.2		106	85-115	MS
	Selenium	ug/L	50.0	52.5		105	85-115	MS
	Thallium	ug/L	50.0	51.9		104	85-115	MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Laboratory Control Sample Summary

SDG NO. 592596

Contract: DMNN00101

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205189377	Mercury	ug/L	2.00	2.16		108	85-115	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

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Serial Dilution Sample Summary

SDG NO. 592596 Client ID: MW-AP-01A-2022Q3L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 592596001 Serial Dilution ID: 1205187674

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Antimony	.6	U	3	U				MS
Arsenic	1.66	U	8.3	U				MS
Barium	53.7		51.5		3.991			MS
Beryllium	.233	B	1	U	73.82			MS
Boron	16.5		43.4	B	163.848			MS
Cadmium	.03	U	.15	U				MS
Calcium	489		503		2.89			MS
Chromium	1	U	5	U				MS
Cobalt	.506	B	.725	B	43.281			MS
Lead	1.2	B	2.5	U	18.729			MS
Lithium	2	U	10	U				MS
Molybdenum	.167	U	.835	U				MS
Selenium	1.5	U	7.5	U				MS
Thallium	.125	U	.625	U				MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Serial Dilution Sample Summary

SDG NO. 592596 Client ID: WST41-22-258088L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 592621001 Serial Dilution ID: 1205189383

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.087	B	.335	U	124.138			AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 592596

Method Type: MS

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2314845							
1205187670	MB for batch 2314845	MB	G	12-SEP-22	50mL	50mL	
1205187671	LCS for batch 2314845	LCS	G	12-SEP-22	50mL	50mL	
1205187673	MW-AP-01A-2022Q3S	MS	G	12-SEP-22	50mL	50mL	
1205187672	MW-AP-01A-2022Q3D	DUP	G	12-SEP-22	50mL	50mL	
592596001	MW-AP-01A-2022Q3	SAMPLE	G	12-SEP-22	50mL	50mL	
592596002	FBLK-WAT-CCR-AP-22301	SAMPLE	G	12-SEP-22	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 592596

Method Type: AV

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number	2315614						
1205189376	MB for batch 2315614	MB	G	13-SEP-22	20mL	20mL	
1205189377	LCS for batch 2315614	LCS	G	13-SEP-22	20mL	20mL	
1205189382	WST41-22-258088S	MS	W	13-SEP-22	20mL	20mL	
1205189381	WST41-22-258088D	DUP	W	13-SEP-22	20mL	20mL	
592596001	MW-AP-01A-2022Q3	SAMPLE	G	13-SEP-22	20mL	20mL	
592596002	FBLK-WAT-CCR-AP-22301	SAMPLE	G	13-SEP-22	20mL	20mL	

General Chem Analysis

Case Narrative

**General Chemistry
Technical Case Narrative
Dominion Energy
SDG #: 592596**

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2315794

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
592596001	MW-AP-01A-2022Q3
592596002	FBLK-WAT-CCR-AP-22301
1205189764	Method Blank (MB)
1205189765	Laboratory Control Sample (LCS)
1205189766	592607004(MW-FGD-04-2022Q3) Sample Duplicate (DUP)
1205189767	592607004(MW-FGD-04-2022Q3) Post Spike (PS)
1205189768	592592001(MW-LF-22-2022Q3) Sample Duplicate (DUP)
1205189769	592592001(MW-LF-22-2022Q3) Post Spike (PS)

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

Data Summary:

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

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205189767 (MW-FGD-04-2022Q3PS)	114* (90%-110%)

Technical Information

Sample Dilutions

The following samples 1205189768 (MW-LF-22-2022Q3DUP) and 1205189769 (MW-LF-22-2022Q3PS) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Sample Re-analysis

Samples 1205189764 (MB), 1205189765 (LCS), 1205189768 (MW-LF-22-2022Q3DUP) and 1205189769

(MW-LF-22-2022Q3PS) were re-analyzed due to CCB failure. The reanalysis data with passing instrument QC was reported. Sample 1205189764 (MB) was re-analyzed due to (its) proximity to an overrange sample. The results from the reanalysis are reported. Sample 1205189764 (MB) was re-analyzed to verify the result.

Miscellaneous Information

Manual Integrations

Sample 1205189766 (MW-FGD-04-2022Q3DUP) was manually integrated to correctly position the baseline as set in the calibration standards.

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Product: Solids, Total Dissolved
Analytical Method: SM 2540C
Analytical Procedure: GL-GC-E-001 REV# 19
Analytical Batch: 2316241

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
592596001	MW-AP-01A-2022Q3
592596002	FBLK-WAT-CCR-AP-22301
1205190598	Method Blank (MB)
1205190599	Laboratory Control Sample (LCS)
1205190600	592605003(MW-3-2022Q3) Sample Duplicate (DUP)
1205190601	592850001(NonSDG) Sample Duplicate (DUP)
1205190602	592885002(NonSDG) Sample Duplicate (DUP)

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

Data Summary:

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

Quality Control (QC) Information

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205190602 (Non SDG 592885002DUP)	5.18* (0%-5%)

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 592596 GEL Work Order: 592596

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Aubrey Kingsbury

Date: 22 SEP 2022

Title: Team Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 22, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	MW-AP-01A-2022Q3	Project:	DMNN00101
Sample ID:	592596001	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	08-SEP-22 10:30		
Receive Date:	09-SEP-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		5.75	0.0670	0.200	mg/L		1	JLD1	09/13/22	2217	2315794	1
Fluoride	J	0.0652	0.0330	0.100	mg/L		1					
Sulfate	J	0.307	0.133	0.400	mg/L		1					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids	J	8.00	2.38	10.0	mg/L			CH6	09/14/22	1048	2316241	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 22, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22301 Project: DMNN00101
Sample ID: 592596002 Client ID: DMNN001
Matrix: GW
Collect Date: 08-SEP-22 10:45
Receive Date: 09-SEP-22
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.453	0.0670	0.200	mg/L		1	JLD1	09/13/22	2248	2315794	1
Fluoride	J	0.0505	0.0330	0.100	mg/L		1					
Sulfate	J	0.207	0.133	0.400	mg/L		1					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/14/22	1048	2316241	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SM 2540C	

Notes:

Column headers are defined as follows:

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

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: September 22, 2022

Page 1 of 3

Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia

Contact: Kelly Hicks

Workorder: 592596

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2315794										
QC1205189766	592607004	DUP									
Chloride		8.27		8.14	mg/L	1.56		(0%-20%)	JLD1	09/14/22	01:22
Fluoride	J	0.0556	J	0.0526	mg/L	5.55	^	(+/-2)			
Sulfate		3.27		3.31	mg/L	1.39		(0%-20%)			
QC1205189768	592592001	DUP									
Chloride		9.99		10.1	mg/L	0.752		(0%-20%)		09/14/22	09:36
Fluoride	J	0.0707	J	0.0660	mg/L	6.88	^	(+/-2)		09/15/22	21:30
Sulfate		1.06		1.05	mg/L	1.51	^	(+/-8)			
QC1205189765	LCS										
Chloride	5.00			4.78	mg/L			95.6 (90%-110%)		09/15/22	20:28
Fluoride	2.50			2.61	mg/L			104 (90%-110%)			
Sulfate	10.0			10.9	mg/L			109 (90%-110%)			
QC1205189764	MB										
Chloride			U	ND	mg/L					09/14/22	08:03
Fluoride			U	ND	mg/L						
Sulfate			J	0.202	mg/L						
QC1205189767	592607004	PS									
Chloride	5.00	8.27		14.0	mg/L			114* (90%-110%)		09/14/22	01:53

GEL LABORATORIES LLC

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

QC Summary

Workorder: 592596

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2315794										
Fluoride	2.50	J	0.0556	2.67	mg/L		105	(90%-110%)	JLD1	09/14/22	01:53
Sulfate	10.0		3.27	13.1	mg/L		98.3	(90%-110%)			
QC1205189769	592592001 PS										
Chloride	5.00		5.00	10.5	mg/L		110	(90%-110%)		09/14/22	10:07
Fluoride	2.50	J	0.0707	2.67	mg/L		104	(90%-110%)		09/15/22	22:00
Sulfate	10.0		1.06	10.5	mg/L		94.1	(90%-110%)			
Solids Analysis											
Batch	2316241										
QC1205190600	592605003 DUP										
Total Dissolved Solids			513	516	mg/L	0.583		(0%-5%)	CH6	09/14/22	10:48
QC1205190601	592850001 DUP										
Total Dissolved Solids			367	359	mg/L	2.2		(0%-5%)		09/14/22	10:48
QC1205190602	592885002 DUP										
Total Dissolved Solids			99.0	94.0	mg/L	5.18*		(0%-5%)		09/14/22	10:48
QC1205190599	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		09/14/22	10:48
QC1205190598	MB										
Total Dissolved Solids			U	ND	mg/L					09/14/22	10:48

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.

GEL LABORATORIES LLC

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QC Summary

Workorder: 592596

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
E											
H											
J											
J											
N/A											
N1											
ND											
NJ											
Q											
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 the 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.

Radiological Analysis

Case Narrative

**Radiochemistry
Technical Case Narrative
Dominion Energy
SDG #: 592596**

Product: GFPC Ra228, Liquid
Analytical Method: EPA 904.0
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2314937

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
592596001	MW-AP-01A-2022Q3
592596002	FBLK-WAT-CCR-AP-22301
1205187896	Method Blank (MB)
1205187897	592596001(MW-AP-01A-2022Q3) Sample Duplicate (DUP)
1205187898	Laboratory Control Sample (LCS)

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

Data Summary:

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

Product: Lucas Cell, Ra226, Liquid
Analytical Method: EPA 903.1 Modified
Analytical Procedure: GL-RAD-A-008 REV# 15
Analytical Batch: 2314929

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
592596001	MW-AP-01A-2022Q3
592596002	FBLK-WAT-CCR-AP-22301
1205187871	Method Blank (MB)
1205187872	592596001(MW-AP-01A-2022Q3) Sample Duplicate (DUP)
1205187873	592596001(MW-AP-01A-2022Q3) Matrix Spike (MS)
1205187874	Laboratory Control Sample (LCS)

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

Data Summary:

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

Miscellaneous Information

Additional Comments

The matrix spike, 1205187873 (MW-AP-01A-2022Q3MS), aliquot was reduced to conserve sample volume.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 592596 GEL Work Order: 592596

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

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Kate Gellatly

Date: 22 SEP 2022

Title: Analyst I

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 22, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-01A-2022Q3
Sample ID: 592596001
Matrix: GW
Collect Date: 08-SEP-22
Receive Date: 09-SEP-22
Collector: Client

Project: DMNN00101
Client ID: DMNN001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.727	+/-1.16	2.00	+/-1.18	3.00	pCi/L			JE1	09/21/22	0845	2314937	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.50	+/-1.25		+/-1.28		pCi/L		1	NXL1	09/22/22	0835	2314936	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.769	+/-0.469	0.654	+/-0.498	1.00	pCi/L			LXP1	09/19/22	0937	2314929	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2314937	95.1	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 22, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22301

Project: DMNN00101

Sample ID: 592596002

Client ID: DMNN001

Matrix: GW

Collect Date: 08-SEP-22

Receive Date: 09-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.109	+/-0.766	1.47	+/-0.766	3.00	pCi/L			JE1	09/21/22	0846	2314937	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.08	+/-0.908		+/-0.923		pCi/L			NXL1	09/22/22	0835	2314936	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.08	+/-0.489	0.469	+/-0.515	1.00	pCi/L			LXP1	09/19/22	0937	2314929	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2314937	98	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: September 22, 2022
Page 1 of 2

Client : Dominion Energy Services, Inc.
120 Tredegar Street

Contact: Richmond, Virginia 23219
Kelly Hicks

Workorder: 592596

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date Time
Rad Gas Flow									
Batch	2314937								
QC1205187896	MB								
Radium-228			U	0.700	pCi/L			JE1	09/21/2208:45
				Uncert:					
				TPU:					
QC1205187897	592596001	DUP							
Radium-228		U	0.727	1.84	pCi/L				09/21/2208:45
				Uncert:		RPD:	87 (0% - 100%)		
				TPU:		RER:	1.42 (0-2)		
QC1205187898	LCS								
Radium-228	43.9			42.1	pCi/L	REC:	96 (80%-120%)		09/21/2208:45
				Uncert:					
				TPU:					
Rad Ra-226									
Batch	2314929								
QC1205187871	MB								
Radium-226			U	0.196	pCi/L			LXP1	09/19/2210:10
				Uncert:					
				TPU:					
QC1205187872	592596001	DUP							
Radium-226			0.769	0.885	pCi/L				
				Uncert:		RPD:	14 (0% - 100%)		
				TPU:		RER:	0.321 (0-2)		
QC1205187873	592596001	MS							
Radium-226	129		0.769	110	pCi/L	REC:	85 (75%-125%)		
				Uncert:					
				TPU:					
QC1205187874	LCS								
Radium-226	26.6			25.8	pCi/L	REC:	96.9 (80%-120%)		
				Uncert:					
				TPU:					

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 592596

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date	Time
FB										
H										
J										
J										
K										
L										
M										
M										
N										
N/A										
N1										
ND										
NJ										
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.

** Indicates analyte is a surrogate compound.

^ 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.

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.



September 27, 2022

Kelly Hicks
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219

Re: CCR Groundwater Monitoring - Level 1 Package
Work Order: 593108

Dear Kelly Hicks:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 14, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1648.

Sincerely,

Meredith Boddiford
Project Manager

Purchase Order: 50149867
Chain of Custody: 2022140
Enclosures



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Case Narrative

**Receipt Narrative
for
Dominion Energy (50149867)
SDG: 593108**

September 27, 2022

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on September 14, 2022 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

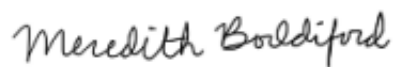
Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
593108001	MW-AP-01-2022Q3
593108002	MW-AP-02-2022Q3
593108003	MW-AP-03-2022Q3
593108004	MW-AP-04-2022Q3
593108005	DU-WAT-CCR-AP-22301
593108006	MW-AP-05-2022Q3
593108007	MW-AP-08-2022Q3
593108008	FBLK-WAT-CCR-AP-22302

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

A handwritten signature in black ink that reads "Meredith Boddiford". The script is cursive and fluid.

Meredith Boddiford
Project Manager

Chain of Custody and Supporting Documentation

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Project Name: Wateree Station Ash Pond CCR 2022Q3
 Address: Wateree, South Carolina
 Collected By: B. Medlin / A. Misunas
 Send Results To: AReed@envstld.com
 Sample ID: 93108
 * For composites - Indicate start and stop date/time

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hh:mm)	QC Code (e)	Field Filtered (e)	Sample Matrix (e)	Radioactive (If yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	Sample Analysis Requested (6) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
MW-AP-01A-2022Q3			N	N	GW	N					
MW-AP-01-2022Q3	9-13-22	1150	N	N	GW	N		4	CL, F ₂ , SO ₄ - EPA 300.0		Note: extra sample is required for sample specific QC
MW-AP-02-2022Q3	9-13-22	1340	N	N	GW	N		4	TDS - SM2540C		
MW-AP-03-2022Q3	9-13-22	1450	N	N	GW	N					
MW-AP-03D-2022Q3			N	N	GW	N					
MW-AP-03D2-2022Q3			N	N	GW	N					
MW-AP-04-2022Q3	9-13-22	1610	N	N	GW	N		4			See attached work order for details
DU-WAT-CCR-AP-22301	9-13-22	/	FD	N	GW	N		4			
FBLK-WAT-CCR-AP-22301			FB	N	AQ	N					
MW-AP-05-2022Q3	9-13-22	1540	N	N	GW	N		4			

Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 Chain of Custody Signatures
 Relinquished By (Signed) _____ Date 9-14-22 Time 1535
 Received by (signed) _____ Date 9-14-22 Time 1535
 Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____

For sample shipping and delivery details, see Sample Receipt & Review form (SRR)
 Chain of Custody Number = Client Determined
 QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal
 Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

KNOWN OR POSSIBLE HAZARDS	Characteristic Hazards	Listed Waste	Other
RCRA Metals As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:
Hg = Mercury Se = Selenium Ag = Silver MR = Misc. RCRA metals	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Project # 416559.0005.0000.5.2
 GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number: 206939
 Phone # 803-258-1528
 Fax # 803-258-1178
 GEL Project Manager: Meredith Boddiford
 GEL Order Number: 593108
 Project Name: Dominion Energy
 Project/Site Name: Wateree Station Ash Pond CCR 2022Q3
 Address: Wateree, South Carolina
 Collected By: B. Medlin / A. Misunas
 Send Results To: AReed@envystd.com
 Sample ID: 993108
 * For composites - indicate start and stop date/time: MS / MSD

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Project # 803-258-1528
 Fax # 803-258-1178
 GEL Project Manager: Meredith Boddiford

Sample ID	*Time Collected (Military) (hhmm)	*Date Collected (mm-dd-yy)	QC Code (e)	Field Filtered (e)	Sample Matrix (e)	Radioactive (If yes, please supply isotopic info.)	Should this sample be considered:	Sample Analysis Requested (6) (Fill in the number of containers for each test)						Comments
								(7) Known or possible Hazards	Total number of containers	CL, FL, SO4 - EPA 300.0	TDS - SM2540C	Total Metals	(see list in comments)	
MW-AP-08-2022Q3	1410	9-13-22	N	N	GW	N		8	2	2	2	2	2	EPA 200.8 - Sb, As, Ba, Be
MW-AP-09-2022Q3			N	N	GW	N								B, Cd, Ca, Cr, Co, Pb, Li,
MW-AP-09D-2022Q3			N	N	GW	N								Mo, Se, Tl
MW-AP-10-2022Q3			N	N	GW	N								EPA 245.1 - Hg
MW-AP-11-2022Q3			N	N	GW	N								
MW-AP-11D-2022Q3			N	N	GW	N								
MW-AP-11D2-2022Q3			N	N	GW	N								
MW-AP-12-2022Q3			N	N	GW	N								See attached work order for details
FBLK-WAT-CCR-AP-22302	1130	9-13-22	FB	N	AQ	N		4	1	1	1	1		
MW-AP-13-2022Q3			N	N	GW	N								

Chain of Custody Signatures
 Relinquished By (Signed) _____ Date _____ Time _____
 Received by (signed) _____ Date _____ Time _____
 TAT Requested: Normal: Rush: _____ Specify: _____
 Fax Results: Yes No
 Delivered: C of A Level 1 Level 2 Level 3 Level 4
 Additional Remarks:

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, IIX = Hexane, ST = Sodium Thiosulfate. If no preservative is added - leave field blank.
 7.) KNOWN OR POSSIBLE HAZARDS
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive
 Listed Waste: LW = Listed Waste (F, K, P and U-listed wastes)
 Waste code(s):
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Misc. RCRA metals
 TSCA Regulated: PCB = Polychlorinated biphenyls
 Other: OT = Other / Unknown
 Description: (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



SAMPLE RECEIPT & REVIEW FORM

Client: DMNN		SDG/AR/COC/Work Order: U-B			
Received By: Thyasia Tatum		Date Received: 9-14-22			
Enter one tracking number per line below.		IR temperature gun # IT2-20			
Enter courier if applicable and no tracking available.		Daily Calibration performed <input checked="" type="radio"/> Y / <input type="radio"/> N			
Uncorrected temperature readings are to the 0.1 degree with final recorded temperatures rounded to the 0.5 degree. Provide individual container details when a cooler requiring 0 <= 60C is identified as out of specification.					
Cooler 1	Uncorrected Temp: 3.1	IR Correction Factor: + / - 0	Final Recorded Temp: 3.0 Within 0.0-6.0C? <input checked="" type="radio"/> Y / <input type="radio"/> N		
Cooler 2	Uncorrected Temp: 3.3	IR Correction Factor: + / - 0	Final Recorded Temp: 3.0 Within 0.0-6.0C? <input checked="" type="radio"/> Y / <input type="radio"/> N		
Cooler 3	Uncorrected Temp: 3.2	IR Correction Factor: + / - 0	Final Recorded Temp: 3.0 Within 0.0-6.0C? <input checked="" type="radio"/> Y / <input type="radio"/> N		
Cooler 4	Uncorrected Temp: 4.2	IR Correction Factor: + / - 0	Final Recorded Temp: 4.0 Within 0.0-6.0C? <input checked="" type="radio"/> Y / <input type="radio"/> N		
Cooler 5	Uncorrected Temp: 4.0	IR Correction Factor: + / - 0	Final Recorded Temp: 4.0 Within 0.0-6.0C? <input checked="" type="radio"/> Y / <input type="radio"/> N		
Cooler 6	Uncorrected Temp: 4.2	IR Correction Factor: + / - 0	Final Recorded Temp: 4.0 Within 0.0-6.0C? <input checked="" type="radio"/> Y / <input type="radio"/> N		
Suspected Hazard Information		Yes	No		
*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.					
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes <input type="checkbox"/> No <input type="checkbox"/>		
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____ PCB's		
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
4	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and Containers Affected: If Preservation added, Lot#: If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)
5	Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
6	Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
7	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and containers affected:
8	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
9	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: No container count on COC Other (describe)
10	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):					

Laboratory Certifications

List of current GEL Certifications as of 27 September 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-137
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Dominion Energy
SDG #: 593108

Product: Determination of Metals by ICP-MS

Analytical Method: EPA 200.8 SC_NPDES

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2316657

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: EPA 245.1/245.2

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2316800

Preparation Method: EPA 200.2

Preparation Procedure: GL-MA-E-016 REV# 18

Preparation Batch: 2316656

Preparation Method: EPA 245.1/245.2 Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2316797

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
593108001	MW-AP-01-2022Q3
593108002	MW-AP-02-2022Q3
593108003	MW-AP-03-2022Q3
593108004	MW-AP-04-2022Q3
593108005	DU-WAT-CCR-AP-22301
593108006	MW-AP-05-2022Q3
593108007	MW-AP-08-2022Q3
593108008	FBLK-WAT-CCR-AP-22302
1205191453	Method Blank (MB) ICP-MS
1205191454	Laboratory Control Sample (LCS)
1205191457	593108007(MW-AP-08-2022Q3L) Serial Dilution (SD)
1205191455	593108007(MW-AP-08-2022Q3D) Sample Duplicate (DUP)
1205191456	593108007(MW-AP-08-2022Q3S) Matrix Spike (MS)
1205193829	593108007(MW-AP-08-2022Q3PS) Post Spike (PS)
1205191754	Method Blank (MB) CVAA
1205191755	Laboratory Control Sample (LCS)
1205191761	593108007(MW-AP-08-2022Q3L) Serial Dilution (SD)
1205191759	593108007(MW-AP-08-2022Q3D) Sample Duplicate (DUP)
1205191760	593108007(MW-AP-08-2022Q3S) Matrix Spike (MS)
1205191762	593108007(MW-AP-08-2022Q3PS) Post Spike (PS)

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

Data Summary:

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

Calibration Information

ICSA/ICSAB Statement

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

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1205191456 (MW-AP-08-2022Q3MS)	Barium	128* (75%-125%)

The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1205191760 (MW-AP-08-2022Q3MS)	Mercury	29.3* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1205191762 (MW-AP-08-2022Q3PS)	Mercury	31.3* (80%-120%)

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 593108001 (MW-AP-01-2022Q3), 593108002 (MW-AP-02-2022Q3), 593108003 (MW-AP-03-2022Q3), 593108004 (MW-AP-04-2022Q3), 593108005 (DU-WAT-CCR-AP-22301), 593108006 (MW-AP-05-2022Q3) and 593108007 (MW-AP-08-2022Q3)-ICP-MS were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	593108						
	001	002	003	004	005	006	007
Arsenic	1X	1X	5X	1X	1X	1X	1X
Boron	20X	10X	10X	20X	20X	5X	5X
Calcium	20X	10X	10X	20X	20X	5X	5X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 593108 GEL Work Order: 593108

The Qualifiers in this report are defined as follows:

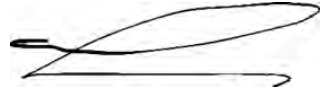
- * A quality control analyte recovery is outside of specified acceptance criteria
- B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Alan Stanley

Date: 26 SEP 2022

Title: Team Leader

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 593108001

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: MW-AP-01-2022Q3

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-39-3	Barium	264	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-42-8	Boron	2590	ug/L		80.0	300	300	20	MS	PRB	09/23/22 23:21	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-70-2	Calcium	81200	ug/L		600	2000	2000	20	MS	PRB	09/23/22 23:21	220923-1	2316657
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:47	091622W1-7	2316800
7439-98-7	Molybdenum	3.99	ug/L		0.167	1.00	1.00	1	MS	SKJ	09/20/22 11:20	220920-3	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 17:32	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 17:32	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:593108002

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: MW-AP-02-2022Q3

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-38-2	Arsenic	69.9	ug/L		1.66	5.00	5.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-39-3	Barium	220	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-42-8	Boron	987	ug/L		40.0	150	150	10	MS	PRB	09/23/22 23:23	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-70-2	Calcium	65200	ug/L		300	1000	1000	10	MS	PRB	09/23/22 23:23	220923-1	2316657
7440-47-3	Chromium	52.8	ug/L		1.00	3.00	3.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-48-4	Cobalt	0.329	ug/L	J	0.100	1.00	1.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7439-93-2	Lithium	7.11	ug/L	J	2.00	10.0	10.0	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:49	091622W1-7	2316800
7439-98-7	Molybdenum	5.60	ug/L		0.167	1.00	1.00	1	MS	SKJ	09/20/22 11:23	220920-3	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 17:36	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 17:36	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:593108003

