Prepared for
Illinois Power Resources Generating, LLC

Date
January 31, 2025

Project No.
1940103649-005

2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GYPSUM MANAGEMENT FACILITY POND

DUCK CREEK POWER PLANT

CANTON, ILLINOIS

CCR UNIT 203

RAMBOLL Bright ideas. Sustainable change.

2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT DUCK CREEK POWER PLANT GYPSUM MANAGEMENT FACILITY POND

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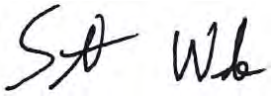

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APPENDICES

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternative Source Demonstration
CCR	coal combustion residuals
D13	Quarter 3, 2023 Detection Monitoring sampling event
D13R	Quarter 4, 2023 Detection Monitoring sampling event
D14	Quarter 1, 2024 Detection Monitoring sampling event
D14R	Quarter 2, 2024 Detection Monitoring sampling event
D15	Quarter 3, 2024 Detection Monitoring sampling event
D15R	Quarter 4, 2024 Detection Monitoring sampling event
DCPP	Duck Creek Power Plant
GMF Pond	Gypsum Management Facility Pond
GWPS	groundwater protection standard
NA	not applicable
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SSI	statistically significant increase
TBD	to be determined

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section § 257.90(e) for the Gypsum Management Facility Pond (GMF Pond) located at the Duck Creek Power Plant (DCPP) near Canton, Illinois.

Groundwater is being monitored at the GMF Pond in accordance with the Detection Monitoring Program requirements specified in 40 C.F.R. § 257.94.

No changes were made to the monitoring system in 2024 (no wells were installed or decommissioned).

The following Statistically Significant Increases (SSIs) of 40 C.F.R. § 257 Appendix III parameter concentrations greater than background concentrations were reported in 2024:

- Calcium at wells G54S, G54L, G57S, and G60S, and G64L
- Chloride at well G54L
- Sulfate at well G54L and G60L
- Total Dissolved Solids (TDS) at wells G54S, G54L, G57S, G60S, G60L, and G64L
- pH at well G60L

Alternative Source Demonstrations (ASDs) were completed for the SSIs referenced above and the GMF Pond remains in the Detection Monitoring Program.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of Illinois Power Resources Generating, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the GMF Pond located at the DCPP near Canton, Illinois.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a coal combustion residuals (CCR) unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit (**Section 2**), summarizes key actions completed (**Section 3**), describes any problems encountered and actions to resolve the problems (**Section 4**), and projects key activities for the upcoming year (**Section 5**). At a minimum, the annual report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit (**Figure 1**).
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken (**Section 3**, paragraph 1)
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the Detection Monitoring or Assessment Monitoring Programs (**Section 3, Table A**).
4. A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from Detection Monitoring to Assessment Monitoring in addition to identifying the constituent(s) detected at a statistically significant increase relative to background levels) (**Section 2**).
5. Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.
6. A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit (see **Executive Summary**). At a minimum, the summary must specify all of the following:
    i. At the start of the current annual reporting period, whether the CCR unit was operating under the Detection Monitoring Program in §257.94 or the Assessment Monitoring Program in §257.95.
    ii. At the end of the current annual reporting period, whether the CCR unit was operating under the Detection Monitoring Program in §257.94 or the Assessment Monitoring Program in §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 of §257 pursuant to §257.94(e):
        A. Identify those constituents listed in Appendix III of §257 and the names of the monitoring wells associated with such an increase.

B. Provide the date when the Assessment Monitoring Program was initiated for the CCR unit.

iv. If it was determined that there was a statistically significant level above the groundwater protection standard [GWPS] for one or more constituents listed in Appendix IV of §257 pursuant to §257.95(g) include all of the following:

A. Identify those constituents listed in Appendix IV of §257 and the names of the monitoring wells associated with such an increase.

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

C. Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.

D. Provide the date when the assessment of corrective measures was completed for the CCR unit.

v. Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection.

vi. Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

This report provides the required information for the GMF Pond for calendar year 2024.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2024 and the GMF Pond remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2024

A summary of the samples collected from background and compliance monitoring wells in 2024 under the Detection Monitoring Program is included in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. No changes were made to the monitoring system in 2024 (Ramboll, 2022a).

One groundwater sample was collected from each background and compliance well during each monitoring event. All samples were collected and analyzed in accordance with the Multi-Site Sampling and Analysis Plan (SAP) (Ramboll, 2023).

Potentiometric surfaces for the quarterly sampling events are included in **Figures 2 through 5**. All monitoring data and analytical results obtained under 40 C.F.R. §§ 257.90 through 257.98 in 2024 are presented in **Tables 1 and 2**. All associated laboratory reports and field data sheets are included in **Appendix A**.

Analytical data were evaluated in accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2022b), the Multi-Site Quality Assurance Project Plan (Ramboll, 2022c), and the Multi-Site Data Management Plan (Ramboll, 2022d) to determine any SSIs of Appendix III parameters relative to background concentrations. SSIs are summarized in **Table A** and highlighted in **Table 2.** Statistical background values are provided in **Table 3**. A flow chart showing the statistical methodology for determination of background values is included as **Appendix B**.

Potential alternative sources were evaluated as outlined in the 40 C.F.R. § 257.94(e)(2). ASDs were completed in 2024 for the SSIs summarized in **Table A**. The dates the ASDs were completed are also provided in **Table A**. The ASDs were certified by a qualified professional engineer and are included in **Appendix C**. The GMF Pond remains in the Detection Monitoring Program.

Table A. 2024 Detection Monitoring Program Summary

Event ID	Sampling Dates [1, 2, 3]	Analytical Data Receipt Date [4]	SSI(s) Determination Date	SSI(s)	ASD Completion Date
D13 [5]	July 18 - July 27, 2023	October 19, 2023	January 17, 2024	Calcium at wells G54L, G57S, and G60S; Chloride at well G54L; Sulfate at wells G54L and G60L; TDS at wells G54S, G54L, G57S, G60S, G60L, and G64L; pH at well G60L	April 16, 2024
D13R [5]	October 19 - 20, 23, 26, 27, and 31, 2023	January 2, 2024	NA	NA	NA
D14	January 19, 25 – 26, 29-30, and February 1, 2024	March 6, 2024	June 4, 2024	Calcium at wells G54L, G54S, G57S, G60S, and G64L; Chloride at well G54L; Sulfate at wells G54L and G60L; TDS at wells G54S, G54L, G57S, G60S, G60L, and G64L; pH at well G60L	September 2, 2024
D14R	February 6, 2024 and April 17, 22 – 24, 2024	February 28, 2024 and June 11, 2024	NA	NA	NA
D15	July 23, 29, 31, and August 1, 2024	August 29, 2024	November 27, 2024	Calcium at wells G54L, G54S, G57S, G60S and G64L; Chloride at well G54L; Sulfate at wells G54L and G60L; TDS at wells, G54L, G57S, G60S, G60L, and G64L; pH at well G60L	TBD
D15R	October 15 – 17, and 22 – 24, 2024	December 6, 2024	NA	NA	NA

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

SSI: Statistically Significant Increase

TBD: to be determined in 2025

[1] All samples were analyzed for Appendix III parameters listed in 40 C.F.R. § 257.94(e)

[2] The following background wells were sampled for each event: G02S, G50S, and G51S

[3] The following compliance wells were sampled for each event: G54S, G54L, G57S, G60S, G60L, G64S, G64L

[4] All data collected for the 40 C.F.R. § 257 monitoring program and Appendix III parameters that were analyzed under the Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845 program were included for background calculations in accordance with 40 C.F.R. § 257.94(e)(1).

[5] Laboratory reports for this event were included in the 2023 Annual Groundwater Monitoring and Corrective Action Report.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the groundwater monitoring program during 2024. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2025

The following key activities are planned for 2025:

- Continuation of the Detection Monitoring Program with semiannual sampling scheduled for the first and third quarters of 2025 (and sampling for 35 I.A.C. § 845 scheduled for the second and fourth quarters).
- Complete evaluation of analytical data from the compliance wells using background data to determine whether an SSI of Appendix III parameters detected at concentrations greater than background concentrations has occurred.
- If an SSI is identified, potential alternative sources (*i.e.,* a source other than the CCR unit caused the SSI or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
  - If an alternative source is identified to be the cause of the SSI, a written demonstration will be completed within 90 days of SSI determination and included in the 2025 Annual Groundwater Monitoring and Corrective Action Report.
  - If an alternative source(s) is not identified to be the cause of the SSI, the applicable requirements of 40 C.F.R. §§ 257.94 through 257.98 as may apply in 2025 (*e.g.,* assessment monitoring) will be met, including associated recordkeeping/notifications required by 40 C.F.R. §§ 257.105 through 257.108.

6. REFERENCES

Code of Federal Regulations, Title 40, Chapter I, Subchapter I, Part 257, Subpart D, Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, effective April 17, 2015. Accessed from URL https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D#page-top

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022a. 40 C.F.R. § 257 Groundwater Monitoring Plan, the Gypsum Management Facility Pond, Duck Creek Power Plant, Canton, Illinois. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022b. Multi-Site Statistical Analysis Plan, 40 C.F.R. § 257. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022c. Multi-Site Quality Assurance Project Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022d. Multi-Site Data Management Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023. Multi-Site Sampling and Analysis Plan, Revision 1. October 10, 2023.

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G02S	Background	UA	01/24/2024	[7.40]	[614.23]
G02S	Background	UA	02/12/2024	7.33	614.29
G02S	Background	UA	03/12/2024	7.71	613.91
G02S	Background	UA	04/12/2024	7.28	614.35
G02S	Background	UA	05/22/2024	7.39	614.23
G02S	Background	UA	06/22/2024	9.65	611.97
G02S	Background	UA	07/22/2024	7.86	613.77
G02S	Background	UA	08/14/2024	9.19	612.59
G02S	Background	UA	09/14/2024	11.87	609.91
G02S	Background	UA	10/14/2024	14.06	607.73
G02S	Background	UA	11/07/2024	13.68	608.09
G02S	Background	UA	12/03/2024	10.81	610.98
G50S	Background	UA	01/17/2024	12.02	611.63
G50S	Background	UA	02/12/2024	11.62	612.02
G50S	Background	UA	03/12/2024	12.06	611.58
G50S	Background	UA	04/12/2024	11.31	612.34
G50S	Background	UA	05/22/2024	11.35	612.29
G50S	Background	UA	06/22/2024	14.45	609.19
G50S	Background	UA	07/22/2024	12.54	611.11
G50S	Background	UA	08/14/2024	14.19	609.39
G50S	Background	UA	09/14/2024	16.85	606.74
G50S	Background	UA	10/14/2024	18.89	604.71
G50S	Background	UA	11/07/2024	17.98	605.61
G50S	Background	UA	12/03/2024	16.35	607.25
G51S	Background	UA	01/17/2024	9.86	609.61
G51S	Background	UA	02/12/2024	9.32	610.14
G51S	Background	UA	03/12/2024	9.76	609.70
G51S	Background	UA	04/12/2024	9.06	610.41
G51S	Background	UA	05/22/2024	10.16	609.30
G51S	Background	UA	06/22/2024	15.55	603.91
G51S	Background	UA	07/22/2024	11.42	608.05
G51S	Background	UA	08/14/2024	14.65	604.69
G51S	Background	UA	09/14/2024	16.95	602.39
G51S	Background	UA	10/14/2024	18.83	600.52
G51S	Background	UA	11/07/2024	18.39	600.95
G51S	Background	UA	12/03/2024	16.03	603.32
G54L	Compliance	PMP	01/17/2024	22.85	599.97
G54L	Compliance	PMP	02/12/2024	22.37	600.44
G54L	Compliance	PMP	03/12/2024	22.24	600.57
G54L	Compliance	PMP	04/12/2024	22.38	600.44
G54L	Compliance	PMP	05/22/2024	21.60	601.21
G54L	Compliance	PMP	06/22/2024	21.04	601.77
G54L	Compliance	PMP	07/22/2024	20.93	601.89
G54L	Compliance	PMP	08/14/2024	23.65	599.20
G54L	Compliance	PMP	09/14/2024	25.00	597.86
G54L	Compliance	PMP	10/14/2024	25.84	597.02

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Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G54L	Compliance	PMP	11/07/2024	25.42	597.44
G54L	Compliance	PMP	12/03/2024	26.37	596.49
G54S	Compliance	UA	01/17/2024	24.11	598.97
G54S	Compliance	UA	02/12/2024	23.51	599.56
G54S	Compliance	UA	03/12/2024	23.41	599.66
G54S	Compliance	UA	04/12/2024	23.56	599.52
G54S	Compliance	UA	05/22/2024	22.71	600.36
G54S	Compliance	UA	06/22/2024	22.23	600.84
G54S	Compliance	UA	07/22/2024	22.29	600.79
G54S	Compliance	UA	08/14/2024	22.66	600.28
G54S	Compliance	UA	09/14/2024	23.90	599.04
G54S	Compliance	UA	10/14/2024	24.72	598.23
G54S	Compliance	UA	11/07/2024	26.26	596.69
G54S	Compliance	UA	12/03/2024	27.55	595.40
G57S	Compliance	UA	01/17/2024	23.45	599.08
G57S	Compliance	UA	02/12/2024	20.45	602.07
G57S	Compliance	UA	03/12/2024	20.80	601.72
G57S	Compliance	UA	04/12/2024	18.36	604.17
G57S	Compliance	UA	05/22/2024	17.48	605.04
G57S	Compliance	UA	06/22/2024	19.76	602.76
G57S	Compliance	UA	07/22/2024	18.46	604.07
G57S	Compliance	UA	08/14/2024	19.61	602.95
G57S	Compliance	UA	09/14/2024	21.55	601.01
G57S	Compliance	UA	10/14/2024	24.02	598.55
G57S	Compliance	UA	11/07/2024	25.37	597.19
G57S	Compliance	UA	12/03/2024	25.77	596.80
G60L	Compliance	PMP	01/17/2024	14.99	600.12
G60L	Compliance	PMP	02/12/2024	10.59	604.51
G60L	Compliance	PMP	03/12/2024	12.60	602.50
G60L	Compliance	PMP	04/12/2024	8.12	606.99
G60L	Compliance	PMP	05/22/2024	7.84	607.26
G60L	Compliance	PMP	06/22/2024	10.91	604.19
G60L	Compliance	PMP	07/22/2024	9.29	605.82
G60L	Compliance	PMP	08/14/2024	11.11	604.14
G60L	Compliance	PMP	09/14/2024	14.65	600.60
G60L	Compliance	PMP	10/14/2024	17.72	597.54
G60L	Compliance	PMP	11/07/2024	20.58	594.67
G60L	Compliance	PMP	12/03/2024	21.15	594.11
G60S	Compliance	UA	01/17/2024	24.56	590.31
G60S	Compliance	UA	02/12/2024	23.01	591.85
G60S	Compliance	UA	03/12/2024	23.88	590.98
G60S	Compliance	UA	04/12/2024	21.83	593.04
G60S	Compliance	UA	05/22/2024	21.87	592.99
G60S	Compliance	UA	06/22/2024	22.83	592.03
G60S	Compliance	UA	07/22/2024	21.21	593.66
G60S	Compliance	UA	08/14/2024	22.20	592.66