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: MW-AP-03-2022Q3

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7440-38-2	Arsenic	1080	ug/L		8.30	25.0	25.0	5	MS	SKJ	09/19/22 17:43	220919-2	2316657
7440-39-3	Barium	223	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7440-42-8	Boron	1940	ug/L		40.0	150	150	10	MS	PRB	09/23/22 23:25	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7440-70-2	Calcium	76700	ug/L		300	1000	1000	10	MS	PRB	09/23/22 23:25	220923-1	2316657
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7440-48-4	Cobalt	0.307	ug/L	J	0.100	1.00	1.00	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7439-93-2	Lithium	69.3	ug/L		2.00	10.0	10.0	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:50	091622W1-7	2316800
7439-98-7	Molybdenum	25.1	ug/L		0.167	1.00	1.00	1	MS	SKJ	09/20/22 11:25	220920-3	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 17:40	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 17:40	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:593108004

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: MW-AP-04-2022Q3

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-38-2	Arsenic	33.5	ug/L		1.66	5.00	5.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-39-3	Barium	205	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-42-8	Boron	2370	ug/L		80.0	300	300	20	MS	PRB	09/23/22 23:27	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-70-2	Calcium	145000	ug/L		600	2000	2000	20	MS	PRB	09/23/22 23:27	220923-1	2316657
7440-47-3	Chromium	3.16	ug/L		1.00	3.00	3.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-48-4	Cobalt	0.189	ug/L	J	0.100	1.00	1.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7439-92-1	Lead	0.880	ug/L	J	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:52	091622W1-7	2316800
7439-98-7	Molybdenum	4.69	ug/L		0.167	1.00	1.00	1	MS	SKJ	09/20/22 11:28	220920-3	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 17:47	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 17:47	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 593108005

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: DU-WAT-CCR-AP-22301

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-39-3	Barium	259	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-42-8	Boron	2580	ug/L		80.0	300	300	20	MS	PRB	09/23/22 23:29	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-70-2	Calcium	80800	ug/L		600	2000	2000	20	MS	PRB	09/23/22 23:29	220923-1	2316657
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:54	091622W1-7	2316800
7439-98-7	Molybdenum	3.79	ug/L		0.167	1.00	1.00	1	MS	SKJ	09/20/22 11:35	220920-3	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 17:50	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 17:50	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:593108006

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: MW-AP-05-2022Q3

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-39-3	Barium	170	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-42-8	Boron	471	ug/L		20.0	75.0	75.0	5	MS	PRB	09/23/22 23:35	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-70-2	Calcium	28500	ug/L		150	500	500	5	MS	PRB	09/23/22 23:35	220923-1	2316657
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-48-4	Cobalt	4.86	ug/L		0.100	1.00	1.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:55	091622W1-7	2316800
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	1.00	1.00	1	MS	SKJ	09/20/22 11:38	220920-3	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 18:01	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 18:01	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID: 593108007

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: MW-AP-08-2022Q3

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-38-2	Arsenic	10.5	ug/L		1.66	5.00	5.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-39-3	Barium	172	ug/L	N	0.500	2.00	2.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-41-7	Beryllium	8.72	ug/L		0.200	0.500	0.500	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-42-8	Boron	399	ug/L		20.0	75.0	75.0	5	MS	PRB	09/23/22 23:37	220923-1	2316657
7440-43-9	Cadmium	0.0880	ug/L	J	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-70-2	Calcium	27300	ug/L		150	500	500	5	MS	PRB	09/23/22 23:37	220923-1	2316657
7440-47-3	Chromium	2.75	ug/L	J	1.00	3.00	3.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-48-4	Cobalt	22.1	ug/L		0.100	1.00	1.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7439-93-2	Lithium	16.8	ug/L		2.00	10.0	10.0	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 09:57	091622W1-7	2316800
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	1.00	1.00	1	MS	SKJ	09/20/22 14:14	220920-6	2316657
7782-49-2	Selenium	24.6	ug/L		1.50	5.00	5.00	1	MS	SKJ	09/19/22 18:04	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 18:04	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 593108

CONTRACT: DMNN00101

METHOD TYPE: EPA

SAMPLE ID:593108008

BASIS: As Received

DATE COLLECTED 13-SEP-22

CLIENT ID: FBLK-WAT-CCR-AP-2230

LEVEL: Low

DATE RECEIVED 14-SEP-22

MATRIX: GW

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-36-0	Antimony	0.600	ug/L	U	0.600	2.00	2.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-38-2	Arsenic	1.66	ug/L	U	1.66	5.00	5.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-39-3	Barium	0.500	ug/L	UN	0.500	2.00	2.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-41-7	Beryllium	0.200	ug/L	U	0.200	0.500	0.500	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-42-8	Boron	4.00	ug/L	U	4.00	15.0	15.0	1	MS	PRB	09/23/22 23:47	220923-1	2316657
7440-43-9	Cadmium	0.0300	ug/L	U	0.0300	0.100	0.100	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-70-2	Calcium	30.0	ug/L	U	30.0	100	100	1	MS	PRB	09/23/22 23:47	220923-1	2316657
7440-47-3	Chromium	1.00	ug/L	U	1.00	3.00	3.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-48-4	Cobalt	0.100	ug/L	U	0.100	1.00	1.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7439-92-1	Lead	0.500	ug/L	U	0.500	2.00	2.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7439-93-2	Lithium	2.00	ug/L	U	2.00	10.0	10.0	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7439-97-6	Mercury	0.0670	ug/L	UN	0.0670	0.200	0.200	1	AV	JP2	09/16/22 10:09	091622W1-7	2316800
7439-98-7	Molybdenum	0.167	ug/L	U	0.167	1.00	1.00	1	MS	SKJ	09/20/22 14:27	220920-6	2316657
7782-49-2	Selenium	1.50	ug/L	U	1.50	5.00	5.00	1	MS	SKJ	09/19/22 18:22	220919-2	2316657
7440-28-0	Thallium	0.125	ug/L	U	0.125	0.500	0.500	1	MS	SKJ	09/19/22 18:22	220919-2	2316657

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
2316657	2316656	EPA 200.2	50	mL	50	mL	09/15/22	PC1
2316800	2316797	EPA 245.1/245.2 Prep	20	mL	20	mL	09/15/22	RM4

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.04	ug/L	5	ug/L	100.8	95.0 – 105.0	AV	16-SEP-22 09:05	091622W1-7
	Antimony	45.8	ug/L	50	ug/L	91.5	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Arsenic	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Barium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Beryllium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Cadmium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Chromium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Cobalt	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Lead	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Lithium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Selenium	46.6	ug/L	50	ug/L	93.2	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Thallium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	19-SEP-22 16:50	220919-2
	Molybdenum	52.5	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	20-SEP-22 10:24	220920-3
	Molybdenum	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	20-SEP-22 13:51	220920-6
	Boron	102	ug/L	100	ug/L	101.6	90.0 – 110.0	MS	23-SEP-22 23:04	220923-1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	MS	23-SEP-22 23:04	220923-1
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	90.0 – 110.0	AV	16-SEP-22 09:10	091622W1-7
	Antimony	46	ug/L	50	ug/L	91.9	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Arsenic	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Barium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Beryllium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Cadmium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Chromium	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Cobalt	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Lead	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Lithium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Selenium	47.5	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Thallium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	19-SEP-22 17:08	220919-2
	Molybdenum	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	20-SEP-22 10:36	220920-3
	Molybdenum	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	20-SEP-22 14:04	220920-6

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Boron	98	ug/L	100	ug/L	98	90.0 – 110.0	MS	23-SEP-22 23:13	220923-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	MS	23-SEP-22 23:13	220923-1
CCV02	Mercury	5.17	ug/L	5	ug/L	103.4	90.0 – 110.0	AV	16-SEP-22 09:21	091622W1-7
	Antimony	45.7	ug/L	50	ug/L	91.3	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Arsenic	47.1	ug/L	50	ug/L	94.2	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Barium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Beryllium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Cadmium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Chromium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Cobalt	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Lead	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Lithium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Selenium	45.5	ug/L	50	ug/L	91	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Thallium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	19-SEP-22 17:18	220919-2
	Molybdenum	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	20-SEP-22 11:10	220920-3
	Molybdenum	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	20-SEP-22 14:38	220920-6
	Boron	103	ug/L	100	ug/L	103.4	90.0 – 110.0	MS	23-SEP-22 23:31	220923-1
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	MS	23-SEP-22 23:31	220923-1
CCV03	Mercury	4.89	ug/L	5	ug/L	97.8	90.0 – 110.0	AV	16-SEP-22 09:43	091622W1-7
	Antimony	46.2	ug/L	50	ug/L	92.4	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Arsenic	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Barium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Beryllium	47.9	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Cadmium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Chromium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Cobalt	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Lead	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Lithium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Selenium	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Thallium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	19-SEP-22 17:54	220919-2
	Molybdenum	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	20-SEP-22 11:30	220920-3
	Boron	99.1	ug/L	100	ug/L	99.1	90.0 – 110.0	MS	23-SEP-22 23:53	220923-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	MS	23-SEP-22 23:53	220923-1
CCV04										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 – 110.0	AV	16-SEP-22 10:04	091622W1-7
	Antimony	45	ug/L	50	ug/L	90	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Arsenic	45.7	ug/L	50	ug/L	91.4	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Barium	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Beryllium	46.2	ug/L	50	ug/L	92.4	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Cadmium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Chromium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Cobalt	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Lead	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Lithium	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Selenium	45.3	ug/L	50	ug/L	90.6	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Thallium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	19-SEP-22 18:36	220919-2
	Molybdenum	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	20-SEP-22 12:04	220920-3
CCV05										
	Mercury	5	ug/L	5	ug/L	99.9	90.0 – 110.0	AV	16-SEP-22 10:13	091622W1-7

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
AV EPA 245.1/245.2

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.209	ug/L	.2	ug/L	104.5	70.0 – 130.0	AV	16-SEP-22 09:09	091622W1-7
	Antimony	2.96	ug/L	3	ug/L	98.7	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Arsenic	5.05	ug/L	5	ug/L	101	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Barium	4.25	ug/L	4	ug/L	106.2	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Beryllium	.497	ug/L	.5	ug/L	99.4	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Cadmium	.987	ug/L	1	ug/L	98.7	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Chromium	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Cobalt	1.06	ug/L	1	ug/L	105.5	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Lead	2.07	ug/L	2	ug/L	103.6	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Lithium	10.5	ug/L	10	ug/L	105.3	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Selenium	4.85	ug/L	5	ug/L	97	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Thallium	1.98	ug/L	2	ug/L	99.1	70.0 – 130.0	MS	19-SEP-22 16:57	220919-2
	Molybdenum	1.06	ug/L	1	ug/L	105.7	70.0 – 130.0	MS	20-SEP-22 10:29	220920-3
	Molybdenum	1.05	ug/L	1	ug/L	105.3	70.0 – 130.0	MS	20-SEP-22 13:57	220920-6
	Boron	15.8	ug/L	15	ug/L	105.1	70.0 – 130.0	MS	23-SEP-22 23:08	220923-1
	Calcium	232	ug/L	200	ug/L	116	70.0 – 130.0	MS	23-SEP-22 23:08	220923-1
CRDL02										
	Mercury	.211	ug/L	.2	ug/L	105.5	70.0 – 130.0	AV	16-SEP-22 09:19	091622W1-7
	Antimony	2.98	ug/L	3	ug/L	99.3	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Arsenic	4.83	ug/L	5	ug/L	96.6	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Barium	4.29	ug/L	4	ug/L	107.3	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Beryllium	.543	ug/L	.5	ug/L	108.6	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Cadmium	1.04	ug/L	1	ug/L	104.1	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Chromium	10.7	ug/L	10	ug/L	106.8	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Cobalt	1.09	ug/L	1	ug/L	109.1	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Lead	2.16	ug/L	2	ug/L	107.8	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Lithium	10.7	ug/L	10	ug/L	107.4	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Selenium	4.38	ug/L	5	ug/L	87.7	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Thallium	2.07	ug/L	2	ug/L	103.5	70.0 – 130.0	MS	19-SEP-22 18:25	220919-2
	Molybdenum	1.01	ug/L	1	ug/L	100.9	70.0 – 130.0	MS	20-SEP-22 11:02	220920-3
	Molybdenum	1.11	ug/L	1	ug/L	111.3	70.0 – 130.0	MS	20-SEP-22 14:30	220920-6
	Boron	16.7	ug/L	15	ug/L	111.1	70.0 – 130.0	MS	23-SEP-22 23:55	220923-1

METALS
-2b-
CRDL Standard for ICP & ICPMS

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument ID: HG4,ICPMS14,ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL03	Calcium	226	ug/L	200	ug/L	112.8	70.0 – 130.0	MS	23-SEP-22 23:55	220923-1
	Mercury	.208	ug/L	.2	ug/L	104	70.0 – 130.0	AV	16-SEP-22 10:11	091622W1-7
	Molybdenum	1.01	ug/L	1	ug/L	100.9	70.0 – 130.0	MS	20-SEP-22 11:56	220920-3

***Analytical Methods:**

MS **EPA 200.8 SC_NPDES**
AV **EPA 245.1/245.2**

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 593108

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	16-SEP-22 09:07	091622W1-7
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	19-SEP-22 16:54	220919-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	19-SEP-22 16:54	220919-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	19-SEP-22 16:54	220919-2
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	19-SEP-22 16:54	220919-2
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 10:26	220920-3
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 13:54	220920-6
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	23-SEP-22 23:06	220923-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-SEP-22 23:06	220923-1
CCB01										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	16-SEP-22 09:12	091622W1-7
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	19-SEP-22 17:11	220919-2
	Cadmium	0.033	+/-0.05	B	0.03	0.1	LIQ	MS	19-SEP-22 17:11	220919-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	19-SEP-22 17:11	220919-2
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	19-SEP-22 17:11	220919-2
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 10:39	220920-3
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 14:07	220920-6

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 593108

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	23-SEP-22 23:15	220923-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-SEP-22 23:15	220923-1
CCB02										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	16-SEP-22 09:23	091622W1-7
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	19-SEP-22 17:22	220919-2
	Cadmium	0.033	+/-0.05	B	0.03	0.1	LIQ	MS	19-SEP-22 17:22	220919-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	19-SEP-22 17:22	220919-2
	Thallium	0.125	+/-0.25	U	0.125	0.5	LIQ	MS	19-SEP-22 17:22	220919-2
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 11:12	220920-3
	Molybdenum	0.167	+/-0.5	U	0.167	1.0	LIQ	MS	20-SEP-22 14:40	220920-6
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	23-SEP-22 23:33	220923-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-SEP-22 23:33	220923-1
CCB03										
	Mercury	0.067	+/-1	U	0.067	0.2	LIQ	AV	16-SEP-22 09:45	091622W1-7
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Beryllium	0.2	+/-0.25	U	0.2	0.5	LIQ	MS	19-SEP-22 17:57	220919-2
	Cadmium	0.03	+/-0.05	U	0.03	0.1	LIQ	MS	19-SEP-22 17:57	220919-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Cobalt	0.1	+/-0.5	U	0.1	1.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	19-SEP-22 17:57	220919-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	19-SEP-22 17:57	220919-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 593108

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ug/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M*</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Thallium	0.125	+/- .25	U	0.125	0.5	LIQ	MS	19-SEP-22 17:57	220919-2
	Molybdenum	0.167	+/- .5	U	0.167	1.0	LIQ	MS	20-SEP-22 11:33	220920-3
	Boron	4.0	+/-7.5	U	4.0	15.0	LIQ	MS	23-SEP-22 23:57	220923-1
	Calcium	30.0	+/-50	U	30.0	100	LIQ	MS	23-SEP-22 23:57	220923-1
CCB04										
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	16-SEP-22 10:06	091622W1-7
	Antimony	0.6	+/-1	U	0.6	2.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Arsenic	1.66	+/-2.5	U	1.66	5.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Barium	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Beryllium	0.2	+/- .25	U	0.2	0.5	LIQ	MS	19-SEP-22 18:39	220919-2
	Cadmium	0.03	+/- .05	U	0.03	0.1	LIQ	MS	19-SEP-22 18:39	220919-2
	Chromium	1.0	+/-1.5	U	1.0	3.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Cobalt	0.1	+/- .5	U	0.1	1.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Lead	0.5	+/-1	U	0.5	2.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Lithium	2.0	+/-5	U	2.0	10.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Selenium	1.5	+/-2.5	U	1.5	5.0	LIQ	MS	19-SEP-22 18:39	220919-2
	Thallium	0.125	+/- .25	U	0.125	0.5	LIQ	MS	19-SEP-22 18:39	220919-2
	Molybdenum	0.167	+/- .5	U	0.167	1.0	LIQ	MS	20-SEP-22 12:06	220920-3
CCB05										
	Mercury	0.067	+/- .1	U	0.067	0.2	LIQ	AV	16-SEP-22 10:14	091622W1-7

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 593108
Contract: DMNN00101
Matrix: GW

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M*</u>	<u>MDL</u>	<u>RDL</u>
1205191453	Antimony	0.600	ug/L	+/-1	U	MS	0.600	2.00
	Arsenic	1.66	ug/L	+/-2.5	U	MS	1.66	5.00
	Barium	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Beryllium	0.200	ug/L	+/-0.25	U	MS	0.200	0.500
	Boron	4.00	ug/L	+/-7.5	U	MS	4.00	15.0
	Cadmium	0.0300	ug/L	+/-0.05	U	MS	0.0300	0.100
	Calcium	30.0	ug/L	+/-50	U	MS	30.0	100
	Chromium	1.00	ug/L	+/-1.5	U	MS	1.00	3.00
	Cobalt	0.100	ug/L	+/-0.5	U	MS	0.100	1.00
	Lead	0.500	ug/L	+/-1	U	MS	0.500	2.00
	Lithium	2.00	ug/L	+/-5	U	MS	2.00	10.0
	Molybdenum	0.167	ug/L	+/-0.5	U	MS	0.167	1.00
	Selenium	1.50	ug/L	+/-2.5	U	MS	1.50	5.00
	Thallium	0.125	ug/L	+/-0.25	U	MS	0.125	0.500
1205191754	Mercury	0.0670	ug/L	+/-0.1	U	AV	0.0670	0.200

***Analytical Methods:**

MS EPA 200.8 SC_NPDES
 AV EPA 245.1/245.2

METALS
-4-
Interference Check Sample

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS15

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Boron	3.16	ug/L					23-SEP-22 23:09	220923-1
	Calcium	95000	ug/L	100000	ug/L	95	80.0 - 120.0	23-SEP-22 23:09	220923-1
ICSAB01	Boron	21.7	ug/L	22.06	ug/L	98.3	80.0 - 120.0	23-SEP-22 23:11	220923-1
	Calcium	96400	ug/L	100000	ug/L	96.4	80.0 - 120.0	23-SEP-22 23:11	220923-1
ICSA02	Boron	3.04	ug/L					23-SEP-22 23:49	220923-1
	Calcium	95900	ug/L	100000	ug/L	95.9	80.0 - 120.0	23-SEP-22 23:49	220923-1
ICSAB02	Boron	21.6	ug/L	22.06	ug/L	97.9	80.0 - 120.0	23-SEP-22 23:51	220923-1
	Calcium	95600	ug/L	100000	ug/L	95.6	80.0 - 120.0	23-SEP-22 23:51	220923-1

METALS
-4-
Interference Check Sample

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.213	ug/L					19-SEP-22 17:01	220919-2
	Arsenic	0.261	ug/L					19-SEP-22 17:01	220919-2
	Barium	0.243	ug/L					19-SEP-22 17:01	220919-2
	Beryllium	0.004	ug/L					19-SEP-22 17:01	220919-2
	Cadmium	0.369	ug/L					19-SEP-22 17:01	220919-2
	Chromium	0.835	ug/L					19-SEP-22 17:01	220919-2
	Cobalt	0.99	ug/L					19-SEP-22 17:01	220919-2
	Lead	0.503	ug/L					19-SEP-22 17:01	220919-2
	Lithium	0.039	ug/L					19-SEP-22 17:01	220919-2
	Selenium	0.351	ug/L					19-SEP-22 17:01	220919-2
	Thallium	0.033	ug/L					19-SEP-22 17:01	220919-2
ICSA01									
	Antimony	19.6	ug/L	20	ug/L	98	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Arsenic	19.6	ug/L	20	ug/L	98	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Barium	23.9	ug/L	20	ug/L	120	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Beryllium	17.5	ug/L	20	ug/L	87.6	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Cadmium	19.3	ug/L	20.83	ug/L	92.5	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Chromium	22.9	ug/L	20	ug/L	114	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Cobalt	21.4	ug/L	21.05	ug/L	102	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Lead	23.3	ug/L	20	ug/L	116	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Lithium	20.5	ug/L	20	ug/L	103	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Selenium	18.4	ug/L	20	ug/L	92.1	80.0 – 120.0	19-SEP-22 17:04	220919-2
	Thallium	22.3	ug/L	20	ug/L	112	80.0 – 120.0	19-SEP-22 17:04	220919-2
ICSA02									
	Antimony	0.215	ug/L					19-SEP-22 18:29	220919-2
	Arsenic	0.242	ug/L					19-SEP-22 18:29	220919-2
	Barium	0.336	ug/L					19-SEP-22 18:29	220919-2
	Beryllium	0.028	ug/L					19-SEP-22 18:29	220919-2
	Cadmium	0.421	ug/L					19-SEP-22 18:29	220919-2
	Chromium	0.811	ug/L					19-SEP-22 18:29	220919-2

METALS

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Interference Check Sample

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cobalt	1.02	ug/L					19-SEP-22 18:29	220919-2
	Lead	0.505	ug/L					19-SEP-22 18:29	220919-2
	Lithium	0.038	ug/L					19-SEP-22 18:29	220919-2
	Selenium	0.351	ug/L					19-SEP-22 18:29	220919-2
	Thallium	0.039	ug/L					19-SEP-22 18:29	220919-2
ICSAB02									
	Antimony	19.0	ug/L	20	ug/L	95.1	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Arsenic	19.1	ug/L	20	ug/L	95.6	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Barium	22.9	ug/L	20	ug/L	115	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Beryllium	16.5	ug/L	20	ug/L	82.6	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Cadmium	19.1	ug/L	20.83	ug/L	91.9	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Chromium	22.3	ug/L	20	ug/L	112	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Cobalt	22.0	ug/L	21.05	ug/L	104	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Lead	23.0	ug/L	20	ug/L	115	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Lithium	19.9	ug/L	20	ug/L	99.7	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Selenium	18.0	ug/L	20	ug/L	90.1	80.0 – 120.0	19-SEP-22 18:32	220919-2
	Thallium	22.1	ug/L	20	ug/L	110	80.0 – 120.0	19-SEP-22 18:32	220919-2

METALS
-4-
Interference Check Sample

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Molybdenum	1990	ug/L	2000	ug/L	99.7	80.0 – 120.0	20-SEP-22 10:31	220920-3
ICSAB01	Molybdenum	1990	ug/L	2000	ug/L	99.5	80.0 – 120.0	20-SEP-22 10:34	220920-3
ICSA02	Molybdenum	2030	ug/L	2000	ug/L	101	80.0 – 120.0	20-SEP-22 11:05	220920-3
ICSAB02	Molybdenum	2020	ug/L	2000	ug/L	101	80.0 – 120.0	20-SEP-22 11:07	220920-3
ICSA03	Molybdenum	2090	ug/L	2000	ug/L	104	80.0 – 120.0	20-SEP-22 11:58	220920-3
ICSAB03	Molybdenum	1970	ug/L	2000	ug/L	98.7	80.0 – 120.0	20-SEP-22 12:01	220920-3

METALS
-4-
Interference Check Sample

SDG No: 593108

Contract: DMNN00101

Lab Code: GEL

Instrument: ICPMS14

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Molybdenum	1900	ug/L	2000	ug/L	95	80.0 – 120.0	20-SEP-22 13:59	220920-6
ICSAB01	Molybdenum	1990	ug/L	2000	ug/L	99.7	80.0 – 120.0	20-SEP-22 14:02	220920-6
ICSA02	Molybdenum	2080	ug/L	2000	ug/L	104	80.0 – 120.0	20-SEP-22 14:32	220920-6
ICSAB02	Molybdenum	2000	ug/L	2000	ug/L	100	80.0 – 120.0	20-SEP-22 14:35	220920-6

METALS

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Matrix Spike Summary

SDG NO. 593108 Client ID: MW-AP-08-2022Q3S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 593108007 Spike ID: 1205191456