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GMF POND
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G60S	Compliance	UA	09/14/2024	23.55	591.31
G60S	Compliance	UA	10/14/2024	25.54	589.33
G60S	Compliance	UA	11/07/2024	26.35	588.51
G60S	Compliance	UA	12/03/2024	26.48	588.39
G64L	Compliance	PMP	01/17/2024	23.83	598.50
G64L	Compliance	PMP	02/12/2024	21.51	600.81
G64L	Compliance	PMP	03/12/2024	21.77	600.55
G64L	Compliance	PMP	04/12/2024	19.74	602.59
G64L	Compliance	PMP	05/22/2024	18.76	603.56
G64L	Compliance	PMP	06/22/2024	20.72	601.60
G64L	Compliance	PMP	07/22/2024	20.81	601.52
G64L	Compliance	PMP	08/14/2024	21.50	601.01
G64L	Compliance	PMP	09/14/2024	22.59	599.92
G64L	Compliance	PMP	10/14/2024	23.86	598.66
G64L	Compliance	PMP	11/07/2024	24.83	597.68
G64L	Compliance	PMP	12/03/2024	24.92	597.60
G64S	Compliance	UA	01/17/2024	24.73	598.20
G64S	Compliance	UA	02/12/2024	22.90	600.02
G64S	Compliance	UA	03/12/2024	23.21	599.71
G64S	Compliance	UA	04/12/2024	21.76	601.17
G64S	Compliance	UA	05/22/2024	20.93	601.99
G64S	Compliance	UA	06/22/2024	22.28	600.64
G64S	Compliance	UA	07/22/2024	22.21	600.72
G64S	Compliance	UA	08/14/2024	22.54	600.49
G64S	Compliance	UA	09/14/2024	23.47	599.56
G64S	Compliance	UA	10/14/2024	25.06	597.98
G64S	Compliance	UA	11/07/2024	25.67	597.36
G64S	Compliance	UA	12/04/2024	[25.99]	[597.05]
X301	Water Level	S	01/17/2024	DM[1]	
X301	Water Level	S	02/12/2024	DM[1]	
X301	Water Level	S	03/12/2024	DM[1]	
X301	Water Level	S	04/12/2024	DM[1]	
X301	Water Level	S	05/22/2024	DM[1]	
X301	Water Level	S	06/22/2024	DM[1]	
X301	Water Level	S	07/22/2024	49.30	NA
X301	Water Level	S	08/14/2024	DM[1]	
X301	Water Level	S	09/14/2024	DM[1]	
X301	Water Level	S	10/14/2024	48.00	NA

TABLE 1
GROUNDWATER ELEVATION DATA
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Notes:
BMP = below measuring point
Bracketing [ ] indicates that the measurement was obtained outside of the episodic depth to groundwater measurements time frame.
Depth to Groundwater/Groundwater Elevation Code (if applicable):

- DM[1] = Depth to water was not measured.
- DM[2] = Depth to water was not measured because water was above or below the staff gage markings.
- DM[3] = Depth to water was not measured because the location was inaccessible.
- DM[4] = Depth to water was not measured because water level was below the top of the pump.
- DM[5] = Depth to water was not measured because water level was above the top of casing (artesian well).
- DM[6] = Depth to water was not measured because of damage to the well.
- DM[7] = Depth to water was not measured due to required pressure transducer maintenance.
- DM[8] = Lab provided groundwater elevation data and not depth to water.

NA = not available/not applicable
NAVD88 = North American Vertical Datum of 1988
Monitored Unit Abbreviations:

- PMP = potential migration pathway
- S = source water
- UA = uppermost aquifer

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TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G02S	UA	Background	01/29/2024	D14	Boron, total	mg/L	0.0370 J+	--	--	--
G02S	UA	Background	04/22/2024	D14R	Boron, total	mg/L	0.0990	--	--	--
G02S	UA	Background	08/01/2024	D15	Boron, total	mg/L	0.0560	--	--	--
G02S	UA	Background	10/23/2024	D15R	Boron, total	mg/L	0.0380	--	--	--
G02S	UA	Background	01/29/2024	D14	Calcium, total	mg/L	97.0	--	--	--
G02S	UA	Background	04/22/2024	D14R	Calcium, total	mg/L	97.0	--	--	--
G02S	UA	Background	08/01/2024	D15	Calcium, total	mg/L	99.0	--	--	--
G02S	UA	Background	10/23/2024	D15R	Calcium, total	mg/L	96.0	--	--	--
G02S	UA	Background	01/29/2024	D14	Chloride, total	mg/L	4.8 U	--	--	--
G02S	UA	Background	04/22/2024	D14R	Chloride, total	mg/L	2.40 J+	--	--	--
G02S	UA	Background	08/01/2024	D15	Chloride, total	mg/L	1.30	--	--	--
G02S	UA	Background	10/23/2024	D15R	Chloride, total	mg/L	1.30	--	--	--
G02S	UA	Background	01/29/2024	D14	Fluoride, total	mg/L	0.257 J-	--	--	--
G02S	UA	Background	04/22/2024	D14R	Fluoride, total	mg/L	0.295	--	--	--
G02S	UA	Background	08/01/2024	D15	Fluoride, total	mg/L	0.263	--	--	--
G02S	UA	Background	10/23/2024	D15R	Fluoride, total	mg/L	0.305	--	--	--
G02S	UA	Background	01/29/2024	D14	pH (field)	SU	6.5	--	--	--
G02S	UA	Background	04/22/2024	D14R	pH (field)	SU	6.7	--	--	--
G02S	UA	Background	08/01/2024	D15	pH (field)	SU	6.6	--	--	--
G02S	UA	Background	10/23/2024	D15R	pH (field)	SU	6.7	--	--	--
G02S	UA	Background	01/29/2024	D14	Sulfate, total	mg/L	0.18 U	--	--	--
G02S	UA	Background	04/22/2024	D14R	Sulfate, total	mg/L	0.18 U	--	--	--
G02S	UA	Background	08/01/2024	D15	Sulfate, total	mg/L	0.33 J	--	--	--
G02S	UA	Background	10/23/2024	D15R	Sulfate, total	mg/L	0.43 J	--	--	--
G02S	UA	Background	01/29/2024	D14	Total Dissolved Solids	mg/L	340 J+	--	--	--
G02S	UA	Background	04/22/2024	D14R	Total Dissolved Solids	mg/L	400	--	--	--
G02S	UA	Background	08/01/2024	D15	Total Dissolved Solids	mg/L	430	--	--	--
G02S	UA	Background	10/23/2024	D15R	Total Dissolved Solids	mg/L	390	--	--	--
G50S	UA	Background	01/19/2024	D14	Boron, total	mg/L	0.0180	--	--	--
G50S	UA	Background	04/23/2024	D14R	Boron, total	mg/L	0.0150	--	--	--
G50S	UA	Background	07/29/2024	D15	Boron, total	mg/L	0.0140	--	--	--
G50S	UA	Background	10/15/2024	D15R	Boron, total	mg/L	0.0160	--	--	--
G50S	UA	Background	01/19/2024	D14	Calcium, total	mg/L	89.0	--	--	--
G50S	UA	Background	04/23/2024	D14R	Calcium, total	mg/L	89.0	--	--	--
G50S	UA	Background	07/29/2024	D15	Calcium, total	mg/L	84.0	--	--	--
G50S	UA	Background	10/15/2024	D15R	Calcium, total	mg/L	91.0	--	--	--
G50S	UA	Background	01/19/2024	D14	Chloride, total	mg/L	9.90	--	--	--
G50S	UA	Background	04/23/2024	D14R	Chloride, total	mg/L	12.0	--	--	--
G50S	UA	Background	07/29/2024	D15	Chloride, total	mg/L	13.0	--	--	--
G50S	UA	Background	10/15/2024	D15R	Chloride, total	mg/L	10.0	--	--	--
G50S	UA	Background	01/19/2024	D14	Fluoride, total	mg/L	0.275	--	--	--
G50S	UA	Background	04/23/2024	D14R	Fluoride, total	mg/L	0.21 J	--	--	--
G50S	UA	Background	07/29/2024	D15	Fluoride, total	mg/L	0.261	--	--	--
G50S	UA	Background	10/15/2024	D15R	Fluoride, total	mg/L	0.212 J	--	--	--
G50S	UA	Background	01/19/2024	D14	pH (field)	SU	6.8	--	--	--
G50S	UA	Background	04/23/2024	D14R	pH (field)	SU	7.1	--	--	--

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G50S	UA	Background	07/29/2024	D15	pH (field)	SU	7.1	--	--	--
G50S	UA	Background	10/15/2024	D15R	pH (field)	SU	10.5	--	--	--
G50S	UA	Background	01/19/2024	D14	Sulfate, total	mg/L	39.0	--	--	--
G50S	UA	Background	04/23/2024	D14R	Sulfate, total	mg/L	44.0	--	--	--
G50S	UA	Background	07/29/2024	D15	Sulfate, total	mg/L	45.0	--	--	--
G50S	UA	Background	10/15/2024	D15R	Sulfate, total	mg/L	41.0	--	--	--
G50S	UA	Background	01/19/2024	D14	Total Dissolved Solids	mg/L	420	--	--	--
G50S	UA	Background	04/23/2024	D14R	Total Dissolved Solids	mg/L	340	--	--	--
G50S	UA	Background	07/29/2024	D15	Total Dissolved Solids	mg/L	360	--	--	--
G50S	UA	Background	10/15/2024	D15R	Total Dissolved Solids	mg/L	370 J	--	--	--
G51S	UA	Background	01/19/2024	D14	Boron, total	mg/L	0.0140	--	--	--
G51S	UA	Background	04/17/2024	D14R	Boron, total	mg/L	0.0130 J+	--	--	--
G51S	UA	Background	07/29/2024	D15	Boron, total	mg/L	0.0092 J	--	--	--
G51S	UA	Background	10/24/2024	D15R	Boron, total	mg/L	0.0110 J+	--	--	--
G51S	UA	Background	01/19/2024	D14	Calcium, total	mg/L	98.0	--	--	--
G51S	UA	Background	04/17/2024	D14R	Calcium, total	mg/L	100	--	--	--
G51S	UA	Background	07/29/2024	D15	Calcium, total	mg/L	96.0	--	--	--
G51S	UA	Background	10/24/2024	D15R	Calcium, total	mg/L	96.0	--	--	--
G51S	UA	Background	01/19/2024	D14	Chloride, total	mg/L	13.0	--	--	--
G51S	UA	Background	04/17/2024	D14R	Chloride, total	mg/L	13.0	--	--	--
G51S	UA	Background	07/29/2024	D15	Chloride, total	mg/L	16.0	--	--	--
G51S	UA	Background	10/24/2024	D15R	Chloride, total	mg/L	13.0	--	--	--
G51S	UA	Background	01/19/2024	D14	Fluoride, total	mg/L	0.223	--	--	--
G51S	UA	Background	04/17/2024	D14R	Fluoride, total	mg/L	0.236 J	--	--	--
G51S	UA	Background	07/29/2024	D15	Fluoride, total	mg/L	0.223 J	--	--	--
G51S	UA	Background	10/24/2024	D15R	Fluoride, total	mg/L	0.177 J	--	--	--
G51S	UA	Background	01/19/2024	D14	pH (field)	SU	5.8	--	--	--
G51S	UA	Background	04/17/2024	D14R	pH (field)	SU	6.9	--	--	--
G51S	UA	Background	07/29/2024	D15	pH (field)	SU	7.0	--	--	--
G51S	UA	Background	10/24/2024	D15R	pH (field)	SU	8.0	--	--	--
G51S	UA	Background	01/19/2024	D14	Sulfate, total	mg/L	58.0	--	--	--
G51S	UA	Background	04/17/2024	D14R	Sulfate, total	mg/L	59.0	--	--	--
G51S	UA	Background	07/29/2024	D15	Sulfate, total	mg/L	60.0	--	--	--
G51S	UA	Background	10/24/2024	D15R	Sulfate, total	mg/L	63.0	--	--	--
G51S	UA	Background	01/19/2024	D14	Total Dissolved Solids	mg/L	400	--	--	--
G51S	UA	Background	04/17/2024	D14R	Total Dissolved Solids	mg/L	440	--	--	--
G51S	UA	Background	07/29/2024	D15	Total Dissolved Solids	mg/L	350 J	--	--	--
G51S	UA	Background	10/24/2024	D15R	Total Dissolved Solids	mg/L	360 J	--	--	--
G54L	PMP	Compliance	01/30/2024	D14	Boron, total	mg/L	0.0180 J+	0.0180	0.0590	No Exceedance
G54L	PMP	Compliance	04/23/2024	D14R	Boron, total	mg/L	0.0096 J	0.005	0.0590	No Exceedance
G54L	PMP	Compliance	07/29/2024	D15	Boron, total	mg/L	0.0092 J	0.005	0.0590	No Exceedance
G54L	PMP	Compliance	10/24/2024	D15R	Boron, total	mg/L	0.0071 U	0.01	0.0590	No Exceedance
G54L	PMP	Compliance	01/30/2024	D14	Calcium, total	mg/L	200	200	112	Reported
G54L	PMP	Compliance	04/23/2024	D14R	Calcium, total	mg/L	200	200	112	Confirmed
G54L	PMP	Compliance	07/29/2024	D15	Calcium, total	mg/L	200	200	112	Reported
G54L	PMP	Compliance	10/24/2024	D15R	Calcium, total	mg/L	210	210	112	Confirmed