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Antimony	ug/L	75-125	54.5		0.600	U	50.0	109		MS
Arsenic	ug/L	75-125	64.4		10.5		50.0	108		MS
Barium	ug/L	75-125	236		172		50.0	128	N	MS
Beryllium	ug/L	75-125	62.6		8.72		50.0	108		MS
Boron	ug/L	75-125	474		399		100	75.1		MS
Cadmium	ug/L	75-125	54.8		0.0880	B	50.0	109		MS
Calcium	ug/L		27700		27300		2000	19.6	N/A	MS
Chromium	ug/L	75-125	59.8		2.75	B	50.0	114		MS
Cobalt	ug/L	75-125	80.2		22.1		50.0	116		MS
Lead	ug/L	75-125	55.9		0.500	U	50.0	111		MS
Lithium	ug/L	75-125	75.0		16.8		50.0	116		MS
Molybdenum	ug/L	75-125	51.2		0.167	U	50.0	102		MS
Selenium	ug/L	75-125	76.6		24.6		50.0	104		MS
Thallium	ug/L	75-125	54.0		0.125	U	50.0	108		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

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Matrix Spike Summary

SDG NO. 593108 Client ID: MW-AP-08-2022Q3S

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 593108007 Spike ID: 1205191760

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	75-125	0.586		0.0670	U	2.00	29.3	N	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

-5a-

Spike Summary

SDG NO. 593108 Client ID: MW-AP-08-2022Q3PS

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 593108007 Spike ID: 1205191762

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Mercury	ug/L	80-120	0.626		0.0670	U	2.00	31.3	N	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS

-5a-

Spike Summary

SDG NO. 593108 Client ID: MW-AP-08-2022Q3PS

Contract: DMNN00101 Level: Low

Matrix: GROUND WATER % Solids:

Sample ID: 593108007 Spike ID: 1205193829

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M*</u>
Barium	ug/L	75-125	219		172		50.0	94.5		MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
-6-
Duplicate Sample Summary

SDG No.: 593108

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-08-2022Q3D

Matrix: GROUND WATER

Level: Low

Sample ID: 593108007

Duplicate ID: 1205191455

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	ug/L		0.600	U	0.600	U			MS
Arsenic	ug/L	+/-10	10.5		11.7		10.7		MS
Barium	ug/L	+/-20%	172		186		7.81		MS
Beryllium	ug/L	+/-20%	8.72		9.55		9.08		MS
Boron	ug/L	+/-20%	399		404		1.21		MS
Cadmium	ug/L	+/- .2	0.0880	B	0.104		16.7		MS
Calcium	ug/L	+/-20%	27300		27100		.737		MS
Chromium	ug/L	+/-6	2.75	B	3.00		8.87		MS
Cobalt	ug/L	+/-20%	22.1		24.1		8.77		MS
Lead	ug/L		0.500	U	0.500	U			MS
Lithium	ug/L	+/-20	16.8		19.1		12.5		MS
Molybdenum	ug/L		0.167	U	0.167	U			MS
Selenium	ug/L	+/-10	24.6		27.7		11.8		MS
Thallium	ug/L		0.125	U	0.125	U			MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

Metals
-6-
Duplicate Sample Summary

SDG No.: 593108

Lab Code: GEL

Contract: DMNN00101

Client ID: MW-AP-08-2022Q3D

Matrix: GROUND WATER

Level: Low

Sample ID: 593108007

Duplicate ID: 1205191759

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/L		0.0670	U	0.0670	U			AV

***Analytical Methods:**
 AV EPA 245.1/245.2

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 593108

Contract: DMNN00101

Aqueous LCS Source: Enviromental Express

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205191454								
	Antimony	ug/L	50.0	51.2		102	85-115	MS
	Arsenic	ug/L	50.0	49.4		98.8	85-115	MS
	Barium	ug/L	50.0	52.3		105	85-115	MS
	Beryllium	ug/L	50.0	52.4		105	85-115	MS
	Boron	ug/L	100	108		108	85-115	MS
	Cadmium	ug/L	50.0	50.4		101	85-115	MS
	Calcium	ug/L	2000	2260		113	85-115	MS
	Chromium	ug/L	50.0	53.2		106	85-115	MS
	Cobalt	ug/L	50.0	51.8		104	85-115	MS
	Lead	ug/L	50.0	52.9		106	85-115	MS
	Lithium	ug/L	50.0	52.6		105	80-120	MS
	Molybdenum	ug/L	50.0	53.1		106	85-115	MS
	Selenium	ug/L	50.0	47.0		93.9	85-115	MS
	Thallium	ug/L	50.0	51.2		102	85-115	MS

*Analytical Methods:

MS EPA 200.8 SC_NPDES

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 593108

Contract: DMNN00101

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M*</u>
1205191755	Mercury	ug/L	2.00	2.10		105	85-115	AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
 -9-
 Serial Dilution Sample Summary

SDG NO. 593108 **Client ID:** MW-AP-08-2022Q3L

Contract: DMNN00101

Matrix: LIQUID **Level:** Low

Sample ID: 593108007 **Serial Dilution ID:** 1205191457

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Antimony	.6	U	3	U				MS
Arsenic	10.5		11.7	B	11.238			MS
Barium	172		170		.772		10	MS
Beryllium	8.72		8.98		2.936			MS
Boron	79.8		96.1		20.431			MS
Cadmium	.088	B	.15	U	14.773			MS
Calcium	5470		5340		2.255		10	MS
Chromium	2.75	B	5	U	5.426			MS
Cobalt	22.1		21.4		3.208			MS
Lead	.5	U	2.5	U				MS
Lithium	16.8		16.8	B	.089			MS
Molybdenum	.167	U	.835	U				MS
Selenium	24.6		26.5		7.832			MS
Thallium	.125	U	.625	U				MS

***Analytical Methods:**

MS EPA 200.8 SC_NPDES

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 593108 Client ID: MW-AP-08-2022Q3L

Contract: DMNN00101

Matrix: LIQUID Level: Low

Sample ID: 593108007 Serial Dilution ID: 1205191761

<u>Analyte</u>	<u>Initial Value</u> ug/L	<u>C</u>	<u>Serial Value</u> ug/L	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M*</u>
Mercury	.067	U	.335	U				AV

*Analytical Methods:

AV EPA 245.1/245.2

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 593108

Method Type: MS

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2316656							
1205191453	MB for batch 2316656	MB	G	15-SEP-22	50mL	50mL	
1205191454	LCS for batch 2316656	LCS	G	15-SEP-22	50mL	50mL	
1205191456	MW-AP-08-2022Q3S	MS	G	15-SEP-22	50mL	50mL	
1205191455	MW-AP-08-2022Q3D	DUP	G	15-SEP-22	50mL	50mL	
593108001	MW-AP-01-2022Q3	SAMPLE	G	15-SEP-22	50mL	50mL	
593108002	MW-AP-02-2022Q3	SAMPLE	G	15-SEP-22	50mL	50mL	
593108003	MW-AP-03-2022Q3	SAMPLE	G	15-SEP-22	50mL	50mL	
593108004	MW-AP-04-2022Q3	SAMPLE	G	15-SEP-22	50mL	50mL	
593108005	DU-WAT-CCR-AP-22301	SAMPLE	G	15-SEP-22	50mL	50mL	
593108006	MW-AP-05-2022Q3	SAMPLE	G	15-SEP-22	50mL	50mL	
593108007	MW-AP-08-2022Q3	SAMPLE	G	15-SEP-22	50mL	50mL	
593108008	FBLK-WAT-CCR-AP-22302	SAMPLE	G	15-SEP-22	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 593108

Method Type: AV

Contract: DMNN00101

Lab Code: GEL

<u>Sample ID</u>	<u>Client ID</u>	<u>Sample Type</u>	<u>Matrix</u>	<u>Prep Date</u>	<u>Initial Sample Size</u>	<u>Final Sample Volume</u>	<u>Percent Solids</u>
Batch Number 2316797							
1205191754	MB for batch 2316797	MB	W	15-SEP-22	20mL	20mL	
1205191755	LCS for batch 2316797	LCS	W	15-SEP-22	20mL	20mL	
1205191760	MW-AP-08-2022Q3S	MS	G	15-SEP-22	20mL	20mL	
1205191759	MW-AP-08-2022Q3D	DUP	G	15-SEP-22	20mL	20mL	
593108001	MW-AP-01-2022Q3	SAMPLE	G	15-SEP-22	20mL	20mL	
593108002	MW-AP-02-2022Q3	SAMPLE	G	15-SEP-22	20mL	20mL	
593108003	MW-AP-03-2022Q3	SAMPLE	G	15-SEP-22	20mL	20mL	
593108004	MW-AP-04-2022Q3	SAMPLE	G	15-SEP-22	20mL	20mL	
593108005	DU-WAT-CCR-AP-22301	SAMPLE	G	15-SEP-22	20mL	20mL	
593108006	MW-AP-05-2022Q3	SAMPLE	G	15-SEP-22	20mL	20mL	
593108007	MW-AP-08-2022Q3	SAMPLE	G	15-SEP-22	20mL	20mL	
593108008	FBLK-WAT-CCR-AP-22302	SAMPLE	G	15-SEP-22	20mL	20mL	

General Chem Analysis

Case Narrative

**General Chemistry
 Technical Case Narrative
 Dominion Energy
 SDG #: 593108**

Product: Ion Chromatography
Analytical Method: EPA 300.0
Analytical Procedure: GL-GC-E-086 REV# 30
Analytical Batch: 2317984

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
593108001	MW-AP-01-2022Q3
593108002	MW-AP-02-2022Q3
593108003	MW-AP-03-2022Q3
593108004	MW-AP-04-2022Q3
593108005	DU-WAT-CCR-AP-22301
593108006	MW-AP-05-2022Q3
593108007	MW-AP-08-2022Q3
593108008	FBLK-WAT-CCR-AP-22302
1205194183	Method Blank (MB)
1205194184	Laboratory Control Sample (LCS)
1205194185	593105011(AS-LF-02-2022Q3) Sample Duplicate (DUP)
1205194186	593105011(AS-LF-02-2022Q3) Post Spike (PS)
1205194188	593108007(MW-AP-08-2022Q3) Sample Duplicate (DUP)
1205194189	593108007(MW-AP-08-2022Q3) Post Spike (PS)

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

Data Summary:

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

Technical Information

Sample Dilutions

The following samples 1205194188 (MW-AP-08-2022Q3DUP), 1205194189 (MW-AP-08-2022Q3PS), 593108001 (MW-AP-01-2022Q3), 593108002 (MW-AP-02-2022Q3), 593108003 (MW-AP-03-2022Q3), 593108004 (MW-AP-04-2022Q3), 593108005 (DU-WAT-CCR-AP-22301), 593108006 (MW-AP-05-2022Q3) and 593108007 (MW-AP-08-2022Q3) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	593108						
	001	002	003	004	005	006	007
Chloride	40X	10X	25X	5X	40X	20X	20X
Sulfate	40X	10X	25X	5X	40X	20X	20X

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batches: 2316796, 2317550 and 2319883

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
593108001	MW-AP-01-2022Q3
593108002	MW-AP-02-2022Q3
593108003	MW-AP-03-2022Q3
593108004	MW-AP-04-2022Q3
593108005	DU-WAT-CCR-AP-22301
593108006	MW-AP-05-2022Q3
593108007	MW-AP-08-2022Q3
593108008	FBLK-WAT-CCR-AP-22302
1205191743	Method Blank (MB)
1205191744	Laboratory Control Sample (LCS)
1205191745	592878006(NonSDG) Sample Duplicate (DUP)
1205191746	592969002(NonSDG) Sample Duplicate (DUP)
1205191747	592975005(NonSDG) Sample Duplicate (DUP)
1205191748	593103004(MW-04LF-2022Q3) Sample Duplicate (DUP)
1205193169	Method Blank (MB)
1205193170	Laboratory Control Sample (LCS)
1205193171	593108007(MW-AP-08-2022Q3) Sample Duplicate (DUP)
1205193172	593175006(NonSDG) Sample Duplicate (DUP)
1205193173	593194002(NonSDG) Sample Duplicate (DUP)
1205193174	593280001(NonSDG) Sample Duplicate (DUP)
1205198099	Method Blank (MB)
1205198100	Laboratory Control Sample (LCS)
1205198101	593558005(NonSDG) Sample Duplicate (DUP)
1205198102	593732002(NonSDG) Sample Duplicate (DUP)

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

Data Summary:

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

Quality Control (QC) Information

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205191746 (Non SDG 592969002DUP)	12.4* (0%-5%)
	1205191748 (MW-04LF-2022Q3DUP)	abs(19 - 33)* (+/-10 mg/L)

Technical Information

Holding Times

Sample (See Below) was accidentally analyzed outside of the method specified holding time. The analysis was performed as soon as possible by the analyst. The data is qualified.

Sample	Analyte	Value
593108005 (DU-WAT-CCR-AP-22301)		Received 14-SEP-22, within holding, analyzed 22-SEP-22, out of holding 20-SEP-22

Miscellaneous Information

Additional Comments

All method-driven specifications are followed for these analyses except where client-specific SOW requirements are required to be met.

Certification Statement

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

GEL LABORATORIES LLC

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

Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 593108 GEL Work Order: 593108

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- 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.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Kristen Mizzell

Date: 28 SEP 2022

Title: Group Leader

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-01-2022Q3	Project: DMNN00101
Sample ID: 593108001	Client ID: DMNN001
Matrix: GW	
Collect Date: 13-SEP-22 11:50	
Receive Date: 14-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.339	0.0330	0.100	mg/L		1	JLD1	09/17/22	0344	2317984	1
Chloride		202	2.68	8.00	mg/L		40	JLD1	09/17/22	1428	2317984	2
Sulfate		26.2	5.32	16.0	mg/L		40					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		478	2.38	10.0	mg/L			CH6	09/15/22	1119	2316796	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-02-2022Q3	Project: DMNN00101
Sample ID: 593108002	Client ID: DMNN001
Matrix: GW	
Collect Date: 13-SEP-22 13:40	
Receive Date: 14-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0962	0.0330	0.100	mg/L		1	JLD1	09/17/22	0414	2317984	1
Chloride		66.6	0.670	2.00	mg/L		10	JLD1	09/17/22	1458	2317984	2
Sulfate		21.3	1.33	4.00	mg/L		10					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		339	2.38	10.0	mg/L			CH6	09/16/22	1504	2317550	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03-2022Q3	Project: DMNN00101
Sample ID: 593108003	Client ID: DMNN001
Matrix: GW	
Collect Date: 13-SEP-22 14:50	
Receive Date: 14-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.602	0.0330	0.100	mg/L		1	JLD1	09/17/22	0444	2317984	1
Chloride		166	1.68	5.00	mg/L		25	JLD1	09/17/22	1528	2317984	2
Sulfate		87.6	3.33	10.0	mg/L		25					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		550	2.38	10.0	mg/L			CH6	09/16/22	1504	2317550	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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

Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-04-2022Q3	Project: DMNN00101
Sample ID: 593108004	Client ID: DMNN001
Matrix: GW	
Collect Date: 13-SEP-22 16:10	
Receive Date: 14-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.494	0.0330	0.100	mg/L		1	JLD1	09/17/22	0513	2317984	1
Chloride		21.5	0.335	1.00	mg/L		5	JLD1	09/17/22	1558	2317984	2
Sulfate		22.4	0.665	2.00	mg/L		5					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		513	2.38	10.0	mg/L			CH6	09/16/22	1504	2317550	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: DU-WAT-CCR-AP-22301	Project: DMNN00101
Sample ID: 593108005	Client ID: DMNN001
Matrix: GW	
Collect Date: 13-SEP-22 12:00	
Receive Date: 14-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.278	0.0330	0.100	mg/L		1	JLD1	09/17/22	0543	2317984	1
Chloride		206	2.68	8.00	mg/L		40	JLD1	09/17/22	1628	2317984	2
Sulfate		26.6	5.32	16.0	mg/L		40					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids	H	468	2.38	10.0	mg/L			CH6	09/22/22	1148	2319883	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	MW-AP-05-2022Q3	Project:	DMNN00101
Sample ID:	593108006	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	13-SEP-22 15:40		
Receive Date:	14-SEP-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	09/17/22	0743	2317984	1
Chloride		13.6	1.34	4.00	mg/L		20	JLD1	09/17/22	1658	2317984	2
Sulfate		191	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		383	2.38	10.0	mg/L			CH6	09/16/22	1504	2317550	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
 Address : 120 Tredegar Street
 Richmond, Virginia 23219
 Contact: Kelly Hicks
 Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-08-2022Q3	Project: DMNN00101
Sample ID: 593108007	Client ID: DMNN001
Matrix: GW	
Collect Date: 13-SEP-22 14:10	
Receive Date: 14-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.975	0.0330	0.100	mg/L		1	JLD1	09/17/22	0813	2317984	1
Chloride		17.3	1.34	4.00	mg/L		20	JLD1	09/17/22	1728	2317984	2
Sulfate		145	2.66	8.00	mg/L		20					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids		358	2.38	10.0	mg/L			CH6	09/16/22	1504	2317550	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	SM 2540C	

Notes:

Column headers are defined as follows:

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

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 28, 2022

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Contact: Kelly Hicks
Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID:	FBLK-WAT-CCR-AP-22302	Project:	DMNN00101
Sample ID:	593108008	Client ID:	DMNN001
Matrix:	GW		
Collect Date:	13-SEP-22 11:30		
Receive Date:	14-SEP-22		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	09/17/22	0942	2317984	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Solids Analysis												
SM2540C TDS "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/16/22	1504	2317550	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SM 2540C	

Notes:

Column headers are defined as follows:

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

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: September 28, 2022

Page 1 of 4

Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia

Contact: Kelly Hicks

Workorder: 593108

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2317984										
QC1205194185	593105011	DUP									
Chloride		2.82		2.81	mg/L	0.0462		(0%-20%)	JLD1	09/16/22	22:45
Fluoride	U	ND	U	ND	mg/L	N/A					
Sulfate		3.25		3.21	mg/L	1.18		(0%-20%)			
QC1205194188	593108007	DUP									
Chloride		17.3		17.3	mg/L	0.081 ^		(+/-8)		09/17/22	17:58
Fluoride		0.975		0.975	mg/L	0.0205		(0%-20%)		09/17/22	08:43
Sulfate		145		146	mg/L	0.364		(0%-20%)		09/17/22	17:58
QC1205194184	LCS										
Chloride	5.00			4.85	mg/L		97	(90%-110%)		09/17/22	01:44
Fluoride	2.50			2.38	mg/L		95.3	(90%-110%)			
Sulfate	10.0			10.0	mg/L		100	(90%-110%)			
QC1205194183	MB										
Chloride			U	ND	mg/L					09/17/22	01:14
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205194186	593105011	PS									
Chloride	5.00	2.82		8.11	mg/L		106	(90%-110%)		09/16/22	23:15

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QC Summary

Workorder: 593108

Page 2 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2317984										
Fluoride	2.50	U	ND	2.46	mg/L		98.2	(90%-110%)	JLD1	09/16/22	23:15
Sulfate	10.0		3.25	13.3	mg/L		101	(90%-110%)			
QC1205194189	593108007 PS										
Chloride	5.00		0.864	5.83	mg/L		99.3	(90%-110%)		09/17/22	18:27
Fluoride	2.50		0.975	3.56	mg/L		103	(90%-110%)		09/17/22	09:13
Sulfate	10.0		7.27	17.7	mg/L		105	(90%-110%)		09/17/22	18:27
Solids Analysis											
Batch	2316796										
QC1205191745	592878006 DUP										
Total Dissolved Solids			107	111	mg/L	3.67		(0%-5%)	CH6	09/15/22	11:19
QC1205191746	592969002 DUP										
Total Dissolved Solids			68.0	77.0	mg/L	12.4*		(0%-5%)		09/15/22	11:19
QC1205191747	592975005 DUP										
Total Dissolved Solids			297	296	mg/L	0.337		(0%-5%)		09/15/22	11:19
QC1205191748	593103004 DUP										
Total Dissolved Solids			33.0	19.0	mg/L	53.8 ^		(+/-20)		09/15/22	11:19
QC1205191744	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		09/15/22	11:19
QC1205191743	MB										
Total Dissolved Solids			U	ND	mg/L					09/15/22	11:19

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QC Summary

Workorder: **593108**

Page 3 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch	2317550										
QC1205193171	593108007	DUP									
Total Dissolved Solids			358	358	mg/L	0		(0%-5%)	CH6	09/16/22	15:04
QC1205193172	593175006	DUP									
Total Dissolved Solids			103	100	mg/L	2.96		(0%-5%)		09/16/22	15:04
QC1205193173	593194002	DUP									
Total Dissolved Solids			889	885	mg/L	0.451		(0%-5%)		09/16/22	15:04
QC1205193174	593280001	DUP									
Total Dissolved Solids			18.0	17.0	mg/L	5.71 ^		(+/-20)		09/16/22	15:04
QC1205193170	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		09/16/22	15:04
QC1205193169	MB										
Total Dissolved Solids			U	ND	mg/L					09/16/22	15:04
Batch	2319883										
QC1205198101	593558005	DUP									
Total Dissolved Solids			222	222	mg/L	0		(0%-5%)	CH6	09/22/22	11:48
QC1205198102	593732002	DUP									
Total Dissolved Solids			185	179	mg/L	3.3		(0%-5%)		09/22/22	11:48
QC1205198100	LCS										
Total Dissolved Solids	300			302	mg/L		101	(95%-105%)		09/22/22	11:48
QC1205198099	MB										
Total Dissolved Solids			U	ND	mg/L					09/22/22	11:48

Notes:

The Qualifiers in this report are defined as follows:

< Result is less than value reported

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QC Summary

Workorder: 593108

Page 4 of 4

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>											
B											
E											
H											
J											
J											
N/A											
N1											
ND											
NJ											
Q											
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 the 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.

Radiological Analysis

Case Narrative

**Radiochemistry
Technical Case Narrative
Dominion Energy
SDG #: 593108**

Product: GFPC Ra228, Liquid
Analytical Method: EPA 904.0
Analytical Procedure: GL-RAD-A-063 REV# 5
Analytical Batch: 2316938

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
593108001	MW-AP-01-2022Q3
593108002	MW-AP-02-2022Q3
593108003	MW-AP-03-2022Q3
593108004	MW-AP-04-2022Q3
593108005	DU-WAT-CCR-AP-22301
593108006	MW-AP-05-2022Q3
593108007	MW-AP-08-2022Q3
593108008	FBLK-WAT-CCR-AP-22302
1205192014	Method Blank (MB)
1205192015	593108007(MW-AP-08-2022Q3) Sample Duplicate (DUP)
1205192016	Laboratory Control Sample (LCS)

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

Data Summary:

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

Preparation Information

Homogenous Matrix

Sample 593108004 (MW-AP-04-2022Q3) was non-homogenous matrix. Sample 593108004 (MW-AP-04-2022Q3) is cloudy.

Quality Control (QC) Information

Method Blank Criteria

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

Sample	Analyte	Value
1205192014 (MB)	Radium-228	Result: 2.44 pCi/L > MDA: 2.37 pCi/L <= RDL: 3.00 pCi/L

Technical Information

Recounts

Samples were recounted due to high relative percent difference/relative error ratio. The recounts are reported.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

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

Analytical Batch: 2316939

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
593108001	MW-AP-01-2022Q3
593108002	MW-AP-02-2022Q3
593108003	MW-AP-03-2022Q3
593108004	MW-AP-04-2022Q3
593108005	DU-WAT-CCR-AP-22301
593108006	MW-AP-05-2022Q3
593108007	MW-AP-08-2022Q3
593108008	FBLK-WAT-CCR-AP-22302
1205192017	Method Blank (MB)
1205192018	593108007(MW-AP-08-2022Q3) Sample Duplicate (DUP)
1205192019	593108007(MW-AP-08-2022Q3) Matrix Spike (MS)
1205192020	Laboratory Control Sample (LCS)

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

Data Summary:

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

Preparation Information

Homogenous Matrix

Sample 593108004 (MW-AP-04-2022Q3) was non-homogenous matrix.

Miscellaneous Information

Additional Comments

The matrix spike, 1205192019 (MW-AP-08-2022Q3MS), aliquot was reduced to conserve sample volume.

Certification Statement

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

GEL LABORATORIES LLC

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Qualifier Definition Report for

DMNN001 Dominion Energy (50149867)

Client SDG: 593108 GEL Work Order: 593108

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

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Kate Gellatly

Date: 28 SEP 2022

Title: Analyst I

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-01-2022Q3
Sample ID: 593108001
Matrix: GW
Collect Date: 13-SEP-22
Receive Date: 14-SEP-22
Collector: Client

Project: DMNN00101
Client ID: DMNN001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.98	+/-1.41	2.22	+/-1.49	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.10	+/-1.41		+/-1.50		pCi/L			NXL1	09/27/22	1529	2317962	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.126	+/-0.149	0.242	+/-0.151	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	85.3	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-02-2022Q3

Project: DMNN00101

Sample ID: 593108002

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.728	+/-1.08	1.88	+/-1.10	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.25	+/-1.15		+/-1.19		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.52	+/-0.381	0.251	+/-0.455	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	82.6	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-03-2022Q3

Project: DMNN00101

Sample ID: 593108003

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.78	+/-1.27	1.97	+/-1.34	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.50	+/-1.35		+/-1.46		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.72	+/-0.460	0.387	+/-0.568	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	80	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-04-2022Q3

Project: DMNN00101

Sample ID: 593108004

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.267	+/-0.917	1.69	+/-0.919	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.88	+/-1.00		+/-1.05		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.61	+/-0.411	0.300	+/-0.501	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	87.2	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: DU-WAT-CCR-AP-22301

Project: DMNN00101

Sample ID: 593108005

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.17	+/-1.75	2.67	+/-1.92	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.46	+/-1.79		+/-1.98		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.30	+/-0.382	0.313	+/-0.458	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	81.6	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-05-2022Q3

Project: DMNN00101

Sample ID: 593108006

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.229	+/-0.886	1.76	+/-0.886	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.72	+/-0.983		+/-1.02		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.72	+/-0.425	0.279	+/-0.502	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	93.5	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: MW-AP-08-2022Q3

Project: DMNN00101

Sample ID: 593108007

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.70	+/-1.28	2.04	+/-1.35	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.37	+/-1.38		+/-1.54		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.67	+/-0.491	0.272	+/-0.732	1.00	pCi/L			LXP1	09/27/22	0749	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	87.6	(30%-110%)

Notes:

The MDC is a sample specific MDC.