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G54L	PMP	Compliance	01/30/2024	D14	Chloride, total	mg/L	45.0	45.0	22.5	Reported
G54L	PMP	Compliance	04/23/2024	D14R	Chloride, total	mg/L	47.0	47.0	22.5	Confirmed
G54L	PMP	Compliance	07/29/2024	D15	Chloride, total	mg/L	66.0	66.0	22.5	Reported
G54L	PMP	Compliance	10/24/2024	D15R	Chloride, total	mg/L	60.0	60.0	22.5	Confirmed
G54L	PMP	Compliance	01/30/2024	D14	Fluoride, total	mg/L	0.192	0.25	0.564	No Exceedance
G54L	PMP	Compliance	04/23/2024	D14R	Fluoride, total	mg/L	0.186 J	0.25	0.564	No Exceedance
G54L	PMP	Compliance	07/29/2024	D15	Fluoride, total	mg/L	0.203 J	0.25	0.564	No Exceedance
G54L	PMP	Compliance	10/24/2024	D15R	Fluoride, total	mg/L	0.2 U	0.25	0.564	No Exceedance
G54L	PMP	Compliance	01/30/2024	D14	pH (field)	SU	6.8	6.8	6.5/7.5	No Exceedance
G54L	PMP	Compliance	04/23/2024	D14R	pH (field)	SU	6.1	6.1	6.5/7.5	Exceedance Not Confirmed
G54L	PMP	Compliance	07/29/2024	D15	pH (field)	SU	6.6	6.6	6.5/7.5	No Exceedance
G54L	PMP	Compliance	10/24/2024	D15R	pH (field)	SU	6.7	6.7	6.5/7.5	No Exceedance
G54L	PMP	Compliance	01/30/2024	D14	Sulfate, total	mg/L	120	120	97.0	Reported
G54L	PMP	Compliance	04/23/2024	D14R	Sulfate, total	mg/L	120	120	97.0	Confirmed
G54L	PMP	Compliance	07/29/2024	D15	Sulfate, total	mg/L	120	120	97.0	Reported
G54L	PMP	Compliance	10/24/2024	D15R	Sulfate, total	mg/L	120	120	97.0	Confirmed
G54L	PMP	Compliance	01/30/2024	D14	Total Dissolved Solids	mg/L	880	880	499	Reported
G54L	PMP	Compliance	04/30/2024	D14R	Total Dissolved Solids	mg/L	1,000	1,000	499	Confirmed
G54L	PMP	Compliance	07/29/2024	D15	Total Dissolved Solids	mg/L	940	940	499	Reported
G54L	PMP	Compliance	10/24/2024	D15R	Total Dissolved Solids	mg/L	920 J	920	499	Confirmed
G54S	UA	Compliance	01/19/2024	D14	Boron, total	mg/L	0.0290	0.0290	0.0590	No Exceedance
G54S	UA	Compliance	04/24/2024	D14R	Boron, total	mg/L	0.0370	0.0370	0.0590	No Exceedance
G54S	UA	Compliance	07/29/2024	D15	Boron, total	mg/L	0.0140	0.0140	0.0590	No Exceedance
G54S	UA	Compliance	10/16/2024	D15R	Boron, total	mg/L	0.0310	0.0310	0.0590	No Exceedance
G54S	UA	Compliance	01/19/2024	D14	Calcium, total	mg/L	120	120	112	Reported
G54S	UA	Compliance	04/24/2024	D14R	Calcium, total	mg/L	130	130	112	Confirmed
G54S	UA	Compliance	07/29/2024	D15	Calcium, total	mg/L	180	180	112	Reported
G54S	UA	Compliance	10/16/2024	D15R	Calcium, total	mg/L	120	120	112	Confirmed
G54S	UA	Compliance	01/19/2024	D14	Chloride, total	mg/L	4.8 U	2.5	22.5	No Exceedance
G54S	UA	Compliance	04/24/2024	D14R	Chloride, total	mg/L	5.80	5.80	22.5	No Exceedance
G54S	UA	Compliance	07/29/2024	D15	Chloride, total	mg/L	7.50	7.50	22.5	No Exceedance
G54S	UA	Compliance	10/16/2024	D15R	Chloride, total	mg/L	6.10	6.10	22.5	No Exceedance
G54S	UA	Compliance	01/19/2024	D14	Fluoride, total	mg/L	0.21	0.25	0.564	No Exceedance
G54S	UA	Compliance	04/24/2024	D14R	Fluoride, total	mg/L	0.205 J	0.25	0.564	No Exceedance
G54S	UA	Compliance	07/29/2024	D15	Fluoride, total	mg/L	0.197 J	0.25	0.564	No Exceedance
G54S	UA	Compliance	10/16/2024	D15R	Fluoride, total	mg/L	0.2 U	0.25	0.564	No Exceedance
G54S	UA	Compliance	01/19/2024	D14	pH (field)	SU	6.2	7.0	6.5/7.5	No Exceedance
G54S	UA	Compliance	02/06/2024	D14R	pH (field)	SU	7.0	6.2	6.5/7.5	Exceedance Not Confirmed
G54S	UA	Compliance	04/24/2024	ADD	pH (field)	SU	6.7	--	6.5/7.5	--
G54S	UA	Compliance	07/29/2024	D15	pH (field)	SU	6.8	6.8	6.5/7.5	No Exceedance
G54S	UA	Compliance	10/16/2024	D15R	pH (field)	SU	6.7	6.7	6.5/7.5	No Exceedance
G54S	UA	Compliance	01/19/2024	D14	Sulfate, total	mg/L	34.0	34.0	97.0	No Exceedance
G54S	UA	Compliance	04/24/2024	D14R	Sulfate, total	mg/L	36.0	36.0	97.0	No Exceedance
G54S	UA	Compliance	07/29/2024	D15	Sulfate, total	mg/L	32.0	32.0	97.0	No Exceedance
G54S	UA	Compliance	10/16/2024	D15R	Sulfate, total	mg/L	28.0	28.0	97.0	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G54S	UA	Compliance	01/19/2024	D14	Total Dissolved Solids	mg/L	540	540	499	Reported
G54S	UA	Compliance	04/24/2024	D14R	Total Dissolved Solids	mg/L	500	500	499	Confirmed
G54S	UA	Compliance	07/29/2024	D15	Total Dissolved Solids	mg/L	490	490	499	No Exceedance
G54S	UA	Compliance	10/16/2024	D15R	Total Dissolved Solids	mg/L	510	510	499	Exceedance Not Confirmed
G57S	UA	Compliance	01/26/2024	D14	Boron, total	mg/L	0.0071 U	0.01	0.0590	No Exceedance
G57S	UA	Compliance	04/24/2024	D14R	Boron, total	mg/L	0.0130	0.0130	0.0590	No Exceedance
G57S	UA	Compliance	07/23/2024	D15	Boron, total	mg/L	0.0071 U	0.01	0.0590	No Exceedance
G57S	UA	Compliance	10/16/2024	D15R	Boron, total	mg/L	0.0110	0.0110	0.0590	No Exceedance
G57S	UA	Compliance	01/26/2024	D14	Calcium, total	mg/L	180	180	112	Reported
G57S	UA	Compliance	04/24/2024	D14R	Calcium, total	mg/L	170	170	112	Confirmed
G57S	UA	Compliance	07/23/2024	D15	Calcium, total	mg/L	170	170	112	Reported
G57S	UA	Compliance	10/16/2024	D15R	Calcium, total	mg/L	170	170	112	Confirmed
G57S	UA	Compliance	01/26/2024	D14	Chloride, total	mg/L	16.0	16.0	22.5	No Exceedance
G57S	UA	Compliance	04/24/2024	D14R	Chloride, total	mg/L	16.0	16.0	22.5	No Exceedance
G57S	UA	Compliance	07/23/2024	D15	Chloride, total	mg/L	18.0	18.0	22.5	No Exceedance
G57S	UA	Compliance	10/16/2024	D15R	Chloride, total	mg/L	16.0	16.0	22.5	No Exceedance
G57S	UA	Compliance	01/26/2024	D14	Fluoride, total	mg/L	0.267	0.267	0.564	No Exceedance
G57S	UA	Compliance	04/24/2024	D14R	Fluoride, total	mg/L	0.249 J	0.25	0.564	No Exceedance
G57S	UA	Compliance	07/23/2024	D15	Fluoride, total	mg/L	0.25 UJ	0.25	0.564	No Exceedance
G57S	UA	Compliance	10/16/2024	D15R	Fluoride, total	mg/L	0.202 J	0.25	0.564	No Exceedance
G57S	UA	Compliance	01/26/2024	D14	pH (field)	SU	6.8	6.8	6.5/7.5	No Exceedance
G57S	UA	Compliance	04/24/2024	D14R	pH (field)	SU	6.7	6.7	6.5/7.5	No Exceedance
G57S	UA	Compliance	07/23/2024	D15	pH (field)	SU	6.6	6.6	6.5/7.5	No Exceedance
G57S	UA	Compliance	10/16/2024	D15R	pH (field)	SU	6.6	6.6	6.5/7.5	No Exceedance
G57S	UA	Compliance	01/26/2024	D14	Sulfate, total	mg/L	50.0	50.0	97.0	No Exceedance
G57S	UA	Compliance	04/24/2024	D14R	Sulfate, total	mg/L	49.0	49.0	97.0	No Exceedance
G57S	UA	Compliance	07/23/2024	D15	Sulfate, total	mg/L	48.0	48.0	97.0	No Exceedance
G57S	UA	Compliance	10/16/2024	D15R	Sulfate, total	mg/L	47.0	47.0	97.0	No Exceedance
G57S	UA	Compliance	01/26/2024	D14	Total Dissolved Solids	mg/L	820	820	499	Reported
G57S	UA	Compliance	04/24/2024	D14R	Total Dissolved Solids	mg/L	800	800	499	Confirmed
G57S	UA	Compliance	07/23/2024	D15	Total Dissolved Solids	mg/L	840	840	499	Reported
G57S	UA	Compliance	10/16/2024	D15R	Total Dissolved Solids	mg/L	800	800	499	Confirmed
G60L	PMP	Compliance	01/25/2024	D14	Boron, total	mg/L	0.0460 J+	0.0460	0.0590	No Exceedance
G60L	PMP	Compliance	04/24/2024	D14R	Boron, total	mg/L	0.0230	0.0230	0.0590	No Exceedance
G60L	PMP	Compliance	07/31/2024	D15	Boron, total	mg/L	0.0330	0.0330	0.0590	No Exceedance
G60L	PMP	Compliance	10/17/2024	D15R	Boron, total	mg/L	0.0230 J+	0.0230	0.0590	No Exceedance
G60L	PMP	Compliance	01/25/2024	D14	Calcium, total	mg/L	100	100	112	No Exceedance
G60L	PMP	Compliance	04/24/2024	D14R	Calcium, total	mg/L	97.0	97.0	112	No Exceedance
G60L	PMP	Compliance	07/31/2024	D15	Calcium, total	mg/L	100	100	112	No Exceedance
G60L	PMP	Compliance	10/17/2024	D15R	Calcium, total	mg/L	95.0	95.0	112	No Exceedance
G60L	PMP	Compliance	01/25/2024	D14	Chloride, total	mg/L	11.0	11.0	22.5	No Exceedance
G60L	PMP	Compliance	04/24/2024	D14R	Chloride, total	mg/L	9.10	9.10	22.5	No Exceedance
G60L	PMP	Compliance	07/31/2024	D15	Chloride, total	mg/L	7.30	7.30	22.5	No Exceedance
G60L	PMP	Compliance	10/17/2024	D15R	Chloride, total	mg/L	8.00	8.00	22.5	No Exceedance
G60L	PMP	Compliance	01/25/2024	D14	Fluoride, total	mg/L	0.095	0.25	0.564	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G60L	PMP	Compliance	04/24/2024	D14R	Fluoride, total	mg/L	0.11 J	0.25	0.564	No Exceedance
G60L	PMP	Compliance	07/31/2024	D15	Fluoride, total	mg/L	0.0599 J	0.25	0.564	No Exceedance
G60L	PMP	Compliance	10/17/2024	D15R	Fluoride, total	mg/L	0.2 U	0.25	0.564	No Exceedance
G60L	PMP	Compliance	01/25/2024	D14	pH (field)	SU	5.6	5.6	6.5/7.5	Reported
G60L	PMP	Compliance	04/24/2024	D14R	pH (field)	SU	6.2	6.2	6.5/7.5	Confirmed
G60L	PMP	Compliance	07/31/2024	D15	pH (field)	SU	6.1	6.1	6.5/7.5	Reported
G60L	PMP	Compliance	09/12/2024	ADD	pH (field)	SU	6.1	--	6.5/7.5	--
G60L	PMP	Compliance	10/17/2024	D15R	pH (field)	SU	8.3	8.3	6.5/7.5	Confirmed
G60L	PMP	Compliance	01/25/2024	D14	Sulfate, total	mg/L	150	150	97.0	Reported
G60L	PMP	Compliance	04/24/2024	D14R	Sulfate, total	mg/L	180	180	97.0	Confirmed
G60L	PMP	Compliance	07/31/2024	D15	Sulfate, total	mg/L	150	150	97.0	Reported
G60L	PMP	Compliance	10/17/2024	D15R	Sulfate, total	mg/L	160	160	97.0	Confirmed
G60L	PMP	Compliance	01/25/2024	D14	Total Dissolved Solids	mg/L	540	540	499	Reported
G60L	PMP	Compliance	04/24/2024	D14R	Total Dissolved Solids	mg/L	500	500	499	Confirmed
G60L	PMP	Compliance	07/31/2024	D15	Total Dissolved Solids	mg/L	560	560	499	Reported
G60L	PMP	Compliance	10/17/2024	D15R	Total Dissolved Solids	mg/L	500	500	499	Confirmed
G60S	UA	Compliance	01/25/2024	D14	Boron, total	mg/L	0.0340 J+	0.0340	0.0590	No Exceedance
G60S	UA	Compliance	04/24/2024	D14R	Boron, total	mg/L	0.0250	0.0250	0.0590	No Exceedance
G60S	UA	Compliance	07/23/2024	D15	Boron, total	mg/L	0.0140	0.0140	0.0590	No Exceedance
G60S	UA	Compliance	10/17/2024	D15R	Boron, total	mg/L	0.0150 J+	0.0150	0.0590	No Exceedance
G60S	UA	Compliance	01/25/2024	D14	Calcium, total	mg/L	170	170	112	Reported
G60S	UA	Compliance	04/24/2024	D14R	Calcium, total	mg/L	200	200	112	Confirmed
G60S	UA	Compliance	07/23/2024	D15	Calcium, total	mg/L	130	130	112	Reported
G60S	UA	Compliance	10/17/2024	D15R	Calcium, total	mg/L	130	130	112	Confirmed
G60S	UA	Compliance	01/25/2024	D14	Chloride, total	mg/L	5.20	5.20	22.5	No Exceedance
G60S	UA	Compliance	04/24/2024	D14R	Chloride, total	mg/L	5.60	5.60	22.5	No Exceedance
G60S	UA	Compliance	07/23/2024	D15	Chloride, total	mg/L	4.50	4.50	22.5	No Exceedance
G60S	UA	Compliance	10/17/2024	D15R	Chloride, total	mg/L	4.60	4.60	22.5	No Exceedance
G60S	UA	Compliance	01/25/2024	D14	Fluoride, total	mg/L	0.203	0.25	0.564	No Exceedance
G60S	UA	Compliance	04/24/2024	D14R	Fluoride, total	mg/L	0.197 J	0.25	0.564	No Exceedance
G60S	UA	Compliance	07/23/2024	D15	Fluoride, total	mg/L	0.25 UJ	0.25	0.564	No Exceedance
G60S	UA	Compliance	10/17/2024	D15R	Fluoride, total	mg/L	0.172 U	0.25	0.564	No Exceedance
G60S	UA	Compliance	01/25/2024	D14	pH (field)	SU	7.2	7.2	6.5/7.5	No Exceedance
G60S	UA	Compliance	04/24/2024	D14R	pH (field)	SU	6.7	6.7	6.5/7.5	No Exceedance
G60S	UA	Compliance	07/23/2024	D15	pH (field)	SU	6.7	6.7	6.5/7.5	No Exceedance
G60S	UA	Compliance	10/17/2024	D15R	pH (field)	SU	7.3	7.3	6.5/7.5	No Exceedance
G60S	UA	Compliance	01/25/2024	D14	Sulfate, total	mg/L	71.0	71.0	97.0	No Exceedance
G60S	UA	Compliance	04/24/2024	D14R	Sulfate, total	mg/L	79.0	79.0	97.0	No Exceedance
G60S	UA	Compliance	07/23/2024	D15	Sulfate, total	mg/L	70.0	70.0	97.0	No Exceedance
G60S	UA	Compliance	10/17/2024	D15R	Sulfate, total	mg/L	70.0	70.0	97.0	No Exceedance
G60S	UA	Compliance	01/25/2024	D14	Total Dissolved Solids	mg/L	580	580	499	Reported
G60S	UA	Compliance	04/24/2024	D14R	Total Dissolved Solids	mg/L	560	560	499	Confirmed
G60S	UA	Compliance	07/23/2024	D15	Total Dissolved Solids	mg/L	580	580	499	Reported
G60S	UA	Compliance	10/17/2024	D15R	Total Dissolved Solids	mg/L	580	580	499	Confirmed
G64L	PMP	Compliance	02/01/2024	D14	Boron, total	mg/L	0.01 U	0.01	0.0590	No Exceedance
G64L	PMP	Compliance	04/22/2024	D14R	Boron, total	mg/L	0.0210	0.0210	0.0590	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G64L	PMP	Compliance	07/31/2024	D15	Boron, total	mg/L	0.0100	0.0100	0.0590	No Exceedance
G64L	PMP	Compliance	10/22/2024	D15R	Boron, total	mg/L	0.0085 J	0.01	0.0590	No Exceedance
G64L	PMP	Compliance	02/01/2024	D14	Calcium, total	mg/L	120	120	112	Reported
G64L	PMP	Compliance	04/22/2024	D14R	Calcium, total	mg/L	130	130	112	Confirmed
G64L	PMP	Compliance	07/31/2024	D15	Calcium, total	mg/L	120	120	112	Reported
G64L	PMP	Compliance	10/22/2024	D15R	Calcium, total	mg/L	120	120	112	Confirmed
G64L	PMP	Compliance	02/01/2024	D14	Chloride, total	mg/L	3.00	3.00	22.5	No Exceedance
G64L	PMP	Compliance	04/22/2024	D14R	Chloride, total	mg/L	2.30	2.30	22.5	No Exceedance
G64L	PMP	Compliance	07/31/2024	D15	Chloride, total	mg/L	2.00	2.00	22.5	No Exceedance
G64L	PMP	Compliance	10/22/2024	D15R	Chloride, total	mg/L	1.70	1.70	22.5	No Exceedance
G64L	PMP	Compliance	02/01/2024	D14	Fluoride, total	mg/L	0.301	0.301	0.564	No Exceedance
G64L	PMP	Compliance	04/22/2024	D14R	Fluoride, total	mg/L	0.286	0.286	0.564	No Exceedance
G64L	PMP	Compliance	07/31/2024	D15	Fluoride, total	mg/L	0.24 J	0.25	0.564	No Exceedance
G64L	PMP	Compliance	10/22/2024	D15R	Fluoride, total	mg/L	0.211 J	0.25	0.564	No Exceedance
G64L	PMP	Compliance	02/01/2024	D14	pH (field)	SU	7.2	7.2	6.5/7.5	No Exceedance
G64L	PMP	Compliance	04/22/2024	D14R	pH (field)	SU	6.8	6.8	6.5/7.5	No Exceedance
G64L	PMP	Compliance	07/31/2024	D15	pH (field)	SU	7.0	7.0	6.5/7.5	No Exceedance
G64L	PMP	Compliance	10/22/2024	D15R	pH (field)	SU	6.9	6.9	6.5/7.5	No Exceedance
G64L	PMP	Compliance	02/01/2024	D14	Sulfate, total	mg/L	25.0	25.0	97.0	No Exceedance
G64L	PMP	Compliance	04/22/2024	D14R	Sulfate, total	mg/L	120	120	97.0	Exceedance Not Confirmed
G64L	PMP	Compliance	07/31/2024	D15	Sulfate, total	mg/L	57.0	57.0	97.0	No Exceedance
G64L	PMP	Compliance	10/22/2024	D15R	Sulfate, total	mg/L	53.0	53.0	97.0	No Exceedance
G64L	PMP	Compliance	02/01/2024	D14	Total Dissolved Solids	mg/L	500	500	499	Reported
G64L	PMP	Compliance	04/22/2024	D14R	Total Dissolved Solids	mg/L	690	690	499	Confirmed
G64L	PMP	Compliance	07/31/2024	D15	Total Dissolved Solids	mg/L	640	640	499	Reported
G64L	PMP	Compliance	10/22/2024	D15R	Total Dissolved Solids	mg/L	590	590	499	Confirmed
G64S	UA	Compliance	01/25/2024	D14	Boron, total	mg/L	0.0230 J+	0.0230	0.0590	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	Boron, total	mg/L	0.0180	0.0180	0.0590	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	Boron, total	mg/L	0.0190	0.0190	0.0590	No Exceedance
G64S	UA	Compliance	10/22/2024	D15R	Boron, total	mg/L	0.0150	0.0150	0.0590	No Exceedance
G64S	UA	Compliance	01/25/2024	D14	Calcium, total	mg/L	98.0	98.0	112	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	Calcium, total	mg/L	98.0	98.0	112	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	Calcium, total	mg/L	100	100	112	No Exceedance
G64S	UA	Compliance	10/22/2024	D15R	Calcium, total	mg/L	97.0	97.0	112	No Exceedance
G64S	UA	Compliance	01/25/2024	D14	Chloride, total	mg/L	4.8 U	2.5	22.5	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	Chloride, total	mg/L	2.50	2.50	22.5	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	Chloride, total	mg/L	2.80	2.80	22.5	No Exceedance
G64S	UA	Compliance	10/22/2024	D15R	Chloride, total	mg/L	2.70	2.70	22.5	No Exceedance
G64S	UA	Compliance	01/25/2024	D14	Fluoride, total	mg/L	0.280	0.280	0.564	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	Fluoride, total	mg/L	0.242 J	0.25	0.564	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	Fluoride, total	mg/L	0.219 J	0.25	0.564	No Exceedance
G64S	UA	Compliance	10/22/2024	D15R	Fluoride, total	mg/L	0.178 J	0.25	0.564	No Exceedance
G64S	UA	Compliance	01/25/2024	D14	pH (field)	SU	6.8	6.8	6.5/7.5	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	pH (field)	SU	6.7	6.7	6.5/7.5	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	pH (field)	SU	6.9	6.9	6.5/7.5	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Comparison Value	Background	SSI Type
G64S	UA	Compliance	10/22/2024	D15R	pH (field)	SU	6.9	6.9	6.5/7.5	No Exceedance
G64S	UA	Compliance	01/25/2024	D14	Sulfate, total	mg/L	22.0	22.0	97.0	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	Sulfate, total	mg/L	21.0	21.0	97.0	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	Sulfate, total	mg/L	23.0	23.0	97.0	No Exceedance
G64S	UA	Compliance	10/22/2024	D15R	Sulfate, total	mg/L	24.0	24.0	97.0	No Exceedance
G64S	UA	Compliance	01/25/2024	D14	Total Dissolved Solids	mg/L	480	480	499	No Exceedance
G64S	UA	Compliance	04/24/2024	D14R	Total Dissolved Solids	mg/L	420	420	499	No Exceedance
G64S	UA	Compliance	08/01/2024	D15	Total Dissolved Solids	mg/L	420 J	420	499	No Exceedance
G64S	UA	Compliance	10/22/2024	D15R	Total Dissolved Solids	mg/L	450	450	499	No Exceedance

Notes:
-- = not applicable
Comparison Value is different from the Result when the Result is below the Reporting Limit (RL). The Result will not be used in statistical calculations due to the inherent uncertainty in results that are below the RL. Half of the RL will be substituted for these data. See the *Multi-Site Statistical Analysis Plan* (Ramboll, 2022a) for more information.
Event IDs:
ADD = Additional sample event outside of quarterly events
D14 = Quarter 1, 2024 Detection Monitoring sampling event
D14R = Quarter 2, 2024 Detection Monitoring resampling event
D15 = Quarter 3, 2024 Detection Monitoring sampling event
D15R = Quarter 4, 2024 Detection Monitoring resampling event
HSU = hydrostratigraphic unit:
PMP = Potential Migration Pathway
UA = Uppermost Aquifer
ID = identification
mg/L = milligrams per liter
Result Code (if applicable):
NR[1] = Parameter not analyzed.
NS[1] = Well has been, or will be, abandoned; therefore, a sample was not collected.
NS[2] = Well either needs or was undergoing maintenance; therefore, a sample was not collected.
NS[3] = The location was not accessible; therefore, a sample was not collected.
NS[4] = The location could not be found; therefore, a sample was not collected.
NS[5] = The location was damaged; therefore, a sample was not collected.
NS[6] = Sampling pump could not yield a sample.
NS[7] = Well was either dry or purged dry and did not recover sufficiently to yield adequate volume for a sample.
NS[8] = A sample was not collected.
PM[1] = Parameter not analyzed as the well purged dry during sample collection and did not sufficiently recover to yield adequate sample volume for analysis.
Result qualifiers as defined in the United States Environmental Protection Agency's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA 542-R-20-006. November 2020.:
J- = The result is an estimated quantity, but the result may be biased low.
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
Statistically Significant Increase (SSI) Type:
No Exceedance: No exceedance of the background.
Exceedance Not Confirmed: An exceedance was determined in the parent event, a resample was collected, and the resample did not confirm the exceedance; or an exceedance was not determined in the parent event but a subsequent sample collected exhibited a concentration higher than background.
Reported: An exceedance in the parent event was observed and reported.
Confirmed: A resample confirmed an observed exceedance in the parent event.
SU = Standard Units

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TABLE 3
STATISTICAL BACKGROUND VALUES
2024 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Parameter	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL / UPL)
Boron (mg/L)	12/02/2015 - 06/28/2017	24	25	Parametric UPL (log-transformed)	0.0590
Calcium (mg/L)	12/02/2015 - 06/28/2017	24	0	Parametric UPL	112
Chloride (mg/L)	12/02/2015 - 06/28/2017	24	0	Parametric UPL (log-transformed)	22.5
Fluoride (mg/L)	12/02/2015 - 06/28/2017	24	21	Non-parametric UPL	0.564
pH (field) (SU)	12/02/2015 - 06/28/2017	24	0	Parametric LPL/UPL	6.5/7.5
Sulfate (mg/L)	12/02/2015 - 06/28/2017	24	33	Non-parametric UPL	97.0
Total Dissolved Solids (mg/L)	12/02/2015 - 06/28/2017	24	0	Parametric UPL (log-transformed)	499

Notes:
LPL = lower prediction limit (applicable for pH only)
mg/L = milligrams per liter
SU = standard units
UPL = upper prediction limit

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FIGURES

BACKGROUND WELL
COMPLIANCE WELL
SOURCE SAMPLE LOCATION
REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
PROPERTY BOUNDARY

0 150 300
Feet

MONITORING WELL LOCATION MAP

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT GMF POND

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
PORE WATER WELL
CCR SOURCE WATER SAMPLE
MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION
REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
PROPERTY BOUNDARY

0 150 300 Feet

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATIONS IN BRACKETS WERE OBTAINED OUTSIDE OF THE 24-HOUR PERIOD FROM INITIATION OF DEPTH TO GROUNDWATER MEASUREMENTS BUT WITHIN THE SAME SAMPLING EVENT.
3. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

POTENTIOMETRIC SURFACE MAP JANUARY 17 AND 18, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT GMF POND

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

RAMBOLL

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- PORE WATER WELL
- CCR SOURCE WATER SAMPLE
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- PROPERTY BOUNDARY

0 150 300 Feet

NOTES:
1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING
2.ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

POTENTIOMETRIC SURFACE MAP APRIL 12, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT GMF POND

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- PORE WATER WELL
- CCR SOURCE WATER SAMPLE
- MONITORING WELL

- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- PROPERTY BOUNDARY

0 150 300 Feet

NOTES:
1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING
2.ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

POTENTIOMETRIC SURFACE MAP JULY 22, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
GMF POND
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
PORE WATER WELL
CCR SOURCE WATER SAMPLE
MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION
REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
PROPERTY BOUNDARY

0 150 300 Feet

NOTES:
1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING
2.ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

POTENTIOMETRIC SURFACE MAP OCTOBER 14, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT GMF POND

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 5

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

APPENDICES

APPENDIX A
LABORATORY REPORTS AND FIELD DATA SHEETS

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

March 06, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HA02919

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HA03720

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HA03925

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HA04058

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HA04272

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HB00169

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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ANALYTICAL RESULTS