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : Dominion Energy Services, Inc.
Address : 120 Tredegar Street

Richmond, Virginia 23219

Report Date: September 28, 2022

Contact: Kelly Hicks

Project: CCR Groundwater Monitoring - Level 1 Package

Client Sample ID: FBLK-WAT-CCR-AP-22302

Project: DMNN00101

Sample ID: 593108008

Client ID: DMNN001

Matrix: GW

Collect Date: 13-SEP-22

Receive Date: 14-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.12	+/-1.69	2.90	+/-1.71	3.00	pCi/L			JE1	09/22/22	1220	2316938	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.62	+/-1.72		+/-1.74		pCi/L			NXL1	09/27/22	1528	2316940	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.504	+/-0.299	0.406	+/-0.308	1.00	pCi/L			LXP1	09/27/22	0820	2316939	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2316938	75	(30%-110%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: September 28, 2022
Page 1 of 2

Client : Dominion Energy Services, Inc.
120 Tredegar Street

Contact: Richmond, Virginia 23219
Kelly Hicks

Workorder: 593108

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date Time
Rad Gas Flow									
Batch	2316938								
QC1205192014	MB								
Radium-228				2.44	pCi/L			JE1	09/22/2212:20
				Uncert:					
				TPU:					
QC1205192015	593108007	DUP							
Radium-228		U	1.70	U	1.03				09/22/2212:20
				Uncert:		RPD: 0	N/A		
				TPU:		RER: 0.767	(0-2)		
QC1205192016	LCS								
Radium-228		44.1		45.4	pCi/L	REC: 103	(80%-120%)		09/22/2212:19
				Uncert:					
				TPU:					
Rad Ra-226									
Batch	2316939								
QC1205192017	MB								
Radium-226			U	0.192	pCi/L			LXP1	09/27/2208:20
				Uncert:					
				TPU:					
QC1205192018	593108007	DUP							
Radium-226			2.67	2.89	pCi/L				
				Uncert:		RPD: 8	(0%-20%)		
				TPU:		RER: 0.411	(0-2)		
QC1205192019	593108007	MS							
Radium-226		131	2.67	140	pCi/L	REC: 104	(75%-125%)		
				Uncert:					
				TPU:					
QC1205192020	LCS								
Radium-226		26.5		21.7	pCi/L	REC: 81.9	(80%-120%)		
				Uncert:					
				TPU:					

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

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

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QC Summary

Workorder: 593108

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	QC Criteria	Range	Analyst	Date	Time
FB										
H										
J										
J										
K										
L										
M										
M										
N										
N/A										
N1										
ND										
NJ										
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.

** Indicates analyte is a surrogate compound.

^ 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.

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.

This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

**Wateree Power Station Groundwater Sampling
Samples Collected between: 9/7/2022 and 9/14/2022**

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

592596

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Analyte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-01A-2022Q3	MW-01A	N	CALC	Radium-226+228 Sum	N	1.50	U	BF,S			1.28	pCi/L
MW-AP-01A-2022Q3	MW-01A	N	EPA 200.8	Beryllium	T	0.233	J	RL	0.200	0.500		ug/L
MW-AP-01A-2022Q3	MW-01A	N	EPA 200.8	Cobalt	T	0.506	J	RL	0.100	1.00		ug/L
MW-AP-01A-2022Q3	MW-01A	N	EPA 200.8	Lead	T	1.20	J	RL	0.500	2.00		ug/L
MW-AP-01A-2022Q3	MW-01A	N	EPA 300.0	Fluoride	N		U	BF	0.0652	0.100		mg/L
MW-AP-01A-2022Q3	MW-01A	N	EPA 300.0	Sulfate	N		U	BL,BF	0.307	0.400		mg/L
MW-AP-01A-2022Q3	MW-01A	N	EPA 903.1	Radium-226	N	0.769	U	BF	0.769	1.00	0.498	pCi/L
MW-AP-01A-2022Q3	MW-01A	N	SM 2540C	Total Dissolved Solids	N	8.00	J	RL	2.38	10.0		mg/L
FBLK-WAT-CCR-AP-22301	Field Blank	FB	CALC	Radium-226+228 Sum	N	1.08	J	S			0.923	pCi/L
FBLK-WAT-CCR-AP-22301	Field Blank	FB	EPA 300.0	Fluoride	N	0.0505	J	RL	0.0330	0.100		mg/L
FBLK-WAT-CCR-AP-22301	Field Blank	FB	EPA 300.0	Sulfate	N	0.207	J	RL	0.133	0.400		mg/L

Data Qualifiers

U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.

Reason Codes and Explanations

BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.

H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Lab Sample ID	592596001
Sys Sample Code	MW-AP-01A-2022Q3
Sample Name	MW-AP-01A-2022Q3
Sample Date	9/8/2022 10:30:00 AM
Location	WAT-MW-01A / MW-01A
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	1.50	U	BF,S	1.28				N	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	53.7				0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	0.233	J	RL		0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	16.5				4.00	4.00	15.0	Y	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	489				30.0	30.0	100	Y	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.506	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	1.20	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	1.00	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	5.75				0.0670	0.0670	0.200	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U	BF		0.0652	0.0652	0.100	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L		U	BL,BF		0.307	0.307	0.400	N	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	0.769	U	BF	0.498	0.769	0.769	1.00	N	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	0.727	U		1.18	2.00	2.00	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	8.00	J	RL		2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	592596002
Sys Sample Code	FBLK-WAT-CCR-AP-22301
Sample Name	FBLK-WAT-CCR-AP-22301
Sample Date	9/8/2022 10:45:00 AM
Location	WAT-CCRLF-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	1.08	J	S	0.923				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L		U			4.00	4.00	15.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L		U			30.0	30.0	100	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	1.00	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	0.453				0.0670	0.0670	0.200	Y	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L	0.0505	J	RL		0.0330	0.0330	0.100	Y	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L	0.207	J	RL		0.133	0.133	0.400	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.08			0.515	0.469	0.469	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	-0.109	U		0.766	1.47	1.47	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L		U			2.38	2.38	10.0	N	Yes	1	NA



This quality assurance (QA) review is based upon an examination of the data generated from the analyses of the samples collected as part of:

**Wateree Power Station Groundwater Sampling
Samples Collected between: 9/7/2022 and 9/14/2022**

This review was performed with guidance from the associated US EPA data validation guidelines and in accordance with the Quality Assurance Program Plan. These validation guidance documents specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocols performed for the US EPA, SW-846, and Standard Methods utilized by the laboratory for these samples. Environmental Standards, Inc. (Environmental Standards) used professional judgment to determine the usability of the analytical results and compliance relative to the US EPA, SW-846, and Standard Methods utilized by the laboratory. This QA review was performed on the data associated with Job Number:

593108

The findings offered in this report are based on a review of holding times and preservation, method blank results, field blank results, filter blank results, equipment blank results, tubing blank results, matrix spike/matrix spike duplicate recoveries and precision, laboratory control sample/laboratory control sample duplicate recoveries and precision, laboratory and field duplicate precision, total and dissolved results comparisons, and/or positive results between the method detection limit and quantitation limit.

The following results were qualified based on the data verification effort:

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-01-2022Q3	MW-AP-01	N	CALC	Radium-226+228 Sum	N	2.10	UJ	FD			1.50	pCi/L
MW-AP-01-2022Q3	MW-AP-01	N	EPA 200.8	Barium	T	264	J+	M	0.500	2.00		ug/L
MW-AP-01-2022Q3	MW-AP-01	N	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
MW-AP-01-2022Q3	MW-AP-01	N	EPA 903.1	Radium-226	N	0.126	UJ	FD	0.242	1.00	0.151	pCi/L
MW-AP-02-2022Q3	MW-AP-02	N	CALC	Radium-226+228 Sum	N	2.25	J	S			1.19	pCi/L
MW-AP-02-2022Q3	MW-AP-02	N	EPA 200.8	Barium	T	220	J+	M	0.500	2.00		ug/L
MW-AP-02-2022Q3	MW-AP-02	N	EPA 200.8	Cobalt	T	0.329	J	RL	0.100	1.00		ug/L
MW-AP-02-2022Q3	MW-AP-02	N	EPA 200.8	Lithium	T	7.11	J	RL	2.00	10.0		ug/L
MW-AP-02-2022Q3	MW-AP-02	N	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
MW-AP-02-2022Q3	MW-AP-02	N	EPA 300.0	Fluoride	N	0.0962	J	RL	0.0330	0.100		mg/L
MW-AP-03-2022Q3	MW-AP-03	N	CALC	Radium-226+228 Sum	N	3.50	J	S			1.46	pCi/L
MW-AP-03-2022Q3	MW-AP-03	N	EPA 200.8	Barium	T	223	J+	M	0.500	2.00		ug/L
MW-AP-03-2022Q3	MW-AP-03	N	EPA 200.8	Cobalt	T	0.307	J	RL	0.100	1.00		ug/L
MW-AP-03-2022Q3	MW-AP-03	N	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
MW-AP-04-2022Q3	MW-AP-04	N	CALC	Radium-226+228 Sum	N	1.88	J	S			1.05	pCi/L
MW-AP-04-2022Q3	MW-AP-04	N	EPA 200.8	Barium	T	205	J+	M	0.500	2.00		ug/L
MW-AP-04-2022Q3	MW-AP-04	N	EPA 200.8	Cobalt	T	0.189	J	RL	0.100	1.00		ug/L
MW-AP-04-2022Q3	MW-AP-04	N	EPA 200.8	Lead	T	0.880	J	RL	0.500	2.00		ug/L
MW-AP-04-2022Q3	MW-AP-04	N	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
DU-WAT-CCR-AP-22301	MW-AP-01	FD	CALC	Radium-226+228 Sum	N	4.46	J	BL,FD			1.98	pCi/L
DU-WAT-CCR-AP-22301	MW-AP-01	FD	EPA 200.8	Barium	T	259	J+	M	0.500	2.00		ug/L
DU-WAT-CCR-AP-22301	MW-AP-01	FD	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
DU-WAT-CCR-AP-22301	MW-AP-01	FD	EPA 903.1	Radium-226	N	1.30	J	FD	0.313	1.00	0.458	pCi/L
DU-WAT-CCR-AP-22301	MW-AP-01	FD	EPA 904.0	Radium-228	N	3.17	U	BL	3.17	3.17	1.92	pCi/L
DU-WAT-CCR-AP-22301	MW-AP-01	FD	SM 2540C	Total Dissolved Solids	N	468	J	H	2.38	10.0		mg/L
MW-AP-05-2022Q3	MW-AP-05	N	CALC	Radium-226+228 Sum	N	1.72	J	S			1.02	pCi/L
MW-AP-05-2022Q3	MW-AP-05	N	EPA 200.8	Barium	T	170	J+	M	0.500	2.00		ug/L
MW-AP-05-2022Q3	MW-AP-05	N	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
MW-AP-08-2022Q3	MW-08	N	CALC	Radium-226+228 Sum	N	4.37	J	S			1.54	pCi/L
MW-AP-08-2022Q3	MW-08	N	EPA 200.8	Barium	T	172	J+	M	0.500	2.00		ug/L

Sample	Location	Sample Type	Method	Anayte	T/D	Result	Qual	Reason Code(s)	MDL	QL	Uncertainty	Unit
MW-AP-08-2022Q3	MW-08	N	EPA 200.8	Cadmium	T	0.0880	J	RL	0.0300	0.100		ug/L
MW-AP-08-2022Q3	MW-08	N	EPA 200.8	Chromium	T	2.75	J	RL	1.00	3.00		ug/L
MW-AP-08-2022Q3	MW-08	N	EPA 245.1	Mercury	T		R	M	0.0670	0.200		ug/L
FBLK-WAT-CCR-AP-22302	Field Blank	FB	CALC	Radium-226+228 Sum	N	1.62	J	S			1.74	pCi/L

Data Qualifiers

U	The analyte was not detected above the level of the sample reporting limit.
J	Quantitation is approximate due to limitations identified during data validation.
J+	The result is an estimated quantity; the result may be biased high.
J-	The result is an estimated quantity; the result may be biased low.
UJ	The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.
R	Unreliable positive result; analyte may or may not be present in sample.

Reason Codes and Explanations

BE	Equipment blank contamination.
BF	Field blank contamination.
BL	Laboratory blank contamination.
BN	Negative laboratory blank contamination.
FD	Field duplicate imprecision.
FG	Total versus Dissolved Imprecision.
H	Holding time exceeded.
L	LCS and LCSD recoveries outside of acceptance limits
LD	Laboratory duplicate imprecision.
LP	LCS/LCSD imprecision.
M	MS and MSD recoveries outside of acceptance limits
MP	MS/MSD imprecision.
Q	Chemical Preservation issue.
RL	Reported Results between the MDL and QL.
S	Radium-226+228 flagged due to reporting protocol for combined results
T	Temperature preservation issue.
X	Percent solids < 50%.
Y	Chemical yield outside of acceptance limits
ZZ	Other

Lab Sample ID	593108001
Sys Sample Code	MW-AP-01-2022Q3
Sample Name	MW-AP-01-2022Q3
Sample Date	9/13/2022 11:50:00 AM
Location	WAT-MW-AP-01 / MW-AP-01
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	2.10	UJ	FD	1.50				N	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	264	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	2590				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	81200				600	600	2000	Y	Yes	20	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	3.99				0.167	0.167	1.00	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	202				2.68	2.68	8.00	Y	Yes	40	NA
	Sulfate	14808-79-8	N	mg/L	26.2				5.32	5.32	16.0	Y	Yes	40	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.339				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	0.126	UJ	FD	0.151	0.242	0.242	1.00	N	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.98	U		1.49	2.22	2.22	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	478				2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108002
Sys Sample Code	MW-AP-02-2022Q3
Sample Name	MW-AP-02-2022Q3
Sample Date	9/13/2022 1:40:00 PM
Location	WAT-MW-AP-02 / MW-AP-02
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	2.25	J	S	1.19				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	69.9				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	220	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	987				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	65200				300	300	1000	Y	Yes	10	NA
	Chromium	7440-47-3	T	ug/L	52.8				1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.329	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	7.11	J	RL		2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	5.60				0.167	0.167	1.00	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	66.6				0.670	0.670	2.00	Y	Yes	10	NA
	Sulfate	14808-79-8	N	mg/L	21.3				1.33	1.33	4.00	Y	Yes	10	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.0962	J	RL		0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.52			0.455	0.251	0.251	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	0.728	U		1.10	1.88	1.88	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	339				2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108003
Sys Sample Code	MW-AP-03-2022Q3
Sample Name	MW-AP-03-2022Q3
Sample Date	9/13/2022 2:50:00 PM
Location	WAT-MW-AP-03 / MW-AP-03
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	3.50	J	S	1.46				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	1080				8.30	8.30	25.0	Y	Yes	5	NA
	Barium	7440-39-3	T	ug/L	223	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	1940				40.0	40.0	150	Y	Yes	10	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	76700				300	300	1000	Y	Yes	10	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.307	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	69.3				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	25.1				0.167	0.167	1.00	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	166				1.68	1.68	5.00	Y	Yes	25	NA
	Sulfate	14808-79-8	N	mg/L	87.6				3.33	3.33	10.0	Y	Yes	25	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.602				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.72			0.568	0.387	0.387	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.78	U		1.34	1.97	1.97	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	550				2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108004
Sys Sample Code	MW-AP-04-2022Q3
Sample Name	MW-AP-04-2022Q3
Sample Date	9/13/2022 4:10:00 PM
Location	WAT-MW-AP-04 / MW-AP-04
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	1.88	J	S	1.05				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	33.5				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	205	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	2370				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	145000				600	600	2000	Y	Yes	20	NA
	Chromium	7440-47-3	T	ug/L	3.16				1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	0.189	J	RL		0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L	0.880	J	RL		0.500	0.500	2.00	Y	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	4.69				0.167	0.167	1.00	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	21.5				0.335	0.335	1.00	Y	Yes	5	NA
	Sulfate	14808-79-8	N	mg/L	22.4				0.665	0.665	2.00	Y	Yes	5	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.494				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.61			0.501	0.300	0.300	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	0.267	U		0.919	1.69	1.69	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	513				2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108005
Sys Sample Code	DU-WAT-CCR-AP-22301
Sample Name	DU-WAT-CCR-AP-22301
Sample Date	9/13/2022 12:00:00 PM
Location	WAT-MW-AP-01 / MW-AP-01
Sample Type	FD
Matrix	GW
Parent Sample	MW-AP-01-2022Q3

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	4.46	J	BL,FD	1.98				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	259	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	2580				80.0	80.0	300	Y	Yes	20	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	80800				600	600	2000	Y	Yes	20	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L	3.79				0.167	0.167	1.00	Y	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	206				2.68	2.68	8.00	Y	Yes	40	NA
	Sulfate	14808-79-8	N	mg/L	26.6				5.32	5.32	16.0	Y	Yes	40	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.278				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.30	J	FD	0.458	0.313	0.313	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	3.17	U	BL	1.92	3.17	3.17	3.17	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	468	J	H		2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108006
Sys Sample Code	MW-AP-05-2022Q3
Sample Name	MW-AP-05-2022Q3
Sample Date	9/13/2022 3:40:00 PM
Location	WAT-MW-AP-05 / MW-AP-05
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	1.72	J	S	1.02				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L	170	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L	471				20.0	20.0	75.0	Y	Yes	5	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	28500				150	150	500	Y	Yes	5	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	4.86				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	1.00	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	13.6				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	191				2.66	2.66	8.00	Y	Yes	20	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L		U			0.0330	0.0330	0.100	N	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	1.72			0.502	0.279	0.279	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	-0.229	U		0.886	1.76	1.76	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	383				2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108007
Sys Sample Code	MW-AP-08-2022Q3
Sample Name	MW-AP-08-2022Q3
Sample Date	9/13/2022 2:10:00 PM
Location	WAT-MW-08 / MW-08
Sample Type	N
Matrix	GW
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	4.37	J	S	1.54				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L	10.5				1.66	1.66	5.00	Y	Yes	1	NA
	Barium	7440-39-3	T	ug/L	172	J+	M		0.500	0.500	2.00	Y	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L	8.72				0.200	0.200	0.500	Y	Yes	1	NA
	Boron	7440-42-8	T	ug/L	399				20.0	20.0	75.0	Y	Yes	5	NA
	Cadmium	7440-43-9	T	ug/L	0.0880	J	RL		0.0300	0.0300	0.100	Y	Yes	1	NA
	Calcium	7440-70-2	T	ug/L	27300				150	150	500	Y	Yes	5	NA
	Chromium	7440-47-3	T	ug/L	2.75	J	RL		1.00	1.00	3.00	Y	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L	22.1				0.100	0.100	1.00	Y	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L	16.8				2.00	2.00	10.0	Y	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	1.00	N	Yes	1	NA
Selenium	7782-49-2	T	ug/L	24.6				1.50	1.50	5.00	Y	Yes	1	NA	
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		R	M		0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L	17.3				1.34	1.34	4.00	Y	Yes	20	NA
	Sulfate	14808-79-8	N	mg/L	145				2.66	2.66	8.00	Y	Yes	20	NA
EPA 300.0	Fluoride	16984-48-8	N	mg/L	0.975				0.0330	0.0330	0.100	Y	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	2.67			0.732	0.272	0.272	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.70	U		1.35	2.04	2.04	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L	358				2.38	2.38	10.0	Y	Yes	1	NA

Lab Sample ID	593108008
Sys Sample Code	FBLK-WAT-CCR-AP-22302
Sample Name	FBLK-WAT-CCR-AP-22302
Sample Date	9/13/2022 11:30:00 AM
Location	WAT-CCRLF-FB / Field Blank
Sample Type	FB
Matrix	AQ
Parent Sample	

Analytic Method	Chemical Name	CAS Rn	Fraction	Result Unit	Final Result	Final Qual	Reason code	Uncertainty	Final MDL	Final RL	Final QL	Final Detect	Final Report	DF	Basis
CALC	Radium-226+228 Sum	RA226/228	N	pCi/L	1.62	J	S	1.74				Y	Yes	1	NA
EPA 200.8	Antimony	7440-36-0	T	ug/L		U			0.600	0.600	2.00	N	Yes	1	NA
	Arsenic	7440-38-2	T	ug/L		U			1.66	1.66	5.00	N	Yes	1	NA
	Barium	7440-39-3	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Beryllium	7440-41-7	T	ug/L		U			0.200	0.200	0.500	N	Yes	1	NA
	Boron	7440-42-8	T	ug/L		U			4.00	4.00	15.0	N	Yes	1	NA
	Cadmium	7440-43-9	T	ug/L		U			0.0300	0.0300	0.100	N	Yes	1	NA
	Calcium	7440-70-2	T	ug/L		U			30.0	30.0	100	N	Yes	1	NA
	Chromium	7440-47-3	T	ug/L		U			1.00	1.00	3.00	N	Yes	1	NA
	Cobalt	7440-48-4	T	ug/L		U			0.100	0.100	1.00	N	Yes	1	NA
	Lead	7439-92-1	T	ug/L		U			0.500	0.500	2.00	N	Yes	1	NA
	Lithium	7439-93-2	T	ug/L		U			2.00	2.00	10.0	N	Yes	1	NA
	Molybdenum	7439-98-7	T	ug/L		U			0.167	0.167	1.00	N	Yes	1	NA
	Selenium	7782-49-2	T	ug/L		U			1.50	1.50	5.00	N	Yes	1	NA
Thallium	7440-28-0	T	ug/L		U			0.125	0.125	0.500	N	Yes	1	NA	
EPA 245.1	Mercury	7439-97-6	T	ug/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
EPA 300.0	Chloride	16887-00-6	N	mg/L		U			0.0670	0.0670	0.200	N	Yes	1	NA
	Fluoride	16984-48-8	N	mg/L		U			0.0330	0.0330	0.100	N	Yes	1	NA
	Sulfate	14808-79-8	N	mg/L		U			0.133	0.133	0.400	N	Yes	1	NA
EPA 903.1	Radium-226	13982-63-3	N	pCi/L	0.504			0.308	0.406	0.406	1.00	Y	Yes	1	NA
EPA 904.0	Radium-228	15262-20-1	N	pCi/L	1.12	U		1.71	2.90	2.90	3.00	N	Yes	1	NA
SM 2540C	Total Dissolved Solids	TDS	N	mg/L		U			2.38	2.38	10.0	N	Yes	1	NA

Appendix C

First Semiannual Assessment Monitoring Program Statistical Evaluation



DOMINION ENERGY SOUTH CAROLINA

WATEREE STATION ASH POND SEMIANNUAL ASSESSMENT MONITORING

RICHLAND COUNTY, SOUTH CAROLINA

CCR GROUNDWATER ASSESSMENT MONITORING STATISTICAL ANALYSIS REPORT

For the March 2022 Sampling Event

June 29, 2022



A handwritten signature in blue ink, reading "Joyce E. Peterson".

Joyce Peterson, P.E.
Senior Environmental Engineer

A handwritten signature in blue ink, reading "Richard A. Mayer Jr.".

Richard A. Mayer Jr., P.G.
Project Manager

*TRC Environmental Corporation | Dominion Energy South Carolina
Wateree Station Ash Pond – Assessment Monitoring*

\\GREENVILLE-FP1\WPGVL\PJT2\416559\0005 WATEREE\R4165590005-013 WATEREE AP CCR ASSESSMENT.DOCX

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Table 3	Well/Constituent Pair Statistical Results

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Appendix B	Wateree Ash Pond Confidence Limit Graphs

Statistical Analysis Report

Groundwater Sampling

TRC Environmental Corporation (TRC) is providing this report of Groundwater Protection Standard (GWPS) exceedances for the Wateree Station Ash Pond for the ninth semiannual assessment monitoring event. Samples were collected from March 16th – 18th, 2022. The final laboratory analytical data packages for the event were received on March 31st, 2022, and the data validation report was received on April 4th, 2022. **Table 1** presents the March 2022 data for Appendix IV constituents. This report addresses results from Assessment Monitoring wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08. The background well for the Ash Pond includes AP-MW-01A.

Statistical Analysis

Statistically Significant Level (SSL) exceedances of the GWPS include the following, thus the Ash Pond remains in Corrective Measures monitoring:

- For arsenic (comparison to UCL): MW-AP-02, MW-AP-03, and MW-AP-04.
- For lithium (comparison to UCL): MW-AP-03.