Sample: HA02919-02
Name: G50S
Matrix: Ground Water - Grab

Sampled: 01/19/24 11:55
Received: 01/19/24 14:02

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.9	mg/L		01/29/24 18:52	5	5.0	01/29/24 18:52	CRD	EPA 300.0 REV 2.1
Fluoride	0.275	mg/L		01/30/24 19:02	1	0.250	01/30/24 19:02	KCS1	EPA 300.0 REV 2.1
Sulfate	39	mg/L		01/29/24 18:52	5	5.0	01/29/24 18:52	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.25	Feet		01/19/24 11:55	1		01/19/24 11:55	FIELD	Field*
Dissolved oxygen, Field	2.2	mg/L		01/19/24 11:55	1		01/19/24 11:55	FIELD	Field*
Oxidation Reduction Potential	-25.0	mV		01/19/24 11:55	1	-500	01/19/24 11:55	FIELD	Field*
pH, Field Measured	6.79	pH Units		01/19/24 11:55	1		01/19/24 11:55	FIELD	Field*
Specific Conductance, Field Measured	673.0	umhos/cm		01/19/24 11:55	1		01/19/24 11:55	FIELD	Field*
Temperature, Field Measured	9.9	°C		01/19/24 11:55	1		01/19/24 11:55	FIELD	Field*
Turbidity, Field Measured	53.8	NTU		01/19/24 11:55	1	0.00	01/19/24 11:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	310	mg/L		01/23/24 10:16	1	10	01/23/24 10:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		01/23/24 10:16	1	10	01/23/24 10:16	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	420	mg/L		01/22/24 10:13	1	26	01/22/24 11:52	CPS	SM 2540C
Total Metals - PIA									
Boron	18	ug/L		01/22/24 08:53	5	10	01/29/24 11:39	TJJ	EPA 6020A
Calcium	89	mg/L		01/22/24 08:53	5	0.20	01/29/24 11:39	TJJ	EPA 6020A
Magnesium	36	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:39	TJJ	EPA 6020A
Potassium	0.47	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:39	TJJ	EPA 6020A
Sodium	8.2	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:39	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA02919-03
Name: G51S
Matrix: Ground Water - Grab

Sampled: 01/19/24 12:00
Received: 01/19/24 14:02

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	13	mg/L		01/29/24 19:52	10	10	01/29/24 19:52	CRD	EPA 300.0 REV 2.1
Sulfate	58	mg/L		01/29/24 19:52	10	10	01/29/24 19:52	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.39	Feet		01/19/24 12:00	1		01/19/24 12:00	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/19/24 12:00	1		01/19/24 12:00	FIELD	Field*
Oxidation Reduction Potential	-60.0	mV		01/19/24 12:00	1	-500	01/19/24 12:00	FIELD	Field*
pH, Field Measured	5.84	pH Units		01/19/24 12:00	1		01/19/24 12:00	FIELD	Field*
Specific Conductance, Field Measured	798.0	umhos/cm		01/19/24 12:00	1		01/19/24 12:00	FIELD	Field*
Temperature, Field Measured	5.9	°C		01/19/24 12:00	1		01/19/24 12:00	FIELD	Field*
Turbidity, Field Measured	943	NTU		01/19/24 12:00	1	0.00	01/19/24 12:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		01/23/24 10:16	1	10	01/23/24 10:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		01/23/24 10:16	1	10	01/23/24 10:16	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:27	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	400	mg/L		01/22/24 10:13	1	26	01/22/24 11:52	CPS	SM 2540C
Total Metals - PIA									
Boron	14	ug/L		01/22/24 08:53	5	10	01/29/24 11:43	TJJ	EPA 6020A
Calcium	98	mg/L		01/22/24 08:53	5	0.20	01/29/24 11:43	TJJ	EPA 6020A
Magnesium	42	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:43	TJJ	EPA 6020A
Potassium	0.74	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:43	TJJ	EPA 6020A
Sodium	7.2	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:43	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA02919-05
Name: G54S
Matrix: Ground Water - Grab

Sampled: 01/19/24 12:03
Received: 01/19/24 14:02

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 5.0	mg/L		01/29/24 20:32	5	5.0	01/29/24 20:32	CRD	EPA 300.0 REV 2.1
Sulfate	34	mg/L		01/29/24 20:32	5	5.0	01/29/24 20:32	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.34	Feet		01/19/24 12:03	1		01/19/24 12:03	FIELD	Field*
Dissolved oxygen, Field	4.1	mg/L		01/19/24 12:03	1		01/19/24 12:03	FIELD	Field*
Oxidation Reduction Potential	-40.0	mV		01/19/24 12:03	1	-500	01/19/24 12:03	FIELD	Field*
pH, Field Measured	6.19	pH Units		01/19/24 12:03	1		01/19/24 12:03	FIELD	Field*
Specific Conductance, Field Measured	974.0	umhos/cm		01/19/24 12:03	1		01/19/24 12:03	FIELD	Field*
Temperature, Field Measured	8.9	°C		01/19/24 12:03	1		01/19/24 12:03	FIELD	Field*
Turbidity, Field Measured	3.60	NTU		01/19/24 12:03	1	0.00	01/19/24 12:03	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	490	mg/L		01/23/24 10:16	1	10	01/23/24 10:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		01/23/24 10:16	1	10	01/23/24 10:16	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:30	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	540	mg/L		01/22/24 10:13	1	26	01/22/24 11:52	CPS	SM 2540C
Total Metals - PIA									
Boron	29	ug/L		01/22/24 08:53	5	10	01/29/24 11:51	TJJ	EPA 6020A
Calcium	120	mg/L		01/22/24 08:53	5	0.20	01/29/24 11:51	TJJ	EPA 6020A
Magnesium	51	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:51	TJJ	EPA 6020A
Potassium	0.72	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:51	TJJ	EPA 6020A
Sodium	11	mg/L		01/22/24 08:53	5	0.10	01/29/24 11:51	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-04
Name: G60L
Matrix: Ground Water - Grab

Sampled: 01/25/24 13:32
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	11	mg/L		02/05/24 18:51	5	5.0	02/05/24 18:51	CRD	EPA 300.0 REV 2.1
Sulfate	150	mg/L		02/05/24 19:10	25	25	02/05/24 19:10	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.04	Feet		01/25/24 15:32	1		01/25/24 15:32	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		01/25/24 15:32	1		01/25/24 15:32	FIELD	Field*
Oxidation Reduction Potential	68.0	mV		01/25/24 15:32	1	-500	01/25/24 15:32	FIELD	Field*
pH, Field Measured	5.56	pH Units		01/25/24 15:32	1		01/25/24 15:32	FIELD	Field*
Specific Conductance, Field Measured	915.0	umhos/cm		01/25/24 15:32	1		01/25/24 15:32	FIELD	Field*
Temperature, Field Measured	10.5	°C		01/25/24 15:32	1		01/25/24 15:32	FIELD	Field*
Turbidity, Field Measured	230	NTU		01/25/24 15:32	1	0.00	01/25/24 15:32	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/06/24 16:41	1	0.250	02/06/24 16:41	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	540	mg/L		01/30/24 10:29	1	26	01/30/24 13:14	CPS	SM 2540C
Total Metals - PIA									
Boron	46	ug/L		01/30/24 07:30	5	10	02/07/24 15:14	TJJ	EPA 6020A
Calcium	100	mg/L		01/30/24 07:30	5	0.20	02/06/24 14:12	TJJ	EPA 6020A
Magnesium	42	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:12	TJJ	EPA 6020A
Potassium	0.43	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:12	TJJ	EPA 6020A
Sodium	35	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:12	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-05
Name: G60S
Matrix: Ground Water - Grab

Sampled: 01/25/24 12:22
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.2	mg/L		02/09/24 00:03	5	5.0	02/09/24 00:03	TMS	EPA 300.0 REV 2.1
Sulfate	71	mg/L	Q4	02/05/24 20:27	10	10	02/05/24 20:27	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.41	Feet		01/25/24 12:22	1		01/25/24 12:22	FIELD	Field*
Dissolved oxygen, Field	7.6	mg/L		01/25/24 12:22	1		01/25/24 12:22	FIELD	Field*
Oxidation Reduction Potential	211	mV		01/25/24 12:22	1	-500	01/25/24 12:22	FIELD	Field*
pH, Field Measured	7.18	pH Units		01/25/24 12:22	1		01/25/24 12:22	FIELD	Field*
Specific Conductance, Field Measured	1080	umhos/cm		01/25/24 12:22	1		01/25/24 12:22	FIELD	Field*
Temperature, Field Measured	8.4	°C		01/25/24 12:22	1		01/25/24 12:22	FIELD	Field*
Turbidity, Field Measured	30.7	NTU		01/25/24 12:22	1	0.00	01/25/24 12:22	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	460	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/06/24 16:42	1	0.250	02/06/24 16:42	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	580	mg/L		01/30/24 10:29	1	26	01/30/24 13:14	CPS	SM 2540C
Total Metals - PIA									
Boron	34	ug/L		01/30/24 07:30	5	10	02/07/24 15:17	TJJ	EPA 6020A
Calcium	170	mg/L		01/30/24 07:30	5	0.20	02/06/24 14:16	TJJ	EPA 6020A
Magnesium	70	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:16	TJJ	EPA 6020A
Potassium	2.3	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:16	TJJ	EPA 6020A
Sodium	12	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:16	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-07
Name: G64S
Matrix: Ground Water - Grab

Sampled: 01/25/24 14:40
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 5.0	mg/L		02/05/24 22:24	5	5.0	02/05/24 22:24	CRD	EPA 300.0 REV 2.1
Sulfate	22	mg/L		02/05/24 22:24	5	5.0	02/05/24 22:24	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.26	Feet		01/25/24 14:40	1		01/25/24 14:40	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/25/24 14:40	1		01/25/24 14:40	FIELD	Field*
Oxidation Reduction Potential	-42.0	mV		01/25/24 14:40	1	-500	01/25/24 14:40	FIELD	Field*
pH, Field Measured	6.82	pH Units		01/25/24 14:40	1		01/25/24 14:40	FIELD	Field*
Specific Conductance, Field Measured	720.0	umhos/cm		01/25/24 14:40	1		01/25/24 14:40	FIELD	Field*
Temperature, Field Measured	11.5	°C		01/25/24 14:40	1		01/25/24 14:40	FIELD	Field*
Turbidity, Field Measured	19.6	NTU		01/25/24 14:40	1	0.00	01/25/24 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.280	mg/L		02/06/24 16:45	1	0.250	02/06/24 16:45	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	480	mg/L		01/30/24 10:29	1	26	01/30/24 13:14	CPS	SM 2540C
Total Metals - PIA									
Boron	23	ug/L		01/30/24 07:30	5	10	02/07/24 15:23	TJJ	EPA 6020A
Calcium	98	mg/L		01/30/24 07:30	5	0.20	02/06/24 14:24	TJJ	EPA 6020A
Magnesium	44	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:24	TJJ	EPA 6020A
Potassium	0.61	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:24	TJJ	EPA 6020A
Sodium	9.9	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:24	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03925-09
Name: G57S
Matrix: Ground Water - Grab

Sampled: 01/26/24 14:24
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L		02/06/24 20:20	10	10	02/06/24 20:20	KCS1	EPA 300.0 REV 2.1
Fluoride	0.267	mg/L		02/06/24 20:00	1	0.250	02/06/24 20:00	KCS1	EPA 300.0 REV 2.1
Sulfate	50	mg/L		02/06/24 20:20	10	10	02/06/24 20:20	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.91	Feet		01/26/24 14:24	1		01/26/24 14:24	FIELD	Field*
Dissolved oxygen, Field	2.2	mg/L		01/26/24 14:24	1		01/26/24 14:24	FIELD	Field*
Oxidation Reduction Potential	82.0	mV		01/26/24 14:24	1	-500	01/26/24 14:24	FIELD	Field*
pH, Field Measured	6.81	pH Units		01/26/24 14:24	1		01/26/24 14:24	FIELD	Field*
Specific Conductance, Field Measured	1200	umhos/cm		01/26/24 14:24	1		01/26/24 14:24	FIELD	Field*
Temperature, Field Measured	9.9	°C		01/26/24 14:24	1		01/26/24 14:24	FIELD	Field*
Turbidity, Field Measured	104	NTU		01/26/24 14:24	1	0.00	01/26/24 14:24	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	760	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	820	mg/L		02/01/24 11:01	1	26	02/01/24 13:28	OGS	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		01/31/24 10:11	5	10	02/08/24 14:05	TJJ	EPA 6020A
Calcium	180	mg/L		01/31/24 10:11	5	0.20	02/06/24 10:09	TJJ	EPA 6020A
Magnesium	99	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:09	TJJ	EPA 6020A
Potassium	0.55	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:09	TJJ	EPA 6020A
Sodium	12	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:09	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04058-01
Name: G02S
Matrix: Ground Water - Grab

Sampled: 01/29/24 14:33
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 5.0	mg/L	Q3	02/09/24 16:47	5	5.0	02/09/24 16:47	CRD	EPA 300.0 REV 2.1
Fluoride	0.257	mg/L	Q1	02/07/24 00:49	1	0.250	02/07/24 00:49	KCS1	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		02/07/24 00:49	1	1.0	02/07/24 00:49	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.42	Feet		01/29/24 14:33	1		01/29/24 14:33	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/29/24 14:33	1		01/29/24 14:33	FIELD	Field*
Oxidation Reduction Potential	-66.0	mV		01/29/24 14:33	1	-500	01/29/24 14:33	FIELD	Field*
pH, Field Measured	6.51	pH Units		01/29/24 14:33	1		01/29/24 14:33	FIELD	Field*
Specific Conductance, Field Measured	807.0	umhos/cm		01/29/24 14:33	1		01/29/24 14:33	FIELD	Field*
Temperature, Field Measured	8.4	°C		01/29/24 14:33	1		01/29/24 14:33	FIELD	Field*
Turbidity, Field Measured	52.6	NTU		01/29/24 14:33	1	0.00	01/29/24 14:33	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	340	mg/L		02/02/24 15:47	1	26	02/02/24 15:47	OGS	SM 2540C
Total Metals - PIA									
Boron	37	ug/L		02/01/24 08:15	5	10	02/08/24 13:29	TJJ	EPA 6020A
Calcium	97	mg/L		02/01/24 08:15	5	0.20	02/06/24 15:34	TJJ	EPA 6020A
Magnesium	37	mg/L		02/01/24 08:15	5	0.10	02/06/24 15:34	TJJ	EPA 6020A
Potassium	0.84	mg/L		02/01/24 08:15	5	0.10	02/06/24 15:34	TJJ	EPA 6020A
Sodium	14	mg/L		02/01/24 08:15	5	0.10	02/06/24 15:34	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04272-03
Name: G54L
Matrix: Ground Water - Grab

Sampled: 01/30/24 14:27
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	45	mg/L		02/09/24 13:21	25	25	02/09/24 13:21	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		02/13/24 14:36	1	0.250	02/13/24 14:36	KCS1	EPA 300.0 REV 2.1
Sulfate	120	mg/L		02/09/24 13:21	25	25	02/09/24 13:21	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.79	Feet		01/30/24 14:27	1		01/30/24 14:27	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		01/30/24 14:27	1		01/30/24 14:27	FIELD	Field*
Oxidation Reduction Potential	-30.0	mV		01/30/24 14:27	1	-500	01/30/24 14:27	FIELD	Field*
pH, Field Measured	6.77	pH Units		01/30/24 14:27	1		01/30/24 14:27	FIELD	Field*
Specific Conductance, Field Measured	1060	umhos/cm		01/30/24 14:27	1		01/30/24 14:27	FIELD	Field*
Temperature, Field Measured	10.8	°C		01/30/24 14:27	1		01/30/24 14:27	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		01/30/24 14:27	1	0.00	01/30/24 14:27	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	710	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	880	mg/L		02/01/24 13:37	1	26	02/01/24 15:42	CPS	SM 2540C
Total Metals - PIA									
Boron	18	ug/L		02/05/24 09:06	5	10	02/12/24 15:10	TJJ	EPA 6020A
Calcium	200	mg/L		02/05/24 09:06	5	0.20	02/06/24 17:06	TJJ	EPA 6020A
Magnesium	100	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:06	TJJ	EPA 6020A
Potassium	0.40	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:06	TJJ	EPA 6020A
Sodium	13	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:06	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HB00169-07
Name: G64L
Matrix: Ground Water - Grab

Sampled: 02/01/24 13:19
Received: 02/01/24 16:38
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.0	mg/L		02/13/24 04:28	1	1.0	02/13/24 04:28	CRD	EPA 300.0 REV 2.1
Sulfate	25	mg/L		02/13/24 04:46	5	5.0	02/13/24 04:46	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.9	Feet		02/01/24 13:19	1		02/01/24 13:19	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		02/01/24 13:19	1		02/01/24 13:19	FIELD	Field*
Oxidation Reduction Potential	128	mV		02/01/24 13:19	1	-500	02/01/24 13:19	FIELD	Field*
pH, Field Measured	7.23	pH Units		02/01/24 13:19	1		02/01/24 13:19	FIELD	Field*
Specific Conductance, Field Measured	877.0	umhos/cm		02/01/24 13:19	1		02/01/24 13:19	FIELD	Field*
Temperature, Field Measured	13.0	°C		02/01/24 13:19	1		02/01/24 13:19	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		02/01/24 13:19	1	0.00	02/01/24 13:19	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Fluoride	0.301	mg/L		02/16/24 16:30	1	0.250	02/16/24 16:30	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	500	mg/L		02/07/24 09:54	1	17	02/07/24 10:01	OGS	SM 2540C
Total Metals - PIA									
Boron	< 10	ug/L		02/06/24 09:16	5	10	02/16/24 14:12	TJJ	EPA 6020A
Calcium	120	mg/L		02/06/24 09:16	5	0.20	02/15/24 15:32	TJJ	EPA 6020A
Magnesium	65	mg/L		02/06/24 09:16	5	0.10	02/15/24 15:32	TJJ	EPA 6020A
Potassium	0.19	mg/L		02/06/24 09:16	5	0.10	02/15/24 15:32	TJJ	EPA 6020A
Sodium	7.2	mg/L		02/06/24 09:16	5	0.10	02/15/24 15:32	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HB00169-10
Name: X301
Matrix: Ground Water - Grab

Sampled: 02/01/24 14:56
Received: 02/01/24 16:38
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	520	mg/L		02/13/24 13:36	250	250	02/13/24 13:36	KCS1	EPA 300.0 REV 2.1
Sulfate	1000	mg/L		02/13/24 13:36	250	250	02/13/24 13:36	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Dissolved oxygen, Field	8.2	mg/L		02/01/24 14:56	1		02/01/24 14:56	FIELD	Field*
Oxidation Reduction Potential	171	mV		02/01/24 14:56	1	-500	02/01/24 14:56	FIELD	Field*
pH, Field Measured	7.19	pH Units		02/01/24 14:56	1		02/01/24 14:56	FIELD	Field*
Specific Conductance, Field Measured	3630	umhos/cm		02/01/24 14:56	1		02/01/24 14:56	FIELD	Field*
Temperature, Field Measured	8.0	°C		02/01/24 14:56	1		02/01/24 14:56	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		02/01/24 14:56	1	0.00	02/01/24 14:56	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	11	mg/L		02/13/24 15:50	1	2.0	02/13/24 15:50	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		02/13/24 15:50	1	2.0	02/13/24 15:50	TMS	SM 2320B 1997*
Fluoride	3.78	mg/L		02/16/24 16:37	1	0.250	02/16/24 16:37	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2600	mg/L	B2	02/08/24 08:59	1	17	02/08/24 10:08	OGS	SM 2540C
Total Metals - PIA									
Boron	11000	ug/L		02/06/24 09:16	20	40	02/16/24 14:19	TJJ	EPA 6020A
Calcium	250	mg/L		02/06/24 09:16	5	0.20	02/15/24 15:43	TJJ	EPA 6020A
Magnesium	190	mg/L		02/06/24 09:16	5	0.10	02/15/24 15:43	TJJ	EPA 6020A
Potassium	8.9	mg/L		02/06/24 09:16	5	0.10	02/15/24 15:43	TJJ	EPA 6020A
Sodium	54	mg/L		02/06/24 09:16	5	0.10	02/15/24 15:43	TJJ	EPA 6020A

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B423533 - SW 3015 - EPA 6020A									
Blank (B423533-BLK1)				Prepared: 01/22/24 Analyzed: 01/29/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B423533-BS1)				Prepared: 01/22/24 Analyzed: 01/29/24					
Boron	506	ug/L		555.6		91	80-120		
Calcium	5.53	mg/L		5.556		99	80-120		
Magnesium	5.51	mg/L		5.556		99	80-120		
Potassium	5.47	mg/L		5.556		99	80-120		
Sodium	5.60	mg/L		5.556		101	80-120		
Batch B423547 - No Prep - SM 2540C									
Blank (B423547-BLK1)				Prepared & Analyzed: 01/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B423547-BS1)				Prepared & Analyzed: 01/22/24					
Solids - total dissolved solids (TDS)	973	mg/L		1000		97	84.9-109		
Batch B423655 - No Prep - SM 2320B 1997									
Duplicate (B423655-DUP1)	**Sample: HA02919-05**			Prepared & Analyzed: 01/23/24					
Alkalinity - bicarbonate as CaCO3	512	mg/L			488			5	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B424144 - SW 3015 - EPA 6020A									
Blank (B424144-BLK1)				Prepared: 01/30/24 Analyzed: 02/07/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B424144-BS1)				Prepared: 01/30/24 Analyzed: 02/07/24					
Boron	554	ug/L		555.6		100	80-120		
Calcium	5.40	mg/L		5.556		97	80-120		
Magnesium	5.61	mg/L		5.556		101	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
Matrix Spike (B424144-MS1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 02/07/24					
Boron	602	ug/L		555.6	45.0	100	75-125		
Calcium	96.4	mg/L	Q4	5.556	94.2	40	75-125		
Magnesium	48.0	mg/L	Q4	5.556	44.1	71	75-125		
Potassium	6.37	mg/L		5.556	0.968	97	75-125		
Sodium	58.2	mg/L	Q4	5.556	54.5	67	75-125		
Matrix Spike Dup (B424144-MSD1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 02/07/24					
Boron	616	ug/L		555.6	45.0	103	75-125	2	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B424144-MSD1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 02/06/24					
Calcium	97.8	mg/L	Q4	5.556	94.2	64	75-125	1	20
Magnesium	48.6	mg/L		5.556	44.1	82	75-125	1	20
Potassium	6.44	mg/L		5.556	0.968	99	75-125	1	20
Sodium	58.8	mg/L		5.556	54.5	77	75-125	1	20
Batch B424172 - No Prep - SM 2540C									
Blank (B424172-BLK1)				Prepared & Analyzed: 01/30/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424172-BS1)				Prepared & Analyzed: 01/30/24					
Solids - total dissolved solids (TDS)	973	mg/L		1000		97	84.9-109		
Duplicate (B424172-DUP1)	**Sample: HA03720-01**			Prepared & Analyzed: 01/30/24					
Solids - total dissolved solids (TDS)	485	mg/L			505			4	5
Duplicate (B424172-DUP2)	**Sample: HA03720-05**			Prepared & Analyzed: 01/30/24					
Solids - total dissolved solids (TDS)	580	mg/L			575			0.9	5
Batch B424179 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424179-CCB1)				Prepared & Analyzed: 01/29/24					
Sulfate	0.00	mg/L							
Chloride	0.0578	mg/L							
Calibration Blank (B424179-CCB2)				Prepared & Analyzed: 01/29/24					
Sulfate	0.00	mg/L							
Chloride	0.0542	mg/L							
Calibration Check (B424179-CCV1)				Prepared & Analyzed: 01/29/24					
Sulfate	4.78	mg/L		5.000		96	90-110		
Chloride	4.68	mg/L		5.000		94	90-110		
Calibration Check (B424179-CCV2)				Prepared & Analyzed: 01/29/24					
Sulfate	4.96	mg/L		5.000		99	90-110		
Chloride	4.91	mg/L		5.000		98	90-110		
Matrix Spike (B424179-MS1)	**Sample: HA02919-01**			Prepared & Analyzed: 01/29/24					
Chloride	1.0E9	mg/L	Q4	1.500	7.4	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	77.6	NR	80-120		
Matrix Spike Dup (B424179-MSD1)	**Sample: HA02919-01**			Prepared & Analyzed: 01/29/24					
Sulfate	1.00E9	mg/L	Q4	1.500	77.6	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	7.4	NR	80-120	0	20
Batch B424278 - SW 3015 - EPA 6020A									
Blank (B424278-BLK1)				Prepared: 01/31/24 Analyzed: 02/05/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B424278-BS1)				Prepared: 01/31/24 Analyzed: 02/05/24					
Boron	594	ug/L		555.6		107	80-120		
Calcium	5.92	mg/L		5.556		106	80-120		
Magnesium	5.83	mg/L		5.556		105	80-120		
Potassium	5.82	mg/L		5.556		105	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B424278-BS1)				Prepared: 01/31/24 Analyzed: 02/05/24					
Sodium	5.86	mg/L		5.556		105	80-120		
Matrix Spike (B424278-MS1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/08/24					
Boron	544	ug/L		555.6	16.3	95	75-125		
Calcium	130	mg/L		5.556	126	75	75-125		
Magnesium	64.9	mg/L		5.556	60.6	77	75-125		
Potassium	6.17	mg/L		5.556	0.782	97	75-125		
Sodium	16.3	mg/L		5.556	11.0	96	75-125		
Matrix Spike Dup (B424278-MSD1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/08/24					
Boron	535	ug/L		555.6	16.3	93	75-125	2	20
Calcium	130	mg/L		5.556	126	81	75-125	0.2	20
Magnesium	65.2	mg/L		5.556	60.6	83	75-125	0.5	20
Potassium	6.16	mg/L		5.556	0.782	97	75-125	0.2	20
Sodium	16.3	mg/L		5.556	11.0	97	75-125	0.2	20
Batch B424283 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424283-CCB1)				Prepared & Analyzed: 01/30/24					
Fluoride	0.00	mg/L							
Calibration Blank (B424283-CCB2)				Prepared & Analyzed: 01/30/24					
Fluoride	0.00	mg/L							
Calibration Check (B424283-CCV1)				Prepared & Analyzed: 01/30/24					
Fluoride	5.02	mg/L		5.000		100	90-110		
Calibration Check (B424283-CCV2)				Prepared & Analyzed: 01/30/24					
Fluoride	5.43	mg/L		5.000		109	90-110		
Matrix Spike (B424283-MS1)	**Sample: HA02919-02**			Prepared & Analyzed: 01/30/24					
Fluoride	1.87	mg/L		1.500	0.275	106	80-120		
Matrix Spike Dup (B424283-MSD1)	**Sample: HA02919-02**			Prepared & Analyzed: 01/30/24					
Fluoride	1.82	mg/L		1.500	0.275	103	80-120	3	20
Batch B424357 - SW 3015 - EPA 6020A									
Blank (B424357-BLK1)				Prepared: 02/01/24 Analyzed: 02/05/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B424357-BS1)				Prepared: 02/01/24 Analyzed: 02/05/24					
Boron	579	ug/L		555.6		104	80-120		
Calcium	5.55	mg/L		5.556		100	80-120		
Magnesium	5.77	mg/L		5.556		104	80-120		
Potassium	5.61	mg/L		5.556		101	80-120		
Sodium	5.67	mg/L		5.556		102	80-120		
Matrix Spike (B424357-MS1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/06/24					
Calcium	103	mg/L		5.556	97.4	94	75-125		
Magnesium	41.9	mg/L		5.556	36.7	93	75-125		
Potassium	6.34	mg/L		5.556	0.843	99	75-125		
Sodium	19.5	mg/L		5.556	13.9	100	75-125		
Matrix Spike Dup (B424357-MSD1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/06/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B424357-MSD1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/06/24					
Calcium	102	mg/L		5.556	97.4	88	75-125	0.3	20
Magnesium	41.6	mg/L		5.556	36.7	88	75-125	0.6	20
Potassium	6.27	mg/L		5.556	0.843	98	75-125	1	20
Sodium	19.4	mg/L		5.556	13.9	98	75-125	0.7	20
Batch B424396 - No Prep - SM 2540C									
Blank (B424396-BLK1)				Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424396-BS1)				Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.9-109		
Duplicate (B424396-DUP1)	**Sample: HA04058-06**			Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	1780	mg/L			1730			3	5
Duplicate (B424396-DUP2)	**Sample: HA04058-07**			Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	2000	mg/L	M		2130			6	5
Batch B424416 - No Prep - SM 2540C									
Blank (B424416-BLK1)				Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424416-BS1)				Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	910	mg/L		1000		91	84.9-109		
Duplicate (B424416-DUP1)	**Sample: HA04274-01**			Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	335	mg/L			335			0	5
Duplicate (B424416-DUP2)	**Sample: HA04274-03**			Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	1070	mg/L			1090			2	5
Batch B424514 - No Prep - SM 2540C									
Blank (B424514-BLK1)				Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424514-BS1)				Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	910	mg/L		1000		91	84.9-109		
Duplicate (B424514-DUP1)	**Sample: HA04058-01**			Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	350	mg/L			345			1	5
Duplicate (B424514-DUP2)	**Sample: HA04058-04**			Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	1300	mg/L			1260			4	5
Batch B424521 - No Prep - SM 4500F C 1997									
Calibration Blank (B424521-CCB1)				Prepared & Analyzed: 02/02/24					
Fluoride	0.0180	mg/L							
Calibration Blank (B424521-CCB2)				Prepared & Analyzed: 02/02/24					
Fluoride	0.0180	mg/L							
Calibration Check (B424521-CCV1)				Prepared & Analyzed: 02/02/24					
Fluoride	0.678	mg/L		0.7000		97	90-110		
Calibration Check (B424521-CCV2)				Prepared & Analyzed: 02/02/24					
Fluoride	0.694	mg/L		0.7000		99	90-110		
Matrix Spike (B424521-MS1)	**Sample: HA02919-03**			Prepared & Analyzed: 02/02/24					
Fluoride	1.25	mg/L		1.000	0.223	103	80-120		
Matrix Spike (B424521-MS2)	**Sample: HA03720-13**			Prepared & Analyzed: 02/02/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B424521-MS2)	**Sample: HA03720-13**			Prepared & Analyzed: 02/02/24					
Fluoride	1.22	mg/L		1.000	0.205	101	80-120		
Matrix Spike Dup (B424521-MSD1)	**Sample: HA02919-03**			Prepared & Analyzed: 02/02/24					
Fluoride	1.26	mg/L		1.000	0.223	103	80-120	0.5	20
Matrix Spike Dup (B424521-MSD2)	**Sample: HA03720-13**			Prepared & Analyzed: 02/02/24					
Fluoride	1.23	mg/L		1.000	0.205	103	80-120	1	20
Batch B424604 - SW 3015 - EPA 6020A									
Blank (B424604-BLK1)				Prepared: 02/05/24 Analyzed: 02/12/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B424604-BS1)				Prepared: 02/05/24 Analyzed: 02/12/24					
Boron	571	ug/L		555.6		103	80-120		
Calcium	5.61	mg/L		5.556		101	80-120		
Magnesium	5.76	mg/L		5.556		104	80-120		
Potassium	5.48	mg/L		5.556		99	80-120		
Sodium	5.82	mg/L		5.556		105	80-120		
Matrix Spike (B424604-MS1)	**Sample: HA04272-01**			Prepared: 02/05/24 Analyzed: 02/12/24					
Boron	753	ug/L		555.6	127	113	75-125		
Calcium	108	mg/L		5.556	101	113	75-125		
Magnesium	50.7	mg/L		5.556	45.2	99	75-125		
Potassium	5.81	mg/L		5.556	0.254	100	75-125		
Sodium	14.0	mg/L		5.556	8.14	105	75-125		
Matrix Spike Dup (B424604-MSD1)	**Sample: HA04272-01**			Prepared: 02/05/24 Analyzed: 02/12/24					
Boron	743	ug/L		555.6	127	111	75-125	1	20
Calcium	106	mg/L		5.556	101	81	75-125	2	20
Magnesium	50.2	mg/L		5.556	45.2	89	75-125	1	20
Potassium	5.70	mg/L		5.556	0.254	98	75-125	2	20
Sodium	13.8	mg/L		5.556	8.14	102	75-125	1	20
Batch B424728 - SW 3015 - EPA 6020A									
Blank (B424728-BLK1)				Prepared: 02/06/24 Analyzed: 02/15/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B424728-BS1)				Prepared: 02/06/24 Analyzed: 02/15/24					
Boron	526	ug/L		555.6		95	80-120		
Calcium	5.33	mg/L		5.556		96	80-120		
Magnesium	5.63	mg/L		5.556		101	80-120		
Potassium	5.19	mg/L		5.556		93	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Batch B424742 - IC No Prep - EPA 300.0 REV 2.1									