The Wateree Station Ash Pond was found to exceed background concentrations for CCR Rule Appendix III constituents following the first semiannual Detection Monitoring event in September 2017. The Ash Pond was then found to exceed Groundwater Protection Standards (GWPS) for arsenic and lithium following the first Compliance Monitoring event in March 2018.

The Wateree Ash Pond is currently conducting corrective measures. Corrective measure groundwater monitoring will continue until groundwater is restored to concentrations less than the groundwater protection standards. Groundwater concentrations for Appendix IV constituents will be considered restored when the following is true for each well-constituent (w/c) pair monitored at the Ash Pond CCR unit:

- For w/c pairs that have not exceeded the GWPS at a statistically significant level, the lower confidence limit (LCL) for that w/c pair is less than the GWPS, or
- For w/c pairs that have exceeded the GWPS at a statistically significant level, the upper confidence limit (UCL) for that w/c pair is less than the GWPS.

TRC reviewed the post-baseline data set for constituents that have exceeded the GWPS at a statistically significant level. This review was conducted as follows:

- The data sets consisted of one result per official CCR sampling event from March 2018 through March 2022. When verification resampling was conducted, the verification resampling result was

used for the event. When duplicate samples were collected, the higher concentration was used.

Table 2 presents the data used for the statistical comparisons to GWPS.

UCLs and LCLs were calculated for downgradient compliance monitoring wells using USEPA's ProUCL software (version 5.1) as follows:

- For each w/c pair, no further statistical calculations were made if none of the results exceeded the GWPS on a direct comparison basis. A statistically significance exceedance of the LCL is not possible for these constituents.
- Calculations of UCLs were made based on the distribution of detected concentrations within each w/c pair data set.
- For w/c pair data sets for which ProUCL recommended use of a UCL premised on a normal distribution, the LCL was calculated based on the symmetry of the distribution around the mean.
- For lognormally distributed data, the data were log-transformed and entered into ProUCL. The results were re-transformed to base-10 numbers for reporting and comparing to GWPS.

ProUCL was used to test each w/c pair that had a direct exceedance of a GWPS for a decreasing or increasing trend using the Theil-Sen Trend Test.

Table 3 presents the results of the statistical evaluations for the March 2022 groundwater samples. For arsenic and lithium, the LCL and UCL for each w/c pair with a direct comparison exceedance of arsenic or lithium is compared to the GWPS. For other constituents with a direct comparison exceedance of a GWPS (*i.e.*, beryllium and radium 226/228), the LCL for each w/c pair was compared to the GWPS.

Table 3 also includes the results of the trend tests while the statistical outputs from ProUCL are provided in **Appendix A**. Confidence limit graphs for arsenic (MW-AP-02, MW-AP-03, and MW-AP-04), beryllium (MW-AP-08), lithium (MW-AP-03), and radium (MW-AP-01, MW-AP-02, and MW-AP-03) are provided in **Appendix B**.

Tables

Table 1 March 2022 Semiannual Corrective Measure Monitoring Concentrations

WELL	CONSTITUENT/GWPS /RESULT (µg/L except as noted) ^[1]														
	ANTIMONY 6	ARSENIC 10	BARIUM 2000	BERYLLIUM 4	CADMIUM 5	CHROMIUM 100	COBALT 6	FLUORIDE 4	LEAD 15	LITHIUM 40	MERCURY 2	MOLYBDENUM 100	RADIUM 226/228 5	SELENIUM 50	THALLIUM 2
MW-AP-01A	0.600 U	1.66 U	59.4	0.245 J	0.0300 U	1.00 U	0.523 J	0.0330 U	1.13 J	2.00 U	0.0670 U	0.167 U	4.47	1.50 U	0.165 J
MW-AP-01	0.600 U	1.66 U	240	0.200 U	0.0300 U	36.5	0.397 J	0.333	0.500 U	2.00 U	0.0670 U	2.96	9.95 J	1.50 U	0.125 U
MW-AP-02	0.600 U	103	223	0.200 U	0.0300 U	5.51	0.320 J	0.184	0.500 U	9.94 J	0.0670 U	8.69	10.4 J	1.50 U	0.125 U
MW-AP-03	0.600 U	1,170	206	0.200 U	0.0300 U	1.00 U	0.265 J	0.642	0.500 U	67.8	0.0670 UJ	21.0	7.56 J	1.50 U	0.211 J
MW-AP-04	0.600 U	10.3	148	0.200 U	0.0300 U	1.00 U	0.100 U	0.522	0.500 U	2.00 U	0.0670 UJ	2.12	4.69 J	1.50 U	0.125 U
MW-AP-05	0.600 U	1.66 U	159	0.200 U	0.0300 U	1.00 U	4.01	0.0842 J	0.500 U	2.00 U	0.0670 UJ	0.167 U	3.94 J	1.50 U	0.125 U
MW-AP-08	0.600 U	2.28 J	200	4.31	0.0300 U	1.00 U	5.28 J	0.729	0.500 U	9.69 J	0.0670 U	0.167 U	4.94 J	3.79 J	0.125 U

Shaded results exceed groundwater protection standards (GWPS) by direct comparison.

[1] Fluoride concentrations expressed in milligrams per liter (mg/L); Radium concentrations expressed in pico-Curies per liter (pCi/L).

U The analyte was not detected above the level of the sample reporting limit.

J Estimated concentration.

UJ The analyte was not detected, the reporting limit is approximate and may be inaccurate or imprecise.

Table 2 Data Sets for Confidence Interval Calculations

WELL	CONSTITUENT [GWPS]	March 2018	June 2018	September 2018	December 2018	March 2019	August 2019	March 2020	September 2020	March 2021	September 2021	March 2022
MW-AP-02	Arsenic [10]	278	243	85.4	208	192	55.8	76.1	77.2	68.1	45.0	103
MW-AP-03	Arsenic [10]	1,290	1,252	943	1,050	1,240	600	1,500	1,200	1,430	1,050	1,170
MW-AP-04	Arsenic [10]	29.6	43	49.1	45	21.6	22.9	9.14	10.4	13.6	13.6	10.3
MW-AP-08	Beryllium [4]	1.6	1.3	0.85	0.43	0.725	2.218	1.35	1.0	2.35	1.6	4.31
MW-AP-03	Lithium [40]	96.2	109	53.2	97.8	87.2	32.7	74.3	67.2	72.6	56.6	67.8
MW-AP-01	Radium 226/228 [5]	1.58	0.527	1.756	1.73	1.577	2.23	2.203	1.91	1.83	1.58	9.95 J
MW-AP-02	Radium 226/228 [5]	1.281	2.855	0.993	1.648	2.824	1.605	2.166	2.3	2.19	1.281	10.4 J
MW-AP-03	Radium 226/228 [5]	1.617	2.71	1.639	2.86	3.46	2.95	2.185	3.01	1.29	1.617	7.56 J

Concentrations reported in µg/L except radium, which is reported in pCi/L

Shaded results exceed GWPS by direct comparison.

NS Well not sampled during that event

J Estimated concentration.

Table 3 Well/Constituent Pair Statistical Results

WELL	CONSTITUENT	GWPS	DISTRIBUTION	TREND	LCL	UCL	BASIS
MW-AP-02	Arsenic	10	Normal	Decreasing	84.4	184.8	95% Student's-t UCL
MW-AP-03	Arsenic	10	Normal	None	1,034	1,322	95% Student's-t UCL
MW-AP-04	Arsenic	10	Normal	Decreasing	14.2	29.7	95% Student's-t UCL
MW-AP-08	Beryllium	4	Normal	None	0.933	2.38	95% Student's-t UCL
MW-AP-03	Lithium	40	Normal	Decreasing	63.2	89.1	95% Student's-t UCL
MW-AP-01	Radium 226/228	5	Nonnormal ^[1]	Increasing	1.24	2.97	95% Adjusted-CLT UCL (Chen-1995)
MW-AP-02	Radium 226/228	5	Lognormal ^[2]	None	1.91	3.50	95% Adjusted-CLT UCL (Chen-1995)
MW-AP-03	Radium 226/228	5	Gamma ^[3]	None	1.58	4.28	95% Adjusted-CLT UCL (Chen-1995)

Shaded cells denote w/c pairs that statistically exceed the GWPS.

Concentrations reported in µg/L except radium, which is reported in pCi/L

[1] Lognormal at 0.01 Significance level. Data log-transformed for normal UCL calculation.

[2] Data log-transformed for normal UCL calculation.

[3] Data approximate normal at 0.01 significance level. UCL calculated for normal distribution.

Appendix A

ProUCL Statistical Outputs

Theil-Sen Text Outputs

Theil-Sen Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.16/29/2022 3:28:25 PM
From File	WorkSheet.xls
Full Precision	OFF
Average Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Arsenic-mw-ap-02

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	45
Maximum	278
Mean	134.6
Geometric Mean	110.8
Median	90.1
Standard Deviation	86.52
Coefficient of Variation	0.643

Mann-Kendall Statistics

M-K Test Value (S)	-27
Tabulated p-value	0.008
Standard Deviation of S	11.18
Standardized Value of S	-2.326
Approximate p-value	0.01

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
Theil-Sen Slope	-0.169
Theil-Sen Intercept	7474
M2'	31.7
One-sided 95% upper limit of Slope	-0.0827
95% LCL of Slope (0.025)	-0.225
95% UCL of Slope (0.975)	-0.054

Statistically significant evidence of a decreasing trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43164	278	197.6	80.44
2	43256	243	182.1	60.94
3	43445	208	150.2	57.8
4	43530	192	135.9	56.13
5	43704	55.8	106.5	-50.74
6	43899	76.1	73.66	2.436
7	44089	77.2	41.64	35.56
8	44265	68.1	11.97	56.13
9	44455	45	-20.06	65.06
10	44638	103	-50.91	153.9

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 3:28:25 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Arsenic-mw-ap-03

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	600
Maximum	1500
Mean	1178
Geometric Mean	1148
Median	1220
Standard Deviation	248.7
Coefficient of Variation	0.211

Mann-Kendall Statistics

M-K Test Value (S)	-8
Tabulated p-value	0.242
Standard Deviation of S	11.14
Standardized Value of S	-0.629
Approximate p-value	0.265

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
Theil-Sen Slope	-0.0624
Theil-Sen Intercept	3951
M1	11.59
M2	33.41
95% LCL of Slope (0.025)	-0.427
95% UCL of Slope (0.975)	0.326

Insufficient evidence to identify a significant trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43164	1290	1260	30.22
2	43256	1252	1254	-2.043
3	43445	1050	1242	-192.3
4	43531	1240	1237	3.103
5	43704	600	1226	-626.1
6	43900	1500	1214	286.1
7	44090	1200	1202	-2.043
8	44266	1430	1191	238.9
9	44456	1050	1179	-129.2
10	44637	1170	1168	2.062

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 3:28:25 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Arsenic-mw-ap-04

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	9.14
Maximum	45
Mean	21.91
Geometric Mean	18.66
Median	17.6
Standard Deviation	13.36
Coefficient of Variation	0.61

Mann-Kendall Statistics

M-K Test Value (S)	-24
Tabulated p-value	0.014
Standard Deviation of S	11.14
Standardized Value of S	-2.065
Approximate p-value	0.0194

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
Theil-Sen Slope	-0.0165
Theil-Sen Intercept	742.4
M2'	31.66
	-
One-sided 95% upper limit of Slope	0.00938
95% LCL of Slope (0.025)	-0.0332
	-
95% UCL of Slope (0.975)	0.00517

Statistically significant evidence of a decreasing trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43165	29.6	28.14	1.459
2	43256	43	26.64	16.36
3	43445	45	23.51	21.49
4	43535	21.6	22.02	-0.418
5	43705	22.9	19.21	3.695
6	43899	9.14	15.99	-6.855
7	44089	10.4	12.85	-2.451
8	44267	13.6	9.905	3.695
9	44457	13.6	6.761	6.839
10	44637	10.3	3.782	6.518

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 3:45:35 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Beryllium-mw-08

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	0.43
Maximum	4.74
Mean	1.656
Geometric Mean	1.338
Median	1.325
Standard Deviation	1.246
Coefficient of Variation	0.753

Mann-Kendall Statistics

M-K Test Value (S)	15
Tabulated p-value	0.108
Standard Deviation of S	11.18
Standardized Value of S	1.252
Approximate p-value	0.105

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
	8.41E-
Theil-Sen Slope	04
Theil-Sen Intercept	-35.5
M1	11.54
M2	33.46
	-8.80E-
95% LCL of Slope (0.025)	04
95% UCL of Slope (0.975)	0.0026

Insufficient evidence to identify a significant

trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43165	1.6	0.789	0.811
2	43255	1.3	0.865	0.435
3	43445	0.85	1.024	-0.174
4	43586	0.43	1.143	-0.713
5	43705	0.725	1.243	-0.518
6	43900	2.218	1.407	0.811
7	44090	1.35	1.567	-0.217
8	44266	1	1.715	-0.715
9	44456	2.35	1.874	0.476
10	44636	4.74	2.026	2.714

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 3:58:00 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Lithium-mw-ap-03

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	32.7
Maximum	109
Mean	76.14
Geometric Mean	72.6
Median	73.45
Standard Deviation	22.38
Coefficient of Variation	0.294

Mann-Kendall Statistics

M-K Test Value (S)	-25
Tabulated p-value	0.014
Standard Deviation of S	11.18
Standardized Value of S	-2.147
Approximate p-value	0.0159

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
Theil-Sen Slope	-0.0307
Theil-Sen Intercept	1416
M2'	31.7
One-sided 95% upper limit of Slope	-0.0181
95% LCL of Slope (0.025)	-0.0487
95% UCL of Slope (0.975)	-0.0111

Statistically significant evidence of a decreasing

trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43164	96.2	93	3.195
2	43256	109	90.18	18.82
3	43445	97.8	84.39	13.41
4	43531	87.2	81.76	5.444
5	43704	32.7	76.45	-43.75
6	43900	74.3	70.45	3.854
7	44090	67.2	64.62	2.577
8	44266	72.6	59.23	13.37
9	44456	56.6	53.4	3.195
10	44637	67.8	47.86	19.94

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 4:52:40 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Radium-mw-ap-01

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	0.527
Maximum	9.95
Mean	2.529
Geometric Mean	1.92
Median	1.793
Standard Deviation	2.65
Coefficient of Variation	1.048

Mann-Kendall Statistics

M-K Test Value (S)	23
Tabulated p-value	0.023
Standard Deviation of S	11.18
Standardized Value of S	1.968
Approximate p-value	0.0245

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
	6.94E-
Theil-Sen Slope	04
Theil-Sen Intercept	-28.61
M1'	13.3
	1.32E-
One-sided 95% lower limit of Slope	04
	3.73E-
95% LCL of Slope (0.025)	05
95% UCL of Slope (0.975)	0.00297

Statistically significant evidence of an increasing trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43164	1.58	1.351	0.229
2	43256	0.527	1.414	-0.887
3	43445	1.756	1.546	0.21
4	43530	1.73	1.605	0.125
5	43704	1.577	1.725	-0.148
6	43899	2.23	1.861	0.369
7	44089	2.203	1.993	0.21
8	44265	1.91	2.115	-0.205
9	44455	1.83	2.247	-0.417
10	44638	9.95	2.374	7.576

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 4:52:40 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Radium-mw-ap-02

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	0.993
Maximum	10.4
Mean	2.826
Geometric Mean	2.233
Median	2.178
Standard Deviation	2.731
Coefficient of Variation	0.966

Mann-Kendall Statistics

M-K Test Value (S)	17
Tabulated p-value	0.078
Standard Deviation of S	11.18
Standardized Value of S	1.431
Approximate p-value	0.0762

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
	9.57E-
Theil-Sen Slope	04
Theil-Sen Intercept	-39.73
M1	11.54
M2	33.46
	-5.52E-
95% LCL of Slope (0.025)	04
95% UCL of Slope (0.975)	0.00579

Insufficient evidence to identify a significant trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43164	1.281	1.568	-0.287
2	43256	2.855	1.656	1.199
3	43445	0.993	1.837	-0.844
4	43530	1.648	1.918	-0.27
5	43704	2.824	2.085	0.739
6	43899	1.605	2.271	-0.666
7	44089	2.166	2.453	-0.287
8	44265	2.3	2.621	-0.321
9	44455	2.19	2.803	-0.613
10	44638	10.4	2.978	7.422

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 4:52:40 PM
From File	WorkSheet.xls
Full Precision	OFF
Average	
Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Radium-mw-ap-03

General Statistics

Number of Events	10
Number of Values Reported (n)	10
Number of Values After Averaging	10
Number of Replicates	0
Minimum	1.29
Maximum	7.56
Mean	2.928
Geometric Mean	2.587
Median	2.785
Standard Deviation	1.777
Coefficient of Variation	0.607

Mann-Kendall Statistics

M-K Test Value (S)	15
Tabulated p-value	0.108
Standard Deviation of S	11.18
Standardized Value of S	1.252
Approximate p-value	0.105

Approximate inference for Theil-Sen Trend Test

Number of Slopes	45
Theil-Sen Slope	6.13E-04
Theil-Sen Intercept	-24.08
M1	11.54
M2	33.46
95% LCL of Slope (0.025)	-9.75E-04
95% UCL of Slope (0.975)	0.00375

Insufficient evidence to identify a significant trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

#	Events	Values	Estimates	Residuals
1	43164	1.617	2.394	-0.777
2	43256	2.71	2.45	0.26
3	43445	1.639	2.566	-0.927
4	43531	2.86	2.619	0.241
5	43704	3.46	2.725	0.735
6	43900	2.95	2.845	0.105
7	44090	2.185	2.962	-0.777
8	44266	3.01	3.07	-0.0596
9	44456	1.29	3.186	-1.896
10	44637	7.56	3.297	4.263

Upper Confidence Limits

Normal UCL Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	ProUCL 5.16/29/2022 4:58:53 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic (mw-ap-02)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	45	Mean	134.6
Maximum	278	Median	90.1
SD	86.52	Std. Error of Mean	27.36
Coefficient of Variation	0.643	Skewness	0.617

Normal GOF Test

Shapiro Wilk Test Statistic	0.858	Shapiro Wilk GOF Test
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.247	Lilliefors GOF Test
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	184.8	95% Adjusted-CLT UCL (Chen-1995)	185.3
		95% Modified-t UCL (Johnson-1978)	185.7

Gamma GOF Test

A-D Test Statistic	0.567	Anderson-Darling Gamma GOF Test
		Detected data appear Gamma Distributed at 5% Significance Level
5% A-D Critical Value	0.733	Level

K-S Test Statistic	0.235	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.269	Detected data appear Gamma Distributed at 5% Significance Level	
Gamma Statistics			
k hat (MLE)	2.724	k star (bias corrected MLE)	1.974
Theta hat (MLE)	49.42	Theta star (bias corrected MLE)	68.21
nu hat (MLE)	54.48	nu star (bias corrected)	39.47
MLE Mean (bias corrected)	134.6	MLE Sd (bias corrected)	95.82
		Approximate Chi Square Value (0.05)	26.08
Adjusted Level of Significance	0.0267	Adjusted Chi Square Value	24.2
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	203.8	95% Adjusted Gamma UCL (use when n<50)	219.6
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.905	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.207	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	3.807	Mean of logged Data	4.708
Maximum of Logged Data	5.628	SD of logged Data	0.663
Assuming Lognormal Distribution			
95% H-UCL	238.3	90% Chebyshev (MVUE) UCL	221.7
95% Chebyshev (MVUE) UCL	261.2	97.5% Chebyshev (MVUE) UCL	315.9
99% Chebyshev (MVUE) UCL	423.5		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	179.6	95% Jackknife UCL	184.8

95% Standard Bootstrap UCL	178.5	95% Bootstrap-t UCL	196.3
95% Hall's Bootstrap UCL	172.5	95% Percentile Bootstrap UCL	178.2
95% BCA Bootstrap UCL	183.9		
90% Chebyshev(Mean, Sd) UCL	216.7	95% Chebyshev(Mean, Sd) UCL	253.9
97.5% Chebyshev(Mean, Sd) UCL	305.5	99% Chebyshev(Mean, Sd) UCL	406.8

Suggested UCL to Use

95% Student's-t UCL 184.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Arsenic (mw-ap-03)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	600	Mean	1178
Maximum	1500	Median	1220
SD	248.7	Std. Error of Mean	78.63
Coefficient of Variation	0.211	Skewness	-1.321

Normal GOF Test

Shapiro Wilk Test Statistic	0.892	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.203	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1322	95% Adjusted-CLT UCL (Chen-1995)	1272
		95% Modified-t UCL (Johnson-1978)	1317

Gamma GOF Test			
A-D Test Statistic	0.702	Anderson-Darling Gamma GOF Test	
		Detected data appear Gamma Distributed at 5% Significance Level	
5% A-D Critical Value	0.725	Level	
K-S Test Statistic	0.235	Kolmogorov-Smirnov Gamma GOF Test	
		Detected data appear Gamma Distributed at 5% Significance Level	
5% K-S Critical Value	0.266	Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	19.68	k star (bias corrected MLE)	13.85
Theta hat (MLE)	59.86	Theta star (bias corrected MLE)	85.1
nu hat (MLE)	393.7	nu star (bias corrected)	276.9
MLE Mean (bias corrected)	1178	MLE Sd (bias corrected)	316.6
		Approximate Chi Square Value (0.05)	239.4
Adjusted Level of Significance	0.0267	Adjusted Chi Square Value	233.3
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50))	1363	95% Adjusted Gamma UCL (use when n<50)	1398
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.792	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.263	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.262	Data Not Lognormal at 5% Significance Level	
Data Not Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	6.397	Mean of logged Data	7.046
Maximum of Logged Data	7.313	SD of logged Data	0.255
Assuming Lognormal Distribution			
95% H-UCL	1398	90% Chebyshev (MVUE) UCL	1470
95% Chebyshev (MVUE) UCL	1601	97.5% Chebyshev (MVUE) UCL	1781
99% Chebyshev (MVUE) UCL	2137		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			

Nonparametric Distribution Free UCLs

95% CLT UCL	1308	95% Jackknife UCL	1322
95% Standard Bootstrap UCL	1301	95% Bootstrap-t UCL	1294
95% Hall's Bootstrap UCL	1292	95% Percentile Bootstrap UCL	1291
95% BCA Bootstrap UCL	1275		
90% Chebyshev(Mean, Sd) UCL	1414	95% Chebyshev(Mean, Sd) UCL	1521
97.5% Chebyshev(Mean, Sd) UCL	1669	99% Chebyshev(Mean, Sd) UCL	1961

Suggested UCL to Use

95% Student's-t UCL **1322**

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.

Arsenic (mw-ap-04)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	9.14	Mean	21.91
Maximum	45	Median	17.6
SD	13.36	Std. Error of Mean	4.225
Coefficient of Variation	0.61	Skewness	0.921

Normal GOF Test

Shapiro Wilk Test Statistic	0.848	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.233	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	29.66	95% Adjusted-CLT UCL (Chen-1995)	30.18
		95% Modified-t UCL (Johnson-1978)	29.86

Gamma GOF Test

A-D Test Statistic	0.477	Anderson-Darling Gamma GOF Test	
		Detected data appear Gamma Distributed at 5% Significance	
5% A-D Critical Value	0.731	Level	
K-S Test Statistic	0.228	Kolmogorov-Smirnov Gamma GOF Test	
		Detected data appear Gamma Distributed at 5% Significance	
5% K-S Critical Value	0.268	Level	
Detected data appear Gamma Distributed at 5% Significance Level			

Gamma Statistics

k hat (MLE)	3.272	k star (bias corrected MLE)	2.357
Theta hat (MLE)	6.697	Theta star (bias corrected MLE)	9.296
nu hat (MLE)	65.45	nu star (bias corrected)	47.15
MLE Mean (bias corrected)	21.91	MLE Sd (bias corrected)	14.27
		Approximate Chi Square Value (0.05)	32.39
Adjusted Level of Significance	0.0267	Adjusted Chi Square Value	30.28

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	31.9	95% Adjusted Gamma UCL (use when n<50)	34.12
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Lognormal GOF Test

Shapiro Wilk Test Statistic	0.907	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.204	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			

Lognormal Statistics

Minimum of Logged Data	2.213	Mean of logged Data	2.927
Maximum of Logged Data	3.807	SD of logged Data	0.592

Assuming Lognormal Distribution

95% H-UCL	35.39	90% Chebyshev (MVUE) UCL	34.34
95% Chebyshev (MVUE) UCL	40.01	97.5% Chebyshev (MVUE) UCL	47.89
99% Chebyshev (MVUE) UCL	63.37		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	28.86	95% Jackknife UCL	29.66
95% Standard Bootstrap UCL	28.41	95% Bootstrap-t UCL	33.09
95% Hall's Bootstrap UCL	31.79	95% Percentile Bootstrap UCL	28.7
95% BCA Bootstrap UCL	29.66		
90% Chebyshev(Mean, Sd) UCL	34.59	95% Chebyshev(Mean, Sd) UCL	40.33
97.5% Chebyshev(Mean, Sd) UCL	48.3	99% Chebyshev(Mean, Sd) UCL	63.95

Suggested UCL to Use

95% Student's-t UCL **29.66**

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UCL Statistics for Data Sets with Non-Detects

User Selected Options
 Date/Time of Computation ProUCL 5.16/29/2022 5:21:48 PM
 From File WorkSheet.xls
 Full Precision OFF
 Confidence Coefficient 95%
 Number of Bootstrap Operations 2000

Beryllium (mw-08)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	0.43	Mean	1.656
Maximum	4.74	Median	1.325
SD	1.246	Std. Error of Mean	0.394
Coefficient of Variation	0.753	Skewness	1.887

Normal GOF Test

Shapiro Wilk Test Statistic	0.815	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.218	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	2.379	95% Adjusted-CLT UCL (Chen-1995)	2.556
		95% Modified-t UCL (Johnson-1978)	2.418

Gamma GOF Test

A-D Test Statistic	0.245	Anderson-Darling Gamma GOF Test	
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5% A-D Critical Value	0.734	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.138	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.269	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	2.497	k star (bias corrected MLE)	1.814
Theta hat (MLE)	0.663	Theta star (bias corrected MLE)	0.913
nu hat (MLE)	49.93	nu star (bias corrected)	36.29
MLE Mean (bias corrected)	1.656	MLE Sd (bias corrected)	1.23
		Approximate Chi Square Value (0.05)	23.5
Adjusted Level of Significance	0.0267	Adjusted Chi Square Value	21.73
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	2.558	95% Adjusted Gamma UCL (use when n<50)	2.766
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.989	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.104	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.844	Mean of logged Data	0.291
Maximum of Logged Data	1.556	SD of logged Data	0.68
Assuming Lognormal Distribution			
95% H-UCL	2.969	90% Chebyshev (MVUE) UCL	2.731
95% Chebyshev (MVUE) UCL	3.225	97.5% Chebyshev (MVUE) UCL	3.91
99% Chebyshev (MVUE) UCL	5.256		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			

Nonparametric Distribution Free UCLs

		95% Jackknife	
95% CLT UCL	2.305	UCL	2.379
95% Standard Bootstrap UCL	2.292	95% Bootstrap-t UCL	2.978
		95% Percentile Bootstrap	
95% Hall's Bootstrap UCL	5.029	UCL	2.325
95% BCA Bootstrap UCL	2.537		
90% Chebyshev(Mean, Sd) UCL	2.839	95% Chebyshev(Mean, Sd) UCL	3.374
97.5% Chebyshev(Mean, Sd) UCL	4.118	99% Chebyshev(Mean, Sd) UCL	5.578

Suggested UCL to Use

95% Student's-t UCL **2.379**

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

UCL Statistics for Data Sets with Non-Detects

User Selected Options
 Date/Time of Computation ProUCL 5.16/29/2022 5:32:02 PM
 From File WorkSheet.xls
 Full Precision OFF
 Confidence Coefficient 95%
 Number of Bootstrap Operations 2000

Lithium (mw-ap-03)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	32.7	Mean	76.14
Maximum	109	Median	73.45
SD	22.38	Std. Error of Mean	7.077
Coefficient of Variation	0.294	Skewness	-0.442

Normal GOF Test

Shapiro Wilk Test Statistic	0.966	Shapiro Wilk GOF Test
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.145	Lilliefors GOF Test
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	89.11	95% Adjusted-CLT UCL (Chen-1995)	86.72
		95% Modified-t UCL (Johnson-1978)	88.95

Gamma GOF Test

A-D Test Statistic	0.344	Anderson-Darling Gamma GOF Test
5% A-D Critical Value	0.725	Detected data appear Gamma Distributed at 5% Significance Level

K-S Test Statistic	0.184	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.267	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	10.67	k star (bias corrected MLE)	7.532
Theta hat (MLE)	7.139	Theta star (bias corrected MLE)	10.11
nu hat (MLE)	213.3	nu star (bias corrected)	150.6
MLE Mean (bias corrected)	76.14	MLE Sd (bias corrected)	27.74
		Approximate Chi Square Value (0.05)	123.3
Adjusted Level of Significance	0.0267	Adjusted Chi Square Value	119
Assuming Gamma Distribution			
95% Approximate Gamma UCL (use when n>=50)	93.04	95% Adjusted Gamma UCL (use when n<50)	96.41
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.892	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.212	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	3.487	Mean of logged Data	4.285
Maximum of Logged Data	4.691	SD of logged Data	0.346
Assuming Lognormal Distribution			
95% H-UCL	97.35	90% Chebyshev (MVUE) UCL	101.9
95% Chebyshev (MVUE) UCL	113.4	97.5% Chebyshev (MVUE) UCL	129.4
99% Chebyshev (MVUE) UCL	160.7		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	87.78	95% Jackknife UCL	89.11
95% Standard Bootstrap UCL	87.23	95% Bootstrap-t UCL	87.72

95% Hall's Bootstrap UCL	88.24	95% Percentile Bootstrap UCL	86.64
95% BCA Bootstrap UCL	86.23		
90% Chebyshev(Mean, Sd) UCL	97.37	95% Chebyshev(Mean, Sd) UCL	107
97.5% Chebyshev(Mean, Sd) UCL	120.3	99% Chebyshev(Mean, Sd) UCL	146.6

Suggested UCL to Use

95% Student's-t UCL **89.11**

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.

Normal UCL Statistics for Uncensored Full Data Sets

User Selected Options
 Date/Time of Computation ProUCL 5.16/29/2022 6:31:13 PM
 From File WorkSheet.xls
 Full Precision OFF
 Confidence Coefficient 95%

Ln Radium (mw-01a)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	-0.124	Mean	0.76
Maximum	1.772	Median	0.76
SD	0.583	Std. Error of Mean	0.184
Coefficient of Variation	0.768	Skewness	0.269

Normal GOF Test

Shapiro Wilk Test Statistic	0.972	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.164	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1.098	95% Adjusted-CLT UCL (Chen-1995)	1.08
		95% Modified-t UCL (Johnson-1978)	1.1

Suggested UCL to Use

95% Student's-t UCL	1.098
---------------------	-------

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.
 These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
 However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Ln Radium (mw-08)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	-0.54	Mean	0.758
Maximum	1.597	Median	0.743
SD	0.681	Std. Error of Mean	0.215
Coefficient of Variation	0.899	Skewness	-0.61

Normal GOF Test

Shapiro Wilk Test Statistic	0.936	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.181	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1.152	95% Adjusted-CLT UCL (Chen-1995)	1.067
		95% Modified-t UCL (Johnson-1978)	1.145

Suggested UCL to Use

95% Student's-t UCL	1.152
---------------------	-------

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
 Recommendations are based upon data size, data distribution, and skewness.
 These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
 However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be

reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.

Ln Radium (mw-ap-01)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	-0.641	Mean	0.652
Maximum	2.298	Median	0.584
SD	0.708	Std. Error of Mean	0.224
Coefficient of Variation	1.086	Skewness	0.89

Normal GOF Test

Shapiro Wilk Test Statistic	0.787	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.316	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data Not Normal at 5% Significance Level	

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
		95% Adjusted-CLT UCL (Chen-1995)	1.088
95% Student's-t UCL	1.063	95% Modified-t UCL (Johnson-1978)	1.074

Suggested UCL to Use

Data do not follow a Discernible Distribution, May want to try Nonparametric UCLs

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Ln Radium (mw-ap-02)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	-0.00702	Mean	0.803
Maximum	2.342	Median	0.778
SD	0.637	Std. Error of Mean	0.201
Coefficient of Variation	0.793	Skewness	1.56
Normal GOF Test			
Shapiro Wilk Test Statistic	0.862	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.25	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1.172	95% Adjusted-CLT UCL (Chen-1995)	1.241
		95% Modified-t UCL (Johnson-1978)	1.189
Suggested UCL to Use			
95% Student's-t UCL	1.172		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Ln Radium (mw-ap-03)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
------------------------------	----	---------------------------------	----

		Number of Missing Observations	0
Minimum	0.255	Mean	0.951
Maximum	2.023	Median	1.024
SD	0.498	SD of logged Data	0.593
Coefficient of Variation	0.523	Skewness	0.815
Normal GOF Test			
Shapiro Wilk Test Statistic	0.923	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.181	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
		95% Adjusted-CLT UCL (Chen-1995)	1.253
95% Student's-t UCL	1.239	95% Modified-t UCL (Johnson-1978)	1.246
Suggested UCL to Use			
95% Student's-t UCL	1.239		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Ln Radium (mw-ap-04)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	-0.368	Mean	0.716
Maximum	1.545	Median	0.767

SD	0.581	Std. Error of Mean	0.184
Coefficient of Variation	0.812	Skewness	-0.684

Normal GOF Test			
Shapiro Wilk Test Statistic	0.933	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.233	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1.053	95% Adjusted-CLT UCL (Chen-1995)	0.976
		95% Modified-t UCL (Johnson-1978)	1.046

Suggested UCL to Use			
95% Student's-t UCL	1.053		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.

Ln Radium (mw-ap-05)

General Statistics

Total Number of Observations	10	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	-0.601	Mean	0.393
Maximum	1.371	Median	0.275
SD	0.664	Std. Error of Mean	0.21
Coefficient of Variation	1.69	Skewness	0.214

Normal GOF Test			
Shapiro Wilk Test Statistic	0.953	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.842	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.134	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.262	Data appear Normal at 5% Significance Level	
Data appear Normal at 5% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	0.778	95% Adjusted-CLT UCL (Chen-1995)	0.754
		95% Modified-t UCL (Johnson-1978)	0.78

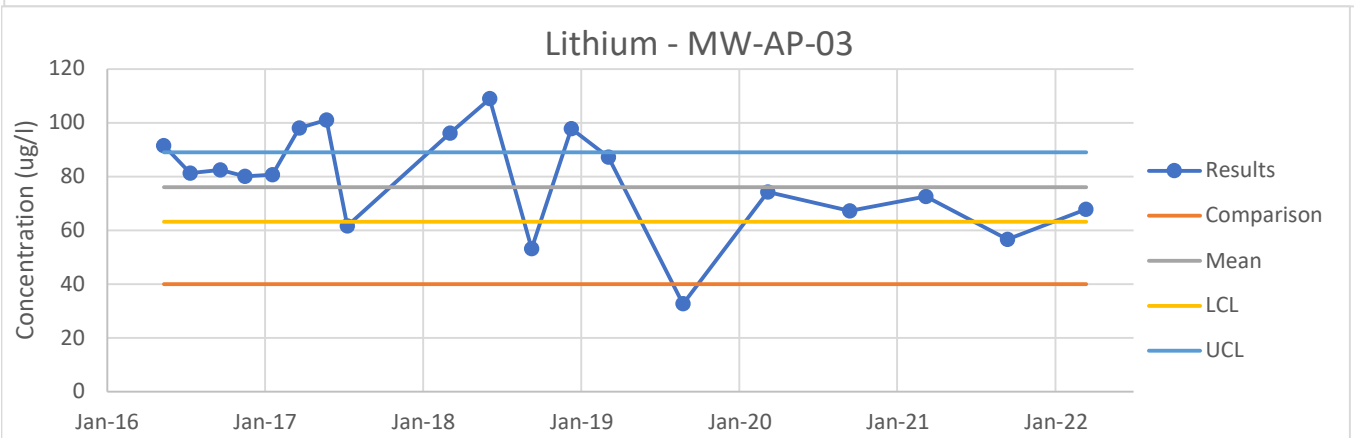
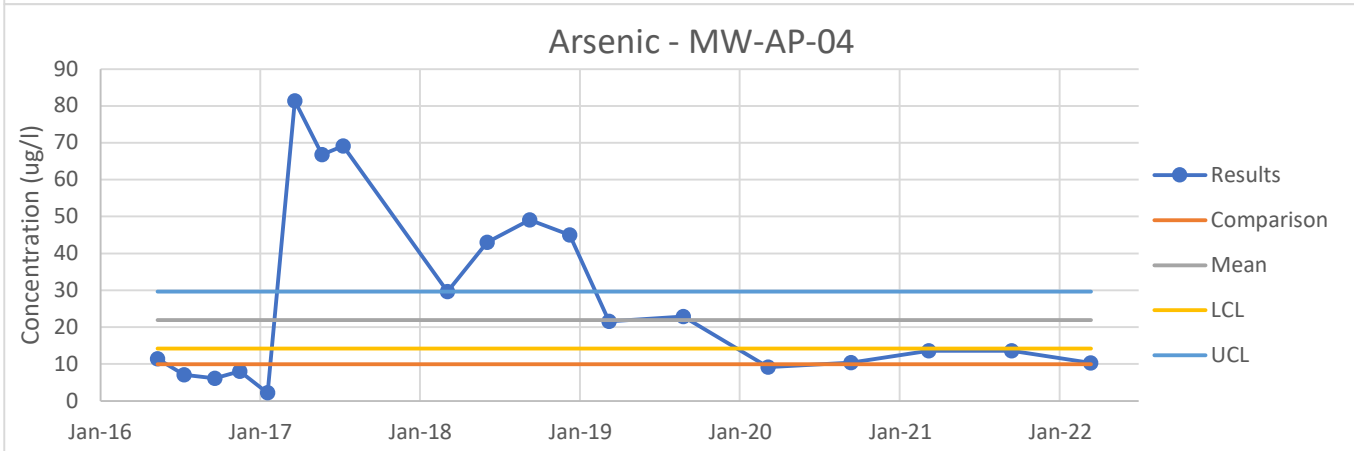
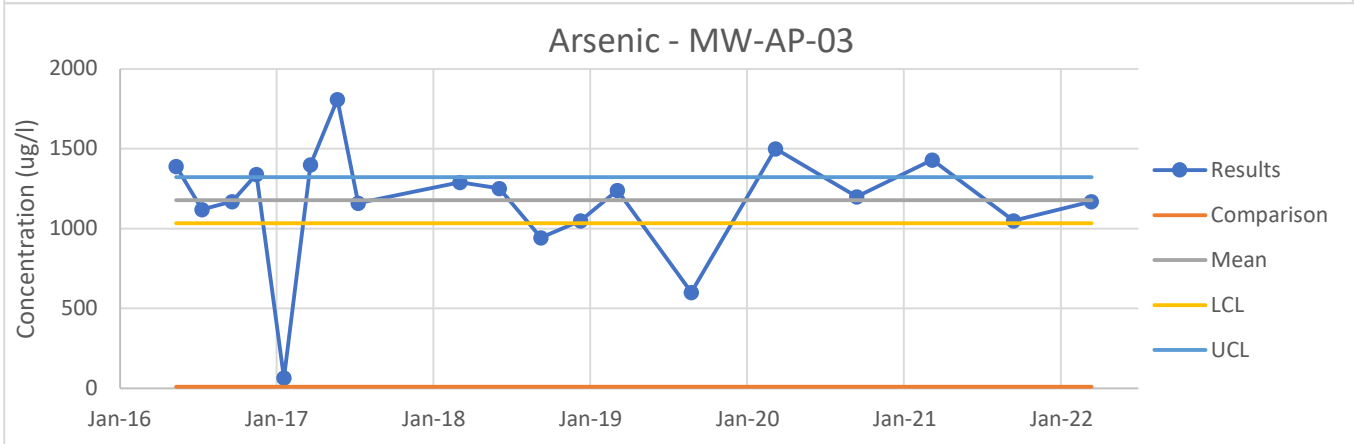
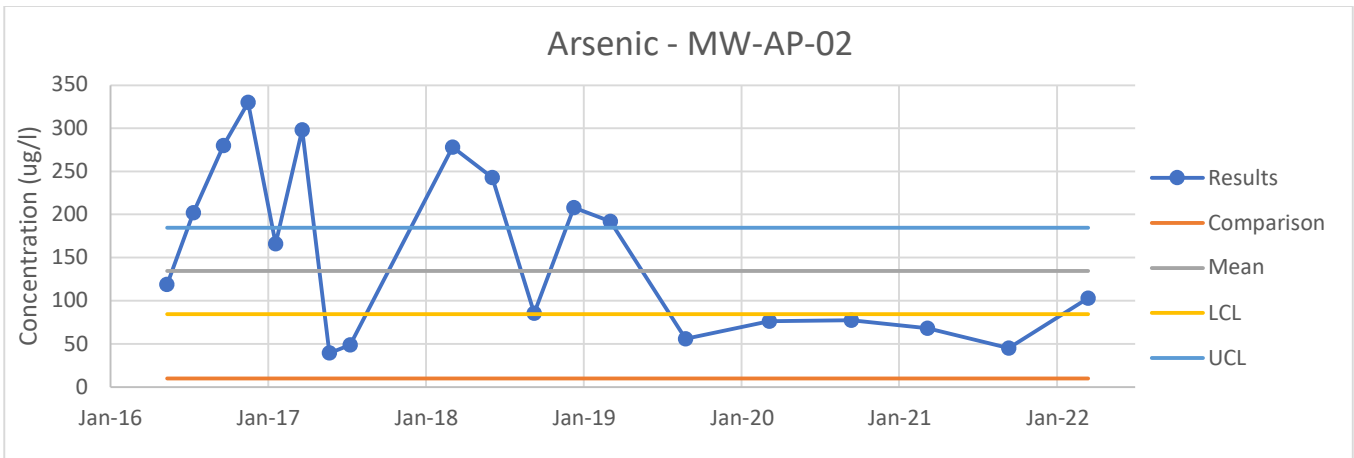
Suggested UCL to Use	
95% Student's-t UCL	0.778

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Appendix B

Wateree Ash Pond Confidence Limit Graphs

Wateree Ash Pond Confidence Limit Graphs



Appendix D

Second Semiannual Assessment Monitoring Program Statistical Evaluation



DOMINION ENERGY SOUTH CAROLINA

WATEREE STATION ASH POND SEMIANNUAL ASSESSMENT MONITORING

RICHLAND COUNTY, SOUTH CAROLINA

CCR GROUNDWATER ASSESSMENT MONITORING STATISTICAL ANALYSIS REPORT

For the September 2022 Sampling Event

November 20, 2022



A handwritten signature in blue ink, reading "Joyce E. Peterson".

Joyce Peterson, P.E.
Senior Environmental Engineer

A handwritten signature in blue ink, reading "Richard A. Mayer Jr.".

Richard A. Mayer Jr., P.G.
Project Manager

*TRC Environmental Corporation | Dominion Energy South Carolina
Wateree Station Ash Pond – Assessment Monitoring*

\\GREENVILLE-FP1\WPGVL\PTJ2\416559\0005 WATEREE\R4165590005-018 WATEREE AP CCR ASSESSMENT.DOCX

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Table 2	Data Sets for Confidence Interval Calculations
Table 3	Well/Constituent Pair Statistical Results

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Appendix A	ProUCL Statistical Outputs
Appendix B	Wateree Ash Pond Confidence Limit Graphs

Statistical Analysis Report

Groundwater Sampling

TRC Environmental Corporation (TRC) is providing this report of Groundwater Protection Standard (GWPS) exceedances for the Wateree Station Ash Pond for the tenth semiannual assessment monitoring event. Samples were collected on September 13th, 2022. The final laboratory analytical data packages for the event were received on September 27th, 2022, and the data validation report was received on September 30th, 2022. **Table 1** presents the September 2022 data for Appendix IV constituents. This report addresses results from Assessment Monitoring wells MW-AP-01, MW-AP-02, MW-AP-03, MW-AP-04, MW-AP-05, and MW-AP-08. The background well for the Ash Pond includes AP-MW-01A. A potentiometric surface map, based on the September 2022 calculated water table elevation data, is shown as **Figure 1**.

Statistical Analysis

Statistically Significant Level (SSL) exceedances of the GWPS include the following, thus the Ash Pond remains in Corrective Measures monitoring:

- For arsenic (comparison to UCL): MW-AP-02, MW-AP-03, and MW-AP-04.
- For lithium (comparison to UCL): MW-AP-03.

The Wateree Station Ash Pond was found to exceed background concentrations for CCR Rule Appendix III constituents following the first semiannual Detection Monitoring event in September 2017. The Ash Pond was then found to exceed Groundwater Protection Standards (GWPS) for arsenic and lithium following the first Compliance Monitoring event in March 2018.

The Wateree Ash Pond is currently conducting corrective measures. Corrective measure groundwater monitoring will continue until groundwater is restored to concentrations less than the groundwater protection standards. Groundwater concentrations for Appendix IV constituents will be considered restored when the following is true for each well-constituent (w/c) pair monitored at the Ash Pond CCR unit:

- For w/c pairs that have not exceeded the GWPS at a statistically significant level, the lower confidence limit (LCL) for that w/c pair is less than the GWPS, or
- For w/c pairs that have exceeded the GWPS at a statistically significant level, the upper confidence limit (UCL) for that w/c pair is less than the GWPS.

TRC reviewed the post-baseline data set for constituents that have exceeded the GWPS at a statistically significant level. This review was conducted as follows:

- The data sets consisted of one result per official CCR sampling event from March 2018 through September 2022. When verification resampling was conducted, the verification resampling result was used for the event. When duplicate samples were collected, the original (parent sample) concentration was used. **Table 2** presents the data used for the statistical comparisons to GWPS.

UCLs and LCLs were calculated for downgradient compliance monitoring wells using USEPA's ProUCL software (version 5.1) as follows:

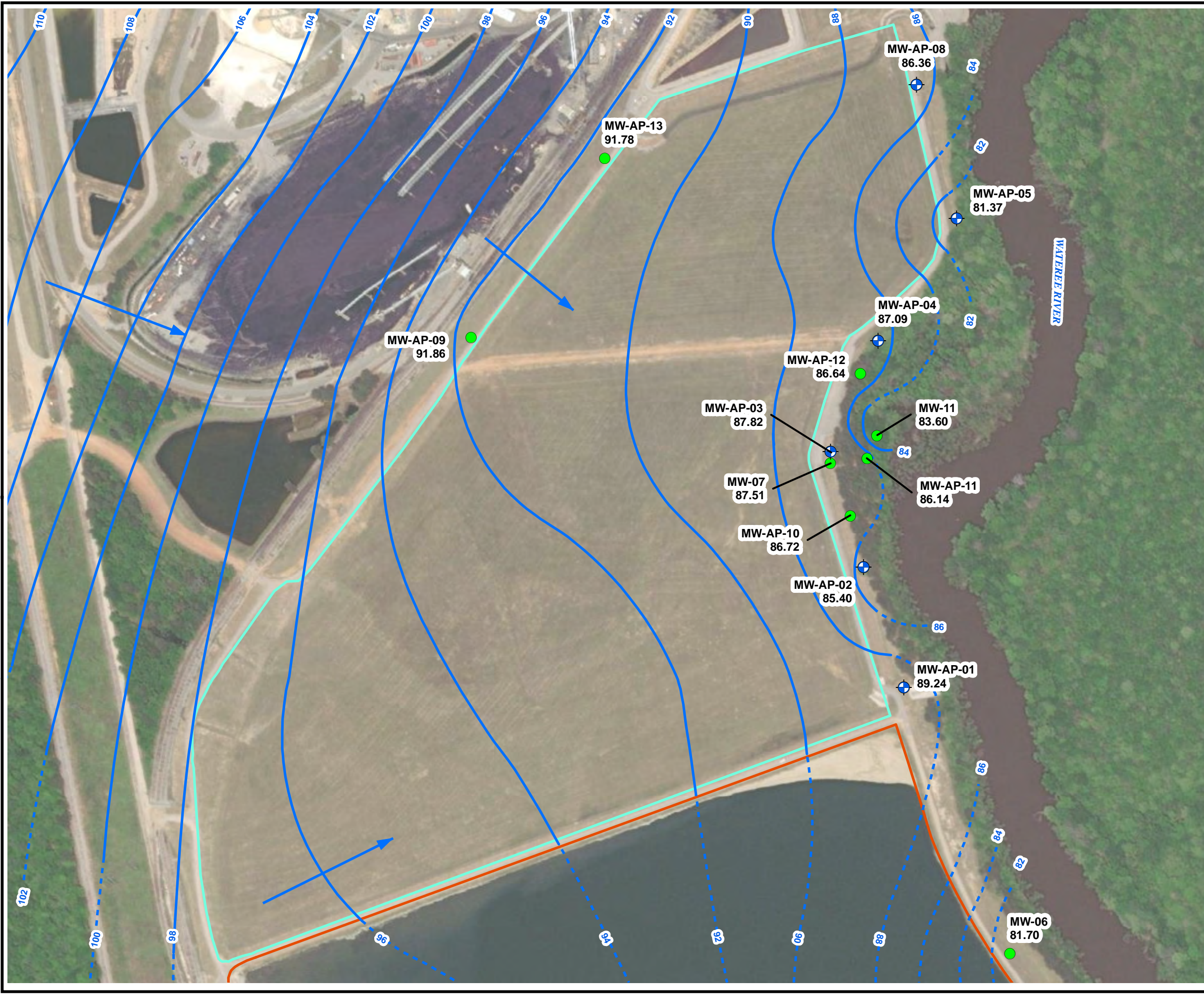
- For each w/c pair, no further statistical calculations were made if none of the results exceeded the GWPS on a direct comparison basis. A statistically significance exceedance of the LCL is not possible for these constituents.
- Calculations of UCLs were made based on the distribution of detected concentrations within each w/c pair data set.
- For w/c pair data sets for which ProUCL recommended use of a UCL premised on a normal distribution, the LCL was calculated based on the symmetry of the distribution around the mean.
- For lognormally distributed data, the data were log-transformed and entered into ProUCL. The results were re-transformed to base-10 numbers for reporting and comparing to GWPS.