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B424742-CCB1)				Prepared & Analyzed: 02/05/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Blank (B424742-CCB2)				Prepared & Analyzed: 02/05/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B424742-CCV1)				Prepared & Analyzed: 02/05/24					
Sulfate	4.97	mg/L		5.000		99	90-110		
Chloride	4.86	mg/L		5.000		97	90-110		
Calibration Check (B424742-CCV2)				Prepared & Analyzed: 02/05/24					
Sulfate	5.01	mg/L		5.000		100	90-110		
Chloride	4.79	mg/L		5.000		96	90-110		
Matrix Spike (B424742-MS1)	**Sample: HA03720-01**			Prepared & Analyzed: 02/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	13.6	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	11	NR	80-120		
Matrix Spike (B424742-MS2)	**Sample: HA03720-02**			Prepared & Analyzed: 02/05/24					
Chloride	< 1.0	mg/L	Q4	1.500	6.0	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	16.7	NR	80-120		
Matrix Spike (B424742-MS3)	**Sample: HA03720-05**			Prepared & Analyzed: 02/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	71.3	NR	80-120		
Matrix Spike Dup (B424742-MSD1)	**Sample: HA03720-01**			Prepared & Analyzed: 02/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	13.6	NR	80-120	0	20
Chloride	< 1.0	mg/L	Q4	1.500	11	NR	80-120		20
Matrix Spike Dup (B424742-MSD2)	**Sample: HA03720-02**			Prepared & Analyzed: 02/05/24					
Chloride	< 1.0	mg/L	Q4	1.500	6.0	NR	80-120		20
Sulfate	1.00E9	mg/L	Q4	1.500	16.7	NR	80-120	0	20
Matrix Spike Dup (B424742-MSD3)	**Sample: HA03720-05**			Prepared & Analyzed: 02/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	71.3	NR	80-120	0	20
Batch B424757 - No Prep - SM 4500F C 1997									
Calibration Blank (B424757-CCB1)				Prepared & Analyzed: 02/06/24					
Fluoride	0.00700	mg/L							
Calibration Blank (B424757-CCB2)				Prepared & Analyzed: 02/06/24					
Fluoride	0.0140	mg/L							
Calibration Check (B424757-CCV1)				Prepared & Analyzed: 02/06/24					
Fluoride	0.686	mg/L		0.7000		98	90-110		
Calibration Check (B424757-CCV2)				Prepared & Analyzed: 02/06/24					
Fluoride	0.699	mg/L		0.7000		100	90-110		
Batch B424779 - No Prep - SM 2320B 1997									
Duplicate (B424779-DUP1)	**Sample: HA03720-01**			Prepared & Analyzed: 02/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	488	mg/L			475			3	10
Duplicate (B424779-DUP2)	**Sample: HA03720-11**			Prepared & Analyzed: 02/06/24					
Alkalinity - bicarbonate as CaCO3	662	mg/L			638			4	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B424779-DUP4)	**Sample: HA03925-11**			Prepared & Analyzed: 02/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B424779-DUP4)	**Sample: HA03925-11**			Prepared & Analyzed: 02/06/24					
Alkalinity - bicarbonate as CaCO3	388	mg/L			388			0	10
Duplicate (B424779-DUP6)	**Sample: HA04058-01**			Prepared & Analyzed: 02/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	438	mg/L			400			9	10
Duplicate (B424779-DUP7)	**Sample: HA03925-01**			Prepared & Analyzed: 02/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	400	mg/L			388			3	10
Batch B424880 - No Prep - SM 2540C									
Blank (B424880-BLK1)				Prepared & Analyzed: 02/07/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424880-BS1)				Prepared & Analyzed: 02/07/24					
Solids - total dissolved solids (TDS)	927	mg/L		1000		93	84.9-109		
Batch B424892 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424892-CCB1)				Prepared & Analyzed: 02/06/24					
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B424892-CCV1)				Prepared & Analyzed: 02/06/24					
Fluoride	5.21	mg/L		5.000		104	90-110		
Chloride	4.90	mg/L		5.000		98	90-110		
Sulfate	5.24	mg/L		5.000		105	90-110		
Matrix Spike (B424892-MS1)	**Sample: HA03925-01**			Prepared & Analyzed: 02/06/24					
Fluoride	1.43	mg/L		1.500	ND	95	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	153	NR	80-120		
Matrix Spike (B424892-MS2)	**Sample: HA03925-05**			Prepared & Analyzed: 02/06/24					
Fluoride	1.34	mg/L	Q1	1.500	0.268	71	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike (B424892-MS3)	**Sample: HA03925-06**			Prepared & Analyzed: 02/06/24					
Fluoride	1.42	mg/L	Q1	1.500	0.226	79	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	39.2	NR	80-120		
Matrix Spike Dup (B424892-MSD1)	**Sample: HA03925-01**			Prepared & Analyzed: 02/06/24					
Fluoride	1.45	mg/L		1.500	ND	97	80-120	1	20
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	153	NR	80-120	0	20
Matrix Spike Dup (B424892-MSD2)	**Sample: HA03925-05**			Prepared & Analyzed: 02/06/24					
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120	0	20
Fluoride	1.35	mg/L	Q2	1.500	0.268	72	80-120	0.7	20
Matrix Spike Dup (B424892-MSD3)	**Sample: HA03925-06**			Prepared & Analyzed: 02/06/24					
Sulfate	1.00E9	mg/L	Q4	1.500	39.2	NR	80-120	0	20
Fluoride	1.38	mg/L	Q2	1.500	0.226	77	80-120	3	20
Batch B424893 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424893-CCB1)				Prepared & Analyzed: 02/06/24					
Fluoride	0.00	mg/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B424893-CCB1)				Prepared & Analyzed: 02/06/24					
Sulfate	0.00	mg/L							
Chloride	0.0683	mg/L							
Calibration Check (B424893-CCV1)				Prepared & Analyzed: 02/06/24					
Fluoride	5.31	mg/L		5.000		106	90-110		
Chloride	5.17	mg/L		5.000		103	90-110		
Sulfate	5.31	mg/L		5.000		106	90-110		
Matrix Spike (B424893-MS2)	**Sample: HA04058-01**			Prepared & Analyzed: 02/07/24					
Sulfate	1.34	mg/L		1.500	ND	89	80-120		
Fluoride	1.42	mg/L	Q1	1.500	0.257	78	80-120		
Matrix Spike Dup (B424893-MSD2)	**Sample: HA04058-01**			Prepared & Analyzed: 02/07/24					
Sulfate	1.45	mg/L		1.500	ND	96	80-120	8	20
Fluoride	1.47	mg/L		1.500	0.257	81	80-120	3	20
Batch B424981 - No Prep - SM 2540C									
Blank (B424981-BLK1)				Prepared & Analyzed: 02/08/24					
Solids - total dissolved solids (TDS)	20.0	mg/L	B						
LCS (B424981-BS1)				Prepared & Analyzed: 02/08/24					
Solids - total dissolved solids (TDS)	980	mg/L		1000		98	84.9-109		
Batch B425171 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B425171-CCB1)				Prepared & Analyzed: 02/08/24					
Chloride	0.0433	mg/L							
Calibration Check (B425171-CCV1)				Prepared & Analyzed: 02/08/24					
Chloride	4.95	mg/L		5.000		99	90-110		
Batch B425298 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B425298-CCB1)				Prepared & Analyzed: 02/09/24					
Chloride	0.00	mg/L							
Calibration Check (B425298-CCV1)				Prepared & Analyzed: 02/09/24					
Chloride	4.85	mg/L		5.000		97	90-110		
Matrix Spike (B425298-MS1)	**Sample: HA04058-01**			Prepared & Analyzed: 02/09/24					
Chloride	< 1.0	mg/L	Q1	1.500	2.0	NR	80-120		
Matrix Spike Dup (B425298-MSD1)	**Sample: HA04058-01**			Prepared & Analyzed: 02/09/24					
Chloride	< 1.0	mg/L	Q2	1.500	2.0	NR	80-120		20
Batch B425300 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B425300-CCB1)				Prepared & Analyzed: 02/09/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B425300-CCV1)				Prepared & Analyzed: 02/09/24					
Chloride	4.99	mg/L		5.000		100	90-110		
Sulfate	5.17	mg/L		5.000		103	90-110		
Matrix Spike (B425300-MS1)	**Sample: HA04272-01**			Prepared & Analyzed: 02/09/24					
Sulfate	1.00E9	mg/L	Q4	1.500	76.5	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	17	NR	80-120		
Matrix Spike Dup (B425300-MSD1)	**Sample: HA04272-01**			Prepared & Analyzed: 02/09/24					
Sulfate	1.00E9	mg/L	Q4	1.500	76.5	NR	80-120	0	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B425300-MSD1)	**Sample: HA04272-01**			Prepared & Analyzed: 02/09/24					
Chloride	1.0E9	mg/L	Q4	1.500	17	NR	80-120	0	20
Batch B425397 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B425397-CCB1)				Prepared & Analyzed: 02/12/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B425397-CCV1)				Prepared & Analyzed: 02/12/24					
Sulfate	5.17	mg/L		5.000		103	90-110		
Chloride	5.03	mg/L		5.000		101	90-110		
Batch B425557 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B425557-CCB1)				Prepared & Analyzed: 02/13/24					
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Chloride	0.0534	mg/L							
Calibration Check (B425557-CCV1)				Prepared & Analyzed: 02/13/24					
Fluoride	4.93	mg/L		5.000		99	90-110		
Sulfate	5.01	mg/L		5.000		100	90-110		
Chloride	4.93	mg/L		5.000		99	90-110		
Batch B425823 - No Prep - SM 4500F C 1997									
Calibration Blank (B425823-CCB1)				Prepared & Analyzed: 02/16/24					
Fluoride	0.0180	mg/L							
Calibration Blank (B425823-CCB2)				Prepared & Analyzed: 02/16/24					
Fluoride	0.0180	mg/L							
Calibration Check (B425823-CCV1)				Prepared & Analyzed: 02/16/24					
Fluoride	0.679	mg/L		0.7000		97	90-110		
Calibration Check (B425823-CCV2)				Prepared & Analyzed: 02/16/24					
Fluoride	0.694	mg/L		0.7000		99	90-110		
Matrix Spike (B425823-MS1)	**Sample: HB00169-07**			Prepared & Analyzed: 02/16/24					
Fluoride	1.33	mg/L		1.000	0.301	103	80-120		
Matrix Spike Dup (B425823-MSD1)	**Sample: HB00169-07**			Prepared & Analyzed: 02/16/24					
Fluoride	1.33	mg/L		1.000	0.301	103	80-120	0.3	20

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NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

B	Present in the method blank at 20 mg/L.
B2	Contamination does not impact data since sample result is greater than ten times the contamination level found in the blank.
M	Analyte failed to meet the required acceptance criteria for duplicate analysis.
Q1	Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q2	Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q3	Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q4	The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager

HA07914

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: ~~Sam Davies: samantha.davies@vistracorp.com~~	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GSOL	WT	G	1/19/24	1252		4	X		X																		
2	GSOS	WT	G	1/19/24	1155		5	X		X																		
3	GSIS	WT	G	1/19/24	1200		5	X		X																		
4	GS2L	WT	G	1/19/24	~~1202~~ 1257		5	X		X																		
5	GSES	WT	G	1/19/24	1203		5	X		X																		
6																												
7																												
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14																												
15																												
16																												

2127246

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		1/19/24	1402		1/19/24	1402	3.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/19/24

Appendix A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

HA03720

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A Required Client Information:
Company: Vistra Corp-Duck Creek
Address: 17751 North Cilco Rd
Canton, IL 61520
Email To: Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911 Fax:
Requested Due Date/TAT: 10 day

Section B Required Project Information:
Report To: Brian Voelker
Copy To: Sam Davies: samantha.davies@vistracorp.com
Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:
Project Name:
Project Number: 2285

Section C Invoice Information:
Attention: Brian Voelker
Company Name: Vistra Corp
Address: see Section A
Quote Reference:
Project Manager:
Profile #:

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N); Analysis Test: DC-257-203, DC-257-204, DC-257-205, DC-811-204, DC-845-201-202, DC-845-203, DC-845-205, DC-CLOSURE-201-202, DC-SUP-000, DC-WPCP-203-206; Residual Chlorine (Y/N); Project No./ Lab I.D.