ProUCL was used to test each w/c pair that had a direct exceedance of a GWPS for a decreasing or increasing trend using the Theil-Sen Trend Test.

Table 3 presents the results of the statistical evaluations for the September 2022 groundwater samples. For w/c pairs that have previously exceeded the GWPS (arsenic in MW-AP-02, MW-AP-03, and MW-AP-04 and lithium in MW-AP-03), the updated UCL is compared to the GWPS. For other constituents with a direct comparison exceedance of a GWPS (*i.e.*, arsenic in MW-AP-04, beryllium, cobalt, and radium 226/228), the LCL for each w/c pair was compared to the GWPS. **Table 3** also includes the results of the trend tests. The statistical outputs from ProUCL are provided in **Appendix A**. Confidence limit graphs for arsenic (MW-AP-02, MW-AP-03, MW-AP-04, and MW-AP-08), beryllium (MW-AP-08), cobalt (MW-AP-08), lithium (MW-AP-03), and radium (MW-AP-01, MW-AP-02, and MW-AP-03) are provided in **Appendix B**.

Figure

Plot Date: 12/19/2022, 12:46:52 PM by JYONTS -- LAYOUT: ANSIB(11"x17")
 Path: S:\PROJECTS\DominionSouth_Carolina\15_Waterree_South_CAR\15_Waterree_South_CAR\2022\2023\Figure1_CCR_Waterlevel_202203.mxd
 Coordinate System: NAD_1983_StatePlane_South_Carolina_FIPS_3900_Feet (Foot US)
 Map Rotation: 0



LEGEND

- Monitoring Well
- Event Piezometer
- Backfilled Clean Closed Ash Pond Area
- Polishing Pond
- 88.23** Water Elevation in feet above mean sea level (ft amsl)
- Water Table Elevation (ft amsl)
(2' Contour Intervals)
Dashed where inferred.
- Approximate Groundwater Flow Direction

NOTE:
 Aerial Image from ESRI World Imagery dated April 2021.



0 300 600
 Feet
 1" = 300'
 1:3,600

PROJECT:		DESC WATERREE STATION EASTOVER, SOUTH CAROLINA	
TITLE:		GROUNDWATER POTENTIOMETRIC MAP SEPTEMBER 6, 2022	
DRAWN BY:	J. YONTS	PROJ. NO.:	416559.0005.0000
CHECKED BY:	D. SZYNAL	FIGURE 1	
APPROVED BY:	R. MAYER		
DATE:	DECEMBER 2022		
		50 International Drive, Suite 150 Patwood Plaza Three Greenville, SC 29615 Phone: 864.281.0030 www.TRCCompanies.com	
FILE NO.:	Figure1_CCR_Waterlevel_202203.mxd		

Tables

Table 1 September 2022 Semiannual Corrective Measure Monitoring Concentrations

WELL	CONSTITUENT/GWPS /RESULT (µg/L except as noted) ^[1]														
	ANTIMONY 6	ARSENIC 10	BARIUM 2000	BERYLLIUM 4	CADMIUM 5	CHROMIUM 100	COBALT 6	FLUORIDE 4	LEAD 15	LITHIUM 40	MERCURY 2	MOLYBDENUM 100	RADIUM 226/228 5	SELENIUM 50	THALLIUM 2
MW-AP-01A	0.600 U	1.66 U	53.7	0.233 J	0.0300 U	1.00 U	0.506 J	0.0652 U	1.20 J	2.00 U	0.0670 U	0.167 U	1.50 U	1.50 U	0.125 U
MW-AP-01	0.600 U	1.66 U	264 J+	0.200 U	0.0300 U	1.00 U	0.100 U	0.339	0.500 U	2.00 U	0.0670 R	3.99	2.10 UJ	1.50 U	0.125 U
MW-AP-02	0.600 U	69.9	220 J+	0.200 U	0.0300 U	52.8	0.329 J	0.0962 J	0.500 U	7.11 J	0.0670 R	5.60	2.25 J	1.50 U	0.125 U
MW-AP-03	0.600 U	1,080	223 J+	0.200 U	0.0300 U	1.00 U	0.307 J	0.602	0.500 U	69.3	0.0670 R	25.1	3.50 J	1.50 U	0.125 U
MW-AP-04	0.600 U	33.5	205 J+	0.200 U	0.0300 U	3.16	0.189 J	0.494	0.880 J	2.00 U	0.0670 R	4.69	1.88 J	1.50 U	0.125 U
MW-AP-05	0.600 U	1.66 U	170 J+	0.200 U	0.0300 U	1.00 U	4.86	0.033 U	0.500 U	2.00 U	0.0670 R	0.167 U	1.72 J	1.50 U	0.125 U
MW-AP-08	0.600 U	10.5	172 J+	8.72	0.0880 J	2.75 J	22.1	0.975	0.500 U	16.8	0.0670 R	0.167 U	4.37 J	24.6	0.125 U

Shaded results exceed groundwater protection standards (GWPS) by direct comparison.

[1] Fluoride concentrations expressed in milligrams per liter (mg/L); Radium concentrations expressed in pico-Curies per liter (pCi/L).

U The analyte was not detected above the level of the sample reporting limit.

J Estimated concentration.

J+ Estimated concentration biased high.

UJ The analyte was not detected; the reporting limit is approximate and may be inaccurate or imprecise.

R Unreliable positive result: analyte may or may not be present in sample.

Table 2 Data Sets for Confidence Interval Calculations

WELL	CONSTITUENT [GWPS]	March 2018	June 2018	September 2018	December 2018	March 2019	August 2019	March 2020	September 2020	March 2021	September 2021	March 2022	September 2022
MW-AP-02	Arsenic [10]	278	243	85.4	208	192	55.8	76.1	77.2	68.1	45.0	103	69.9
MW-AP-03	Arsenic [10]	1,290	1,252	943	1,050	1,240	600	1,500	1,200	1,430	1,050	1,170	1,080
MW-AP-04	Arsenic [10]	29.6	43	49.1	45	21.6	22.9	9.14	10.4	13.6	13.6	10.3	33.5
MW-AP-08	Arsenic [10]	2.4	2.1	1.8	1.3	1.3	2.9	2.17	< 2.92	< 1.66	3.77	2.28	10.5
MW-AP-08	Beryllium [4]	1.6	1.3	0.85	0.43	0.725	2.218	1.35	1.0	2.35	1.6	4.31	8.72
MW-AP-08	Cobalt [6]	8.5	1.7	2.8	NS	0.40	1.7	6.52	2.8	0.813 J	5.84	4.25	22.1
MW-AP-03	Lithium [40]	96.2	109	53.2	97.8	87.2	32.7	74.3	67.2	72.6	56.6	67.8	69.3
MW-AP-01	Radium 226/228 [5]	1.58	0.527	1.756	1.73	1.577	2.23	2.203	1.91	1.83	1.58	9.95 J	2.10 J
MW-AP-02	Radium 226/228 [5]	1.281	2.855	0.993	1.648	2.824	1.605	2.166	2.3	2.19	1.281	10.4 J	2.25 J
MW-AP-03	Radium 226/228 [5]	1.617	2.71	1.639	2.86	3.46	2.95	2.185	3.01	1.29	1.617	7.56 J	3.50 J

Concentrations reported in µg/L except radium, which is reported in pCi/L

Shaded results exceed GWPS by direct comparison.

NS Well not sampled during that event

J Estimated concentration.

Table 3 Well/Constituent Pair Statistical Results

WELL	CONSTITUENT	GWPS	DISTRIBUTION	TREND	LCL	UCL	BASIS ^[1]
MW-AP-02	Arsenic	10	Normal	Decreasing	82.6	174.8	95% Student's-t UCL
MW-AP-03	Arsenic	10	Normal	None	1,039	1,299	95% Student's-t UCL
MW-AP-04	Arsenic	10	Normal	None	15.8	30.15	95% Student's-t UCL
MW-AP-08	Arsenic	10	Nonparametric	None	1.593	4.448	95% KM (t) UCL
MW-AP-08	Beryllium	4	Gamma	None	< 2.3	4.296	95% Adjusted Gamma UCL
MW-AP-08	Cobalt	6	Approx. Normal	None	1.861	8.579 ^[2]	95% Student's-t UCL
MW-AP-03	Lithium	40	Normal	Decreasing	63.86	87.18	95% Student's-t UCL
MW-AP-01	Radium 226/228	5	Nonparametric	Increasing	1.114	3.866	95% Student's-t UCL
MW-AP-02	Radium 226/228	5	Nonparametric	None	1.355	4.193	95% Student's-t UCL
MW-AP-03	Radium 226/228	5	Approx. Normal	None	2.054	3.906	95% Student's-t UCL

Shaded cells denote w/c pairs that statistically exceed the GWPS.

Concentrations reported in µg/L except radium, which is reported in pCi/L

[1] UCL basis recommended by USEPA's ProUCL v. 5.2 – see Appendix A

[2] Not an exceedance because the w/c pair has not yet exceeded the GWPS at an SSL (i.e., LCL).

Appendix A

ProUCL Statistical Outputs

Theil-Sen Text Outputs

	Theil-Sen Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.2 11/14/2022 5:27:08 PM
From File	WorkSheet_a.xls
Full Precision	OFF
Average Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Arsenic-mw-ap-02	
General Statistics	
Number of Events	11
Number of Values Reported (n)	11
Number of Values After Averaging	11
Number of Replicates	0
Minimum	45
Maximum	278
Mean	128.7
Geometric Mean	106.3
Median	77.2
Standard Deviation	84.37
Coefficient of Variation	0.655
Mann-Kendall Statistics	
M-K Test Value (S)	-31
Tabulated p-value	0.008
Standard Deviation of S	12.85
Standardized Value of S	-2.335
Approximate p-value	0.00976
Approximate inference for Theil-Sen Trend Test	
Number of Slopes	55
Theil-Sen Slope	-0.126
Theil-Sen Intercept	5602
M2'	38.06
One-sided 95% upper limit of Slope	-0.0557
95% LCL of Slope (0.025)	-0.199
95% UCL of Slope (0.975)	-0.0212
Statistically significant evidence of a decreasing	

trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43164	278	169.7	108.3
2	43256	243	158.1	84.88
3	43445	208	134.3	73.67
4	43530	192	123.6	68.36
5	43704	55.8	101.7	-45.94
6	43899	76.1	77.2	-1.1
7	44089	77.2	53.29	23.91
8	44265	68.1	31.08	37.02
9	44455	45	7.27	37.73
10	44637	103	-15.73	118.7
11	44818	69.9	-38.4	108.3
Arsenic-mw-ap-03				
General Statistics				
Number of Events				11
Number of Values Reported (n)				11
Number of Values After Averaging				11
Number of Replicates				0
Minimum				600
Maximum				1500
Mean				1169
Geometric Mean				1142
Median				1200
Standard Deviation				237.7
Coefficient of Variation				0.203
Mann-Kendall Statistics				
M-K Test Value (S)				-12
Tabulated p-value				0.179
Standard Deviation of S				12.81
Standardized Value of S				-0.859
Approximate p-value				0.195
Approximate inference for Theil-Sen Trend Test				
Number of Slopes				55
Theil-Sen Slope				-0.0716
Theil-Sen Intercept				4341

	M1	14.95		
	M2	40.05		
	95% LCL of Slope (0.025)	-0.415		
	95% UCL of Slope (0.975)	0.234		
Insufficient evidence to identify a significant trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43164	1290	1253	37.33
2	43256	1252	1246	5.918
3	43445	1050	1233	-182.6
4	43531	1240	1226	13.6
5	43704	600	1214	-614
6	43900	1500	1200	300
7	44090	1200	1186	13.6
8	44266	1430	1174	256.2
9	44456	1050	1160	-110.2
10	44637	1170	1147	22.77
11	44818	1080	1134	-54.34
Arsenic-mw-ap-04				
General Statistics				
Number of Events				11
Number of Values Reported (n)				11
Number of Values After Averaging				11
Number of Replicates				0
Minimum				9.14
Maximum				45
Mean				22.97
Geometric Mean				19.68
Median				21.6
Standard Deviation				13.15
Coefficient of Variation				0.572
Mann-Kendall Statistics				
M-K Test Value (S)				-18
Tabulated p-value				0.082
Standard Deviation of S				12.81
Standardized Value of S				-1.327

Approximate p-value	0.0922			
Approximate inference for Theil-Sen Trend Test				
Number of Slopes	55			
Theil-Sen Slope	-0.0124			
Theil-Sen Intercept	565.4			
M1	14.95			
M2	40.05			
95% LCL of Slope (0.025)	-0.0291			
95% UCL of Slope (0.975)	0.00668			
Insufficient evidence to identify a significant trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43165	29.6	30.69	-1.093
2	43256	43	29.57	13.43
3	43445	45	27.22	17.78
4	43535	21.6	26.11	-4.509
5	43705	22.9	24	-1.103
6	43899	9.14	21.6	-12.46
7	44089	10.4	19.25	-8.846
8	44267	13.6	17.05	-3.447
9	44457	13.6	14.69	-1.093
10	44637	10.3	12.45	-2.153
11	44818	33.5	10.22	23.28
Arsenic-mw-ap-08				
General Statistics				
Number of Events		11		
Number of Values Reported (n)		11		
Number of Values After Averaging		11		
Number of Replicates		0		
Minimum		1.3		
Maximum		10.5		
Mean		3.127		
Geometric Mean		2.639		
Median		2.4		
Standard Deviation		2.532		
Coefficient of Variation		0.81		

Mann-Kendall Statistics				
M-K Test Value (S)	20			
Tabulated p-value	0.06			
Standard Deviation of S	12.81			
Standardized Value of S	1.484			
Approximate p-value	0.069			
Approximate inference for Theil-Sen Trend Test				
Number of Slopes	55			
Theil-Sen Slope	9.8204E-4			
Theil-Sen Intercept	-40.71			
M1	14.95			
M2	40.05			
95% LCL of Slope (0.025)	-3.190E-4			
95% UCL of Slope (0.975)	0.00293			
Insufficient evidence to identify a significant trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43165	2.4	1.678	0.722
2	43255	2.1	1.767	0.333
3	43445	1.3	1.953	-0.653
4	43586	2.4	2.092	0.308
5	43705	2.9	2.209	0.691
6	43900	2.17	2.4	-0.23
7	44090	2.92	2.587	0.333
8	44266	1.66	2.759	-1.099
9	44456	3.77	2.946	0.824
10	44637	2.28	3.124	-0.844
11	44818	10.5	3.301	7.199

Theil-Sen Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.2 11/14/2022 5:31:18 PM
From File	WorkSheet_a.xls
Full Precision	OFF
Average Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05

Beryllium-mw-ap-08	
General Statistics	
Number of Events	11
Number of Values Reported (n)	11
Number of Values After Averaging	11
Number of Replicates	0
Minimum	0.43
Maximum	8.72
Mean	2.298
Geometric Mean	1.587
Median	1.35
Standard Deviation	2.436
Coefficient of Variation	1.06
Mann-Kendall Statistics	
M-K Test Value (S)	25
Tabulated p-value	0.03
Standard Deviation of S	12.85
Standardized Value of S	1.868
Approximate p-value	0.0309
Approximate inference for Theil-Sen Trend Test	
Number of Slopes	55
Theil-Sen Slope	0.00183
Theil-Sen Intercept	-78.78
M1	14.91
M2	40.09
95% LCL of Slope (0.025)	-2.726E-4
95% UCL of Slope (0.975)	0.00435
Insufficient evidence to identify a significant	

trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43165	1.6	0.00833	1.592
2	43255	1.3	0.173	1.127
3	43445	0.85	0.519	0.331
4	43586	0.43	0.777	-0.347
5	43705	0.725	0.994	-0.269
6	43900	2.218	1.35	0.868
7	44090	1.35	1.697	-0.347
8	44266	1	2.018	-1.018
9	44456	2.35	2.366	-0.0158
10	44637	4.74	2.696	2.044
11	44818	8.72	3.025	5.695

Theil-Sen Trend Test Analysis

User Selected Options

Date/Time of Computation ProUCL 5.2 12/16/2022 3:58:47 PM
From File WorkSheet.xls
Full Precision OFF
Average Replicates Replicates at sampling events will be averaged!
Confidence Coefficient 0.95
Level of Significance 0.05

Cobalt-mw-ap-08

General Statistics

Number of Events	11
Number of Values Reported (n)	11
Number of Values After Averaging	11
Number of Replicates	0
Minimum	0.396
Maximum	22.1
Mean	5.22
Geometric Mean	3.062
Median	2.8
Standard Deviation	6.147
Coefficient of Variation	1.178

Mann-Kendall Statistics

M-K Test Value (S)	11
Tabulated p-value	0.223
Standard Deviation of S	12.77
Standardized Value of S	0.783
Approximate p-value	0.217

Approximate inference for Theil-Sen Trend Test

Number of Slopes	55
Theil-Sen Slope	0.00265
Theil-Sen Intercept	-113.5
M1	14.99
M2	40.01
95% LCL of Slope (0.025)	-0.00289
95% UCL of Slope (0.975)	0.00823

Insufficient evidence to identify a significant trend at the specified level of significance.

Theil-Sen Trend Test Estimates and Residuals

	Events	Values	Estimates	Residuals
#				
1	43165	8.5	0.853	7.647
2	43255	1.7	1.092	0.608
3	43445	2.8	1.595	1.205
4	43586	0.396	1.968	-1.572
5	43705	1.7	2.283	-0.583
6	43900	6.52	2.8	3.72
7	44090	2.8	3.303	-0.503
8	44266	0.813	3.769	-2.956
9	44456	5.84	4.274	1.566
10	44637	4.25	4.753	-0.503
11	44818	22.1	5.231	16.87

Theil-Sen Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.2 11/14/2022 5:35:17 PM
From File	WorkSheet_a.xls
Full Precision	OFF
Average Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05
Lithium-mw-ap-03	
General Statistics	
Number of Events	11
Number of Values Reported (n)	11
Number of Values After Averaging	11
Number of Replicates	0
Minimum	32.7
Maximum	109
Mean	75.52
Geometric Mean	72.29
Median	72.6
Standard Deviation	21.33
Coefficient of Variation	0.282
Mann-Kendall Statistics	
M-K Test Value (S)	-27
Tabulated p-value	0.02
Standard Deviation of S	12.85
Standardized Value of S	-2.024
Approximate p-value	0.0215
Approximate inference for Theil-Sen Trend Test	
Number of Slopes	55
Theil-Sen Slope	-0.0252
Theil-Sen Intercept	1177
M2'	38.06
One-sided 95% upper limit of Slope	-0.00863
95% LCL of Slope (0.025)	-0.0377
95% UCL of Slope (0.975)	-0.00538
Statistically significant evidence of a decreasing	

trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43164	96.2	91.12	5.083
2	43256	109	88.8	20.2
3	43445	97.8	84.05	13.75
4	43531	87.2	81.88	5.316
5	43704	32.7	77.53	-44.83
6	43900	74.3	72.6	1.7
7	44090	67.2	67.82	-0.62
8	44266	72.6	63.38	9.22
9	44456	56.6	58.62	-2.023
10	44637	67.8	54.05	13.75
11	44818	69.3	49.51	19.79

Theil-Sen Trend Test Analysis	
User Selected Options	
Date/Time of Computation	ProUCL 5.2 11/14/2022 5:37:37 PM
From File	WorkSheet_a.xls
Full Precision	OFF
Average Replicates	Replicates at sampling events will be averaged!
Confidence Coefficient	0.95
Level of Significance	0.05
Radium-mw-ap-01	
General Statistics	
Number of Events	11
Number of Values Reported (n)	11
Number of Values After Averaging	11
Number of Replicates	0
Minimum	0.527
Maximum	9.95
Mean	2.705
Geometric Mean	2.073
Median	1.83
Standard Deviation	2.58
Coefficient of Variation	0.954
Mann-Kendall Statistics	
M-K Test Value (S)	31
Tabulated p-value	0.008
Standard Deviation of S	12.85
Standardized Value of S	2.335
Approximate p-value	0.00976
Approximate inference for Theil-Sen Trend Test	
Number of Slopes	55
Theil-Sen Slope	0.00109
Theil-Sen Intercept	-45.89
M1'	16.94
One-sided 95% lower limit of Slope	2.4148E-4
95% LCL of Slope (0.025)	1.8070E-4
95% UCL of Slope (0.975)	0.00269
Statistically significant evidence of an increasing	

trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43164	1.58	1.031	0.549
2	43256	0.527	1.131	-0.604
3	43445	1.756	1.336	0.42
4	43530	1.73	1.429	0.301
5	43704	1.577	1.618	-0.041
6	43899	2.23	1.83	0.4
7	44089	2.203	2.037	0.166
8	44265	1.91	2.228	-0.318
9	44455	1.83	2.434	-0.604
10	44637	9.95	2.633	7.317
11	44818	4.46	2.829	1.631
Radium-mw-ap-02				
General Statistics				
Number of Events				11
Number of Values Reported (n)				11
Number of Values After Averaging				11
Number of Replicates				0
Minimum				0.993
Maximum				10.4
Mean				2.774
Geometric Mean				2.234
Median				2.19
Standard Deviation				2.596
Coefficient of Variation				0.936
Mann-Kendall Statistics				
M-K Test Value (S)				19
Tabulated p-value				0.082
Standard Deviation of S				12.85
Standardized Value of S				1.401
Approximate p-value				0.0806
Approximate inference for Theil-Sen Trend Test				
Number of Slopes				55
Theil-Sen Slope				7.5930E-4
Theil-Sen Intercept				-31.14

	M1	14.91		
	M2	40.09		
	95% LCL of Slope (0.025)	-3.987E-4		
	95% UCL of Slope (0.975)	0.00198		
Insufficient evidence to identify a significant trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43164	1.281	1.632	-0.351
2	43256	2.855	1.702	1.153
3	43445	0.993	1.845	-0.852
4	43530	1.648	1.91	-0.262
5	43704	2.824	2.042	0.782
6	43899	1.605	2.19	-0.585
7	44089	2.166	2.334	-0.168
8	44265	2.3	2.468	-0.168
9	44455	2.19	2.612	-0.422
10	44637	10.4	2.751	7.649
11	44818	2.25	2.888	-0.638
Radium-mw-ap-03				
General Statistics				
Number of Events			11	
Number of Values Reported (n)			11	
Number of Values After Averaging			11	
Number of Replicates			0	
Minimum			1.29	
Maximum			7.56	
Mean			2.98	
Geometric Mean			2.659	
Median			2.86	
Standard Deviation			1.694	
Coefficient of Variation			0.569	
Mann-Kendall Statistics				
M-K Test Value (S)			23	
Tabulated p-value			0.043	
Standard Deviation of S			12.85	
Standardized Value of S			1.713	

Approximate p-value		0.0434		
Approximate inference for Theil-Sen Trend Test				
Number of Slopes		55		
Theil-Sen Slope		6.1339E-4		
Theil-Sen Intercept		-24.07		
M1		14.91		
M2		40.09		
95% LCL of Slope (0.025)		-3.704E-4		
95% UCL of Slope (0.975)		0.00342		
Insufficient evidence to identify a significant trend at the specified level of significance.				
Theil-Sen Trend Test Estimates and Residuals				
#	Events	Values	Estimates	Residuals
1	43164	1.617	2.409	-0.792
2	43256	2.71	2.465	0.245
3	43445	1.639	2.581	-0.942
4	43531	2.86	2.634	0.226
5	43704	3.46	2.74	0.72
6	43900	2.95	2.86	0.09
7	44090	2.185	2.977	-0.792
8	44266	3.01	3.085	-0.0748
9	44456	1.29	3.201	-1.911
10	44637	7.56	3.312	4.248
11	44818	3.5	3.423	0.0771

Upper Confidence Limits

UCL Statistics for Data Sets with Non-Detects			
User Selected Options			
Date/Time of Computation	ProUCL 5.2 11/14/2022 1:58:51 PM		
From File	WorkSheet_a.xls		
Full Precision	OFF		
Confidence Coefficient	95%		
Number of Bootstrap Operations	2000		
Arsenic (mw-ap-02)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
		Number of Missing Observations	0
Minimum	45	Mean	128.7
Maximum	278	Median	77.2
SD	84.37	Std. Error of Mean	25.44
Coefficient of Variation	0.655	Skewness	0.787
Normal GOF Test			
Shapiro Wilk Test Statistic	0.833	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.275	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data appear Normal at 1% Significance Level	
Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	174.8	95% Adjusted-CLT UCL (Chen-1995)	177
		95% Modified-t UCL (Johnson-1978)	175.8

Gamma GOF Test			
A-D Test Statistic	0.716	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.735	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.262	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.257	Data Not Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	2.762	k star (bias corrected MLE)	2.069
Theta hat (MLE)	46.61	Theta star (bias corrected MLE)	62.21
nu hat (MLE)	60.76	nu star (bias corrected)	45.52
MLE Mean (bias corrected)	128.7	MLE Sd (bias corrected)	89.49
		Approximate Chi Square Value (0.05)	31.05
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	29.11
Assuming Gamma Distribution			
95% Approximate Gamma UCL	188.8	95% Adjusted Gamma UCL	201.3
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.893	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.235	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data Not Lognormal at 10% Significance Level	
Data appear Approximate Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	3.807	Mean of logged Data	4.666
Maximum of Logged Data	5.628	SD of logged Data	0.644
Assuming Lognormal Distribution			

95% H-UCL	212.4	90% Chebyshev (MVUE) UCL	205
95% Chebyshev (MVUE) UCL	239.8	97.5% Chebyshev (MVUE) UCL	288.2
99% Chebyshev (MVUE) UCL	383.3		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	170.6	95% BCA Bootstrap UCL	175.1
95% Standard Bootstrap UCL	168.9	95% Bootstrap-t UCL	186.6
95% Hall's Bootstrap UCL	165	95% Percentile Bootstrap UCL	170.6
90% Chebyshev(Mean, Sd) UCL	205.1	95% Chebyshev(Mean, Sd) UCL	239.6
97.5% Chebyshev(Mean, Sd) UCL	287.6	99% Chebyshev(Mean, Sd) UCL	381.8
Suggested UCL to Use			
95% Student's-t UCL	174.8		
<p>Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.</p> <p>Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.</p> <p>However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.</p>			
Arsenic (mw-ap-03)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	600	Mean	1169
Maximum	1500	Median	1200
SD	237.7	Std. Error of Mean	71.68
Coefficient of Variation	0.203	Skewness	-1.2

Normal GOF Test			
Shapiro Wilk Test Statistic	0.901	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.217	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data appear Normal at 1% Significance Level	
Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	1299	95% Adjusted-CLT UCL (Chen-1995)	1259
		95% Modified-t UCL (Johnson-1978)	1295
Gamma GOF Test			
A-D Test Statistic	0.679	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.729	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.248	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.255	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	21.36	k star (bias corrected MLE)	15.59
Theta hat (MLE)	54.75	Theta star (bias corrected MLE)	74.98
nu hat (MLE)	469.9	nu star (bias corrected)	343.1
MLE Mean (bias corrected)	1169	MLE Sd (bias corrected)	296.1
		Approximate Chi Square Value (0.05)	301.1
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	294.7
Assuming Gamma Distribution			
95% Approximate Gamma UCL	1332	95% Adjusted Gamma UCL	1361

Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.801	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.274	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	6.397	Mean of logged Data	7.041
Maximum of Logged Data	7.313	SD of logged Data	0.243
Assuming Lognormal Distribution			
95% H-UCL	1360	90% Chebyshev (MVUE) UCL	1432
95% Chebyshev (MVUE) UCL	1549	97.5% Chebyshev (MVUE) UCL	1712
99% Chebyshev (MVUE) UCL	2032		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	1287	95% BCA Bootstrap UCL	1268
95% Standard Bootstrap UCL	1282	95% Bootstrap-t UCL	1276
95% Hall's Bootstrap UCL	1273	95% Percentile Bootstrap UCL	1276
90% Chebyshev(Mean, Sd) UCL	1384	95% Chebyshev(Mean, Sd) UCL	1482
97.5% Chebyshev(Mean, Sd) UCL	1617	99% Chebyshev(Mean, Sd) UCL	1883
Suggested UCL to Use			
95% Student's-t UCL	1299		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.

Arsenic (mw-ap-04)

General Statistics

Total Number of Observations	11	Number of Distinct Observations	10
		Number of Missing Observations	0
Minimum	9.14	Mean	22.97
Maximum	45	Median	21.6
SD	13.15	Std. Error of Mean	3.964
Coefficient of Variation	0.572	Skewness	0.639

Normal GOF Test

Shapiro Wilk Test Statistic	0.883	Shapiro Wilk GOF Test
1% Shapiro Wilk Critical Value	0.792	Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.216	Lilliefors GOF Test
1% Lilliefors Critical Value	0.291	Data appear Normal at 1% Significance Level

Data appear Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	30.15	95% Adjusted-CLT UCL (Chen-1995)	30.3
		95% Modified-t UCL (Johnson-1978)	30.28

Gamma GOF Test

A-D Test Statistic	0.433	Anderson-Darling Gamma GOF Test
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5% A-D Critical Value	0.733	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.213	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.257	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	3.399	k star (bias corrected MLE)	2.532
Theta hat (MLE)	6.758	Theta star (bias corrected MLE)	9.07
nu hat (MLE)	74.77	nu star (bias corrected)	55.71
MLE Mean (bias corrected)	22.97	MLE Sd (bias corrected)	14.43
		Approximate Chi Square Value (0.05)	39.56
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	37.35
Assuming Gamma Distribution			
95% Approximate Gamma UCL	32.35	95% Adjusted Gamma UCL	34.26
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.913	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.19	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.213	Mean of logged Data	2.98
Maximum of Logged Data	3.807	SD of logged Data	0.589
Assuming Lognormal Distribution			
95% H-UCL	35.89	90% Chebyshev (MVUE) UCL	35.57
95% Chebyshev (MVUE) UCL	41.27	97.5% Chebyshev (MVUE) UCL	49.18

99% Chebyshev (MVUE) UCL	64.72		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	29.49	95% BCA Bootstrap UCL	30.05
95% Standard Bootstrap UCL	29.36	95% Bootstrap-t UCL	32.65
95% Hall's Bootstrap UCL	30.58	95% Percentile Bootstrap UCL	29.56
90% Chebyshev(Mean, Sd) UCL	34.86	95% Chebyshev(Mean, Sd) UCL	40.25
97.5% Chebyshev(Mean, Sd) UCL	47.72	99% Chebyshev(Mean, Sd) UCL	62.41
Suggested UCL to Use			
95% Student's-t UCL	30.15		
<p>Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.</p> <p>Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.</p> <p>However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.</p>			
Arsenic (mw-ap-08)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	10
Number of Detects	9	Number of Non-Detects	2
Number of Distinct Detects	8	Number of Distinct Non-Detects	2
Minimum Detect	1.3	Minimum Non-Detect	1.66
Maximum Detect	10.5	Maximum Non-Detect	2.92
Variance Detects	7.7	Percent Non-Detects	18.18%
Mean Detects	3.313	SD Detects	2.775
Median Detects	2.4	CV Detects	0.837

Skewness Detects	2.686	Kurtosis Detects	7.585
Mean of Logged Detects	1.011	SD of Logged Detects	0.577
Normal GOF Test on Detects Only			
Shapiro Wilk Test Statistic	0.607	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.764	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.337	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.316	Detected Data Not Normal at 1% Significance Level	
Detected Data Not Normal at 1% Significance Level			
Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs			
KM Mean	3.021	KM Standard Error of Mean	0.788
90KM SD	2.457	95% KM (BCA) UCL	4.58
95% KM (t) UCL	4.448	95% KM (Percentile Bootstrap) UCL	4.455
95% KM (z) UCL	4.316	95% KM Bootstrap t UCL	7.631
90% KM Chebyshev UCL	5.384	95% KM Chebyshev UCL	6.454
97.5% KM Chebyshev UCL	7.94	99% KM Chebyshev UCL	10.86
Gamma GOF Tests on Detected Observations Only			
A-D Test Statistic	1.072	Anderson-Darling GOF Test	
5% A-D Critical Value	0.727	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.288	Kolmogorov-Smirnov GOF	
5% K-S Critical Value	0.282	Detected Data Not Gamma Distributed at 5% Significance Level	
Detected Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics on Detected Data Only			
k hat (MLE)	2.827	k star (bias corrected MLE)	1.959
Theta hat (MLE)	1.172	Theta star (bias corrected MLE)	1.691
nu hat (MLE)	50.89	nu star (bias corrected)	35.26
Mean (detects)	3.313		

Gamma ROS Statistics using Imputed Non-Detects			
GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs			
GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)			
For such situations, GROS method may yield incorrect values of UCLs and BTVs			
This is especially true when the sample size is small.			
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates			
Minimum	0.228	Mean	2.913
Maximum	10.5	Median	2.28
SD	2.666	CV	0.915
k hat (MLE)	1.742	k star (bias corrected MLE)	1.327
Theta hat (MLE)	1.672	Theta star (bias corrected MLE)	2.195
nu hat (MLE)	38.32	nu star (bias corrected)	29.2
Adjusted Level of Significance (β)	0.0278		
Approximate Chi Square Value (29.20, α)	17.86	Adjusted Chi Square Value (29.20, β)	16.43
95% Gamma Approximate UCL	4.761	95% Gamma Adjusted UCL	5.176
Estimates of Gamma Parameters using KM Estimates			
Mean (KM)	3.021	SD (KM)	2.457
Variance (KM)	6.039	SE of Mean (KM)	0.788
k hat (KM)	1.511	k star (KM)	1.159
nu hat (KM)	33.24	nu star (KM)	25.51
theta hat (KM)	1.999	theta star (KM)	2.605
80% gamma percentile (KM)	4.799	90% gamma percentile (KM)	6.706
95% gamma percentile (KM)	8.592	99% gamma percentile (KM)	12.92
Gamma Kaplan-Meier (KM) Statistics			
Approximate Chi Square Value (25.51, α)	15	Adjusted Chi Square Value (25.51, β)	13.7
95% KM Approximate Gamma UCL	5.136	95% KM Adjusted Gamma UCL	5.623
Lognormal GOF Test on Detected Observations Only			
Shapiro Wilk Test Statistic	0.826	Shapiro Wilk GOF Test	

10% Shapiro Wilk Critical Value	0.859	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.259	Lilliefors GOF Test	
10% Lilliefors Critical Value	0.252	Detected Data Not Lognormal at 10% Significance Level	
Detected Data Not Lognormal at 10% Significance Level			
Lognormal ROS Statistics Using Imputed Non-Detects			
Mean in Original Scale	3.011	Mean in Log Scale	0.91
SD in Original Scale	2.581	SD in Log Scale	0.58
95% t UCL (assumes normality of ROS data)	4.422	95% Percentile Bootstrap UCL	4.436
95% BCA Bootstrap UCL	5.265	95% Bootstrap t UCL	7.781
95% H-UCL (Log ROS)	4.466		
Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution			
KM Mean (logged)	0.915	KM Geo Mean	2.498
KM SD (logged)	0.546	95% Critical H Value (KM-Log)	2.238
KM Standard Error of Mean (logged)	0.177	95% H-UCL (KM -Log)	4.27
KM SD (logged)	0.546	95% Critical H Value (KM-Log)	2.238
KM Standard Error of Mean (logged)	0.177		
DL/2 Statistics			
DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	2.919	Mean in Log Scale	0.844
SD in Original Scale	2.636	SD in Log Scale	0.647
95% t UCL (Assumes normality)	4.36	95% H-Stat UCL	4.673
DL/2 is not a recommended method, provided for comparisons and historical reasons			
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			

Suggested UCL to Use			
95% KM (t) UCL	4.448		
<p>Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.</p> <p>Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.</p> <p>However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.</p>			
Beryllium (mw-ap-08)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
		Number of Missing Observations	0
Minimum	0.43	Mean	2.298
Maximum	8.72	Median	1.35
SD	2.436	Std. Error of Mean	0.734
Coefficient of Variation	1.06	Skewness	2.211
Normal GOF Test			
Shapiro Wilk Test Statistic	0.714	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.31	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	3.63	95% Adjusted-CLT UCL (Chen-1995)	4.03
		95% Modified-t UCL (Johnson-1978)	3.711
Gamma GOF Test			

A-D Test Statistic	0.511	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.742	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.199	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.26	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	1.494	k star (bias corrected MLE)	1.147
Theta hat (MLE)	1.539	Theta star (bias corrected MLE)	2.004
nu hat (MLE)	32.86	nu star (bias corrected)	25.23
MLE Mean (bias corrected)	2.298	MLE Sd (bias corrected)	2.146
		Approximate Chi Square Value (0.05)	14.79
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	13.5
Assuming Gamma Distribution			
95% Approximate Gamma UCL	3.921	95% Adjusted Gamma UCL	4.296
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.967	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.142	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.844	Mean of logged Data	0.462
Maximum of Logged Data	2.166	SD of logged Data	0.858
Assuming Lognormal Distribution			
95% H-UCL	4.809	90% Chebyshev (MVUE) UCL	3.985

95% Chebyshev (MVUE) UCL	4.795	97.5% Chebyshev (MVUE) UCL	5.92
99% Chebyshev (MVUE) UCL	8.128		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	3.507	95% BCA Bootstrap UCL	4.082
95% Standard Bootstrap UCL	3.445	95% Bootstrap-t UCL	6.112
95% Hall's Bootstrap UCL	9.463	95% Percentile Bootstrap UCL	3.554
90% Chebyshev(Mean, Sd) UCL	4.502	95% Chebyshev(Mean, Sd) UCL	5.5
97.5% Chebyshev(Mean, Sd) UCL	6.885	99% Chebyshev(Mean, Sd) UCL	9.607
Suggested UCL to Use			
95% Adjusted Gamma UCL	4.296		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
UCL Statistics for Uncensored Full Data Sets			
User Selected Options			
Date/Time of Computation	ProUCL 5.2 12/16/2022 4:07:59 PM		
From File	WorkSheet.xls		
Full Precision	OFF		

Confidence Coefficient	95%		
Number of Bootstrap Operations	2000		
Cobalt			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	0.396	Mean	5.22
Maximum	22.1	Median	2.8
SD	6.147	Std. Error of Mean	1.853
Coefficient of Variation	1.178	Skewness	2.385
Normal GOF Test			
Shapiro Wilk Test Statistic	0.719	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.234	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data appear Normal at 1% Significance Level	
Data appear Approximate Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	8.579	95% Adjusted-CLT UCL (Chen-1995)	9.693
		95% Modified-t UCL (Johnson-1978)	8.801
Gamma GOF Test			
A-D Test Statistic	0.24	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.75	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.143	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.262	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			

k hat (MLE)	1.073	k star (bias corrected MLE)	0.841
Theta hat (MLE)	4.864	Theta star (bias corrected MLE)	6.206
nu hat (MLE)	23.61	nu star (bias corrected)	18.51
MLE Mean (bias corrected)	5.22	MLE Sd (bias corrected)	5.691
		Approximate Chi Square Value (0.05)	9.757
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	8.739
Assuming Gamma Distribution			
95% Approximate Gamma UCL	9.9	95% Adjusted Gamma UCL	11.05
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.987	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.119	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.926	Mean of logged Data	1.119
Maximum of Logged Data	3.096	SD of logged Data	1.127
Assuming Lognormal Distribution			
95% H-UCL	18.37	90% Chebyshev (MVUE) UCL	11.1
95% Chebyshev (MVUE) UCL	13.72	97.5% Chebyshev (MVUE) UCL	17.36
99% Chebyshev (MVUE) UCL	24.5		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	8.269	95% BCA Bootstrap UCL	10.05
95% Standard Bootstrap UCL	8.1	95% Bootstrap-t UCL	12.67
95% Hall's Bootstrap UCL	20.67	95% Percentile Bootstrap UCL	8.311
90% Chebyshev(Mean, Sd) UCL	10.78	95% Chebyshev(Mean, Sd) UCL	13.3

97.5% Chebyshev(Mean, Sd) UCL	16.79	99% Chebyshev(Mean, Sd) UCL	23.66
Suggested UCL to Use			
95% Student's-t UCL	8.579		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
When a data set follows an approximate distribution passing only one of the GOF tests,			
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
Lithium (mw-ap-03)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
		Number of Missing Observations	0
Minimum	32.7	Mean	75.52
Maximum	109	Median	72.6
SD	21.33	Std. Error of Mean	6.432
Coefficient of Variation	0.282	Skewness	-0.347
Normal GOF Test			
Shapiro Wilk Test Statistic	0.959	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.166	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data appear Normal at 1% Significance Level	

Data appear Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	87.18	95% Adjusted-CLT UCL (Chen-1995)	85.38
		95% Modified-t UCL (Johnson-1978)	87.06
Gamma GOF Test			
A-D Test Statistic	0.396	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.729	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.204	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.255	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	11.62	k star (bias corrected MLE)	8.512
Theta hat (MLE)	6.498	Theta star (bias corrected MLE)	8.872
nu hat (MLE)	255.7	nu star (bias corrected)	187.3
MLE Mean (bias corrected)	75.52	MLE Sd (bias corrected)	25.88
		Approximate Chi Square Value (0.05)	156.6
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	152
Assuming Gamma Distribution			
95% Approximate Gamma UCL	90.3	95% Adjusted Gamma UCL	93.01
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.886	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.23	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			

Lognormal Statistics			
Minimum of Logged Data	3.487	Mean of logged Data	4.281
Maximum of Logged Data	4.691	SD of logged Data	0.328
Assuming Lognormal Distribution			
95% H-UCL	93.68	90% Chebyshev (MVUE) UCL	98.67
95% Chebyshev (MVUE) UCL	109	97.5% Chebyshev (MVUE) UCL	123.3
99% Chebyshev (MVUE) UCL	151.4		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	86.1	95% BCA Bootstrap UCL	85.53
95% Standard Bootstrap UCL	85.7	95% Bootstrap-t UCL	87.17
95% Hall's Bootstrap UCL	86.79	95% Percentile Bootstrap UCL	85.71
90% Chebyshev(Mean, Sd) UCL	94.81	95% Chebyshev(Mean, Sd) UCL	103.6
97.5% Chebyshev(Mean, Sd) UCL	115.7	99% Chebyshev(Mean, Sd) UCL	139.5
Suggested UCL to Use			
95% Student's-t UCL	87.18		
<p>Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.</p> <p>Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.</p> <p>However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.</p>			
<p>Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positively skewed data sets.</p>			
Radium (mw-ap-01)			
General Statistics			

Total Number of Observations	11	Number of Distinct Observations	11
		Number of Missing Observations	0
Minimum	0.527	Mean	2.49
Maximum	9.95	Median	1.83
SD	2.517	Std. Error of Mean	0.759
Coefficient of Variation	1.011	Skewness	3.101
Normal GOF Test			
Shapiro Wilk Test Statistic	0.513	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.45	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	3.866	95% Adjusted-CLT UCL (Chen-1995)	4.497
		95% Modified-t UCL (Johnson-1978)	3.984
Gamma GOF Test			
A-D Test Statistic	1.617	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.738	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.38	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.258	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	2.137	k star (bias corrected MLE)	1.615
Theta hat (MLE)	1.165	Theta star (bias corrected MLE)	1.542
nu hat (MLE)	47.02	nu star (bias corrected)	35.53

MLE Mean (bias corrected)	2.49	MLE Sd (bias corrected)	1.96
		Approximate Chi Square Value (0.05)	22.89
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	21.25
Assuming Gamma Distribution			
95% Approximate Gamma UCL	3.865	95% Adjusted Gamma UCL	4.164
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.772	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.326	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	-0.641	Mean of logged Data	0.661
Maximum of Logged Data	2.298	SD of logged Data	0.673
Assuming Lognormal Distribution			
95% H-UCL	4.064	90% Chebyshev (MVUE) UCL	3.862
95% Chebyshev (MVUE) UCL	4.538	97.5% Chebyshev (MVUE) UCL	5.476
99% Chebyshev (MVUE) UCL	7.318		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	3.739	95% BCA Bootstrap UCL	4.65
95% Standard Bootstrap UCL	3.705	95% Bootstrap-t UCL	9.221
95% Hall's Bootstrap UCL	10.51	95% Percentile Bootstrap UCL	3.979
90% Chebyshev(Mean, Sd) UCL	4.767	95% Chebyshev(Mean, Sd) UCL	5.798

97.5% Chebyshev(Mean, Sd) UCL	7.23	99% Chebyshev(Mean, Sd) UCL	10.04
Suggested UCL to Use			
95% Student's-t UCL	3.866		
The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.			
Please verify the data were collected from random locations.			
If the data were collected using judgmental or other non-random methods,			
then contact a statistician to correctly calculate UCLs.			
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.			
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.			
Radium (mw-ap-02)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11
		Number of Missing Observations	0
Minimum	0.993	Mean	2.774
Maximum	10.4	Median	2.19
SD	2.596	Std. Error of Mean	0.783
Coefficient of Variation	0.936	Skewness	3.009
Normal GOF Test			
Shapiro Wilk Test Statistic	0.564	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.397	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data Not Normal at 1% Significance Level	
Data Not Normal at 1% Significance Level			

Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	4.193	95% Adjusted-CLT UCL (Chen-1995)	4.82
		95% Modified-t UCL (Johnson-1978)	4.311
Gamma GOF Test			
A-D Test Statistic	1.113	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.736	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.307	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.258	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	2.465	k star (bias corrected MLE)	1.854
Theta hat (MLE)	1.125	Theta star (bias corrected MLE)	1.497
nu hat (MLE)	54.24	nu star (bias corrected)	40.78
MLE Mean (bias corrected)	2.774	MLE Sd (bias corrected)	2.037
		Approximate Chi Square Value (0.05)	27.14
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	25.34
Assuming Gamma Distribution			
95% Approximate Gamma UCL	4.167	95% Adjusted Gamma UCL	4.463
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.848	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.252	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data Not Lognormal at 10% Significance Level	
Data Not Lognormal at 10% Significance Level			
Lognormal Statistics			

Minimum of Logged Data	-0.00702	Mean of logged Data	0.804
Maximum of Logged Data	2.342	SD of logged Data	0.604
Assuming Lognormal Distribution			
95% H-UCL	4.178	90% Chebyshev (MVUE) UCL	4.112
95% Chebyshev (MVUE) UCL	4.783	97.5% Chebyshev (MVUE) UCL	5.713
99% Chebyshev (MVUE) UCL	7.541		
Nonparametric Distribution Free UCL Statistics			
Data do not follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	4.061	95% BCA Bootstrap UCL	4.97
95% Standard Bootstrap UCL	4.018	95% Bootstrap-t UCL	7.24
95% Hall's Bootstrap UCL	9.684	95% Percentile Bootstrap UCL	4.234
90% Chebyshev(Mean, Sd) UCL	5.122	95% Chebyshev(Mean, Sd) UCL	6.186
97.5% Chebyshev(Mean, Sd) UCL	7.663	99% Chebyshev(Mean, Sd) UCL	10.56
Suggested UCL to Use			
95% Student's-t UCL	4.193		
<p>Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.</p> <p>Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.</p> <p>However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.</p>			
Radium (mw-ap-03)			
General Statistics			
Total Number of Observations	11	Number of Distinct Observations	11

		Number of Missing Observations	0
Minimum	1.29	Mean	2.98
Maximum	7.56	Median	2.86
SD	1.694	Std. Error of Mean	0.511
Coefficient of Variation	0.569	Skewness	2.161
Normal GOF Test			
Shapiro Wilk Test Statistic	0.764	Shapiro Wilk GOF Test	
1% Shapiro Wilk Critical Value	0.792	Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.289	Lilliefors GOF Test	
1% Lilliefors Critical Value	0.291	Data appear Normal at 1% Significance Level	
Data appear Approximate Normal at 1% Significance Level			
Assuming Normal Distribution			
95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	3.906	95% Adjusted-CLT UCL (Chen-1995)	4.176
		95% Modified-t UCL (Johnson-1978)	3.962
Gamma GOF Test			
A-D Test Statistic	0.504	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.732	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.215	Kolmogorov-Smirnov Gamma GOF Test	
5% K-S Critical Value	0.256	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			
Gamma Statistics			
k hat (MLE)	4.552	k star (bias corrected MLE)	3.371
Theta hat (MLE)	0.655	Theta star (bias corrected MLE)	0.884
nu hat (MLE)	100.2	nu star (bias corrected)	74.17
MLE Mean (bias corrected)	2.98	MLE Sd (bias corrected)	1.623

		Approximate Chi Square Value (0.05)	55.34
Adjusted Level of Significance	0.0278	Adjusted Chi Square Value	52.69
Assuming Gamma Distribution			
95% Approximate Gamma UCL	3.994	95% Adjusted Gamma UCL	4.195
Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.931	Shapiro Wilk Lognormal GOF Test	
10% Shapiro Wilk Critical Value	0.876	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.193	Lilliefors Lognormal GOF Test	
10% Lilliefors Critical Value	0.231	Data appear Lognormal at 10% Significance Level	
Data appear Lognormal at 10% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	0.255	Mean of logged Data	0.978
Maximum of Logged Data	2.023	SD of logged Data	0.481
Assuming Lognormal Distribution			
95% H-UCL	4.14	90% Chebyshev (MVUE) UCL	4.26
95% Chebyshev (MVUE) UCL	4.853	97.5% Chebyshev (MVUE) UCL	5.676
99% Chebyshev (MVUE) UCL	7.292		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution			
Nonparametric Distribution Free UCLs			
95% CLT UCL	3.82	95% BCA Bootstrap UCL	4.222
95% Standard Bootstrap UCL	3.796	95% Bootstrap-t UCL	4.556
95% Hall's Bootstrap UCL	7.698	95% Percentile Bootstrap UCL	3.877
90% Chebyshev(Mean, Sd) UCL	4.513	95% Chebyshev(Mean, Sd) UCL	5.207
97.5% Chebyshev(Mean, Sd) UCL	6.171	99% Chebyshev(Mean, Sd) UCL	8.063

Suggested UCL to Use		
95% Student's-t UCL	3.906	
When a data set follows an approximate distribution passing only one of the GOF tests, it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.		

Appendix B

Wateree Ash Pond Confidence Limit Graphs