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other
1	BA02	WT	G	1/25/24	1439		4	X		X					
2	BA03				1325		4	X		X					
3	BA03L				1219		4	X		X					
4	G60L			1/25/24	~~532~~ 1332		5	X		X					
5	G60S				1221		5	X		X					
6	G62L			1/25/24	~~407~~ 1515		5	X		X					
7	G64S				1440		5	X		X					
8	G65S				1120		4	X		X					
9	G67S				1252		4	X		X					
10	OR03D				1451		11	X	X	X					
11	OM21				1340		11	X	X	X					
12	OM22D				1140		11	X	X	X					
13	OM23D				1236		11	X	X	X					
14	EB15				1515		11	X	X	X					
15	EB16				1530		5	X		X					
16															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0	Austin Moore / Pace	01/25/24	1633	[signature]	1/25/24	1633	5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: AM, AP, TR, AW, TB
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 01/25/24

HA03925 ZC

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA01	WT	G	1/26/24	1222		4	X		X																				
2	BA01 Dup	WT	G	1/26/24	1222		4	X		X																				
3	BA04	WT	G	1/26/24	1338		4	X		X																				
4	BA06	WT	G	1/26/24	1453		4	X		X																				
5	G125	WT	G	1/26/24	1247		3	X		X																				
6	G155	WT	G	1/26/24	1150		3	X		X																				
7	G532	WT	G	1/26/24	1140		4	X		X																				
8	G535	WT	G	1/26/24	1240		4	X		X																				
9	G575	WT	G	1/26/24	1424		5	X		X																				
10	L103	WT	G	1/26/24	1059		2	X		X																				
11	OM07	WT	G	1/26/24	1354		11	X	X	X																				
12	OR11	WT	G	1/26/24	1210		11	X	X	X																				
13	OR11 Dup	WT	G	1/26/24	1210		11	X	X	X																				
14	OR20	WT	G	1/26/24	1300		11	X	X	X																				
15	R37L	WT	G	1/26/24	1403		2	X		X																				
16	Equipment Blank	WT	G	1/26/24	1430		11	X	X	X																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-24Q1 Rev 0		1/26/24	1604			
					1/26/24	1604

SAMPLE CONDITIONS			
Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/26/24

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A — **Required** Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	**10 day**

Section B — **Required** Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C — Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES | **GROUND WATER** | DRINKING WATER

UST | RCRA | OTHER

Site Location **STATE:** IL

Section D — **Required** Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N: Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GO25	WT	G	1/29/24	1433		4	X		X																			HA04058 JDS1
2	G55L	WT	G	1/29/24	1117		4	X		X																			
3	G67L	WT	G	1/29/24	1305		4	X		X																			
4	OM12	WT	G	1/29/24	1300		11	X	X	X																			
5	OM16	WT	G	1/29/24	1150		11	X	X	X																			
6	~~OR15~~ OR135	WT	G	1/29/24	1500		11	X	X	X																			
7	OR19	WT	G	1/29/24	1400		11	X	X	X																			
8	EB8	WT	G	1/29/24	1515		11	X	X	X																			
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		1/29/24	1629							
					1/29/24	1629	5.4	Y	Y	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Lambertson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/29/24

COURIER

HA04272

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GSIL	WT	G	1/30/24	1225		4	X		X																	
2	GSIL Dup	WT	G	1/30/24	1225		4	X		X																	
3	GS4L	WT	G	1/30/24	1427		5	X		X																	
4	OM24D	WT	G	1/30/24	1405		11	X	X	X																	
5	OM24D Dup	WT	G	1/30/24	1405		11	X	X	X																	
6	OM25S	WT	G	1/30/24	1506		11	X	X	X																	
7	OR02	WT	G	1/30/24	1531		11	X	X	X																	
8	OR13D	WT	G	1/30/24	1136		11	X	X	X																	
9	EB-9	WT	G	1/30/24	1555		11	X	X	X																	
10	EB-10	WT	G	1/30/24	1555		12	X	X	X																	
11																											
12																											
13																											
14																											
15																											
16																											

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		1/30/24	1703							
					1/30/24	1703	6.8	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/30/24

HB001609 SM - 2.1.24
HB00235

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G04S	WT	G	2/1/24	1200		3	X		X																		
2	G07L	WT	G	2/1/24	1003		2	X		X																		
3	G08L	WT	G	2/1/24	1034		2	X		X																		
4	G09L	WT	G	2/1/24	1056		2	X		X																		
5	G63L	WT	G	2/1/24	1437		4	X		X																		
6	G 63L Dup	WT	G	2/1/24	1437		4	X		X																		
7	G64L	WT	G	2/1/24	1319		5	X		X																		
8	P05L	WT	G	2/1/24	1126		5	X	X	X		X																
9	P36L	WT	G	2/1/24	0938		3	X		X																		
10	X301	WT	G	2/1/24	1456		3	X		X																		
11	EB12	WT	G	2/1/24	1534		9	X	X	X		X																
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q1 Rev 0		2/1/24	1038		2/1/24	1638	7.1

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 02/01/24

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01C	DC-BA01!C	205	BAB	1/17/24	1019	13.50		LR
BA01L	DC-BA01!L	205	BAB	1/17/24	1021	12.43		LR
G02D	DC-G02&D	204	LF	1/24/24	1342	22.10		LR
G02L	DC-G02!L	204	LF	1/24/24	1338	6.63		LR
G03L	DC-G03!L	204	LF	1/17/24	1227	5.05		AM
G03S	DC-G03#S	204	LF	1/17/24	1228	5.08		AM
G04L	DC-G04!L	204	LF	1/24/24	1318	15.02		BCa
G04S	DC-G04#S	204	LF	1/24/24	1319	14.48		LR
G06L	DC-G06!L	204	LF	1/17/24	1441	20.64		AM
G06S	DC-G06#S	204	LF	1/17/24	1439	20.64		AM
G07L	DC-G07!L	204	LF	1/17/24	1442	20.42		AM
G08L	DC-G08!L	204	LF	1/17/24	1445	20.07		AM
G09L	DC-G09!L	204	LF	1/17/24	1424	20.60		LR
G09S	DC-G09#S	204	LF	1/17/24	1426	20.39		LR
G12L	DC-G12!L	204	LF	1/17/24	1411	23.31		LR
G12S	DC-G12#S	204	LF	1/17/24	1409	23.98		LR
G14L	DC-G14!L	204	LF	1/17/24	1402	26.44		LR
G15L	DC-G15!L	204	LF	1/17/24	1350	32.22		LR
G15S	DC-G15#S	204	LF	1/17/24	1348	32.31		LR
G16L	DC-G16!L	204	LF	1/17/24	1344	29.65		LR
G50L	DC-G50!L	203	GMF	1/17/24	1017	10.85		JB
G51L	DC-G51!L	203	GMF	1/17/24	1005	10.48	Pump removed	JB
G52L	DC-G52!L	203	GMF	1/17/24	0951	24.78		JB
G54C	DC-G54!C	203	GMF	1/17/24	~~1505~~ 0945 APP 1/18/24	37.14		JB

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G52S	DC-G52#S	203	GMF	01/17/24	09:55	29.85		JB
G53L	DC-G53!L	203	GMF	01/17/24	10:31	11.76		JB
G53S	DC-G53#S	203	GMF	01/17/24	10:31	13.35		JB
G55L	DC-G55!L	203	GMF	01/17/24	15:13	20.95		JB
G55S	DC-G55#S	203	GMF	01/17/24	15:13	21.78		JB
G56L	DC-G56!L	203	GMF	01/17/24	13:57	19.98	Not locked on arrival	JB
G56S	DC-G56#S	203	GMF	01/17/24	13:57	20.15		JB
G57L	DC-G57!L	203	GMF	01/17/24	13:48	23.8	Not locked on arrival	JB
G58L	DC-G58!L	203	GMF	01/17/24	13:39	28.3	Not locked on arrival	JB
G58S	DC-G58#S	203	GMF	01/17/24	13:39	28.06		JB
G59L	DC-G59!L	203	GMF	01/17/24	13:33	31.33	Not locked on arrival	JB
G59S	DC-G59#S	203	GMF	01/17/24	13:33	33.44		JB
G61S	DC-G61#S	203	GMF	01/17/24	11:42	22.43		JB
G62L	DC-G62!L	203	GMF	01/17/24	11:18	23.46		JB
G63L	DC-G63!L	203	GMF	01/17/24	10:55	25.32		JB
G63S	DC-G63#S	203	GMF	01/17/24	10:55	25.51		JB
G65L	DC-G65!L	203	GMF	01/17/24	14:20	19.74		JB
G65S	DC-G65#S	203	GMF	01/17/24	14:20	20.03		JB
G66L	DC-G66!L	203	GMF	01/17/24	14:09	13.79	Pump removed	JB
G66S	DC-G66#S	203	GMF	01/17/24	14:09	14.09		JB
G67L	DC-G67!L	203	GMF	01/17/24	14:05	12.41		JB
G67S	DC-G67#S	203	GMF	01/17/24	14:05	13.25		JB
G68L	DC-G68!L	203	GMF	01/17/24	15:05	12.97		JB

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G68S	DC-G68#S	203	GMF	1/17/24	1505	13.78		JB
G69L	DC-G69!L	203	GMF	1/17/24	1507	13.67		JB
G69S	DC-G69#S	203	GMF	1/17/24	1507	16.62		AW
G70L	DC-G70!L	203	GMF	1/17/24	1456	16.18		JB
G71L	DC-G71!L	203	GMF	1/17/24	1449	18.58		JB
G71S	DC-G71#S	203	GMF	1/17/24	1445	19.45		JB
G72L	DC-G72!L	203	GMF	1/17/24	1441	20.32		AW
G73L	DC-G73!L	203	GMF	1/17/24	1438	26.50		JB
L103	DC-L103	204	LF	1/18/24	1024	1.97		JR
OM05S	DC-OM05#S	201-202	AP1/2	1/18/24	1034	22.67		AP
OM08	DC-OM08	201-202	AP1/2	1/18/24	1111	14.39		LR
OM09	DC-OM09	201-202	AP1/2	1/17/24	1315	3.40		AP
OM10	DC-OM10	201-202	AP1/2	1/17/24	1125	13.15		AP
OM15	DC-OM15	201-202	AP1/2	1/18/24	1200	27.34		JR
OM22S	DC-OM22#S	201-202	AP1/2	1/17/24	1331	20.10		AP
OM23S	DC-OM23#S	201-202	AP1/2	1/17/24	1411	42.06		AP
OM25D	DC-OM25&D	201-202	AP1/2	1/17/24	1446	57.95		AP
OR03S	DC-OR03#S	201-202	AP1/2	1/18/24	1042	45.64		LR
OR05D	DC-OR05&D	201-202	AP1/2	1/18/24	1032	22.07		AP
OR14S	DC-OR14#S	201-202	AP1/2	1/18/24	1055	6.72		AP
OR18	DC-OR18	201-202	AP1/2	1/17/24	1031	20.07		AP
P01I	DC-P01$I	204	LF	1/24/24	1354	8.26		LR
P01L	DC-P01!L	204	LF	1/24/24	1353	6.89		LR

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P01S	DC-P01#S	204	LF	1/24/24	1352	6.82		LR
P02S	DC-P02#S	204	LF	1/24/24	1340	7.40		LR
P04S	DC-P04#S	204	LF	1/24/24	1319	14.48	GOUS	LR
P05D	DC-P05&D	204	LF	1/24/24	1313	5.70		LR
P05L	DC-P05!L	204	LF	1/24/24	1309	4.37		LR
P05S	DC-P05#S	204	LF	1/24/24	1311	4.53	GOSL	LR
P36D	DC-P36&D	204	LF	1/17/24	1515	11.14		LR
P36L	DC-P36!L	204	LF	1/17/24	1517	10.24		LR
P36S	DC-P36#S	204	LF	1/17/24	1519	10.45		LR
P37D	DC-P37&D	204	LF	1/17/24	1422	15.35		LR
P37L	DC-P37!L	204	LF	1/17/24	1420	13.77		LR
P38L	DC-P38!L	204	LF	1/17/24	1358	19.49		LR
P38S	DC-P38#S	204	LF	1/17/24	1356	19.11		LR
P39D	DC-P39&D	204	LF	1/17/24	1333	13.70		LR
P39L	DC-P39!L	204	LF	1/17/24	1337	4.49		LR
P39S	DC-P39#S	204	LF	1/17/24	1335	4.63		LR
P40L	DC-P40!L	204	LF	1/17/24	1138	8.50		LR
P40S	DC-P40#S	204	LF	~~1/17/24~~	~~1136~~	~~4.81~~	4.77 2/6/24 1339 AP	~~LR~~ BG 2/7/24
P41D	DC-P41&D	204	LF	1/17/24	1110	37.21		LR
P41L	DC-P41!L	204	LF	1/17/24	1114	7.08		LR
P41S	DC-P41#S	204	LF	1/17/24	1112	9.45		LR
P42D	DC-P42&D	204	LF	1/17/24	1120	38.35		LR
P42I1	DC-P42$I1	204	LF	1/17/24	1122	5.60		LR

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P42I2	DC-P42%I2	204	LF	1/17/24	1124	33.06		LR
P42L	DC-P42!L	204	LF	1/17/24	1126	4.68		LR
P42S	DC-P42#S	204	LF	1/17/24	1128	5.43		LR
P52	DC-P52	203	GMF	1/17/24	1352	15.91		JB
P57L	DC-P57!L	203	GMF	1/17/24	1429	17.26		JB
P57S	DC-P57#S	203	GMF	1/17/24	1429	16.91		JB
P60	DC-P60	203	GMF	1/17/24	1210	27.84		JB
P61	DC-P61	203	GMF	1/17/24	1144	12.34		JB
P62	DC-P62	203	GMF	1/17/24	1114	13.59		JB
P63	DC-P63	203	GMF	1/17/24	1056	16.16		JB
P64	DC-P64	203	GMF	1/17/24	1132	14.66		JB
R10L	DC-R10!L	204	LF	1/17/24	1418	22.00		LR
R11L	DC-R11!L	204	LF	1/17/24	1416	22.60		LR
R13L	DC-R13!L	204	LF	1/17/24	1406	22.96		LR
R61L	DC-R61!L	203	GMF	1/17/24	1141	22.23	lock broke	JB
R72S	DC-R72#S	203	GMF	1/17/24	1441	20.18		JB
T43L	DC-T43!L	204	LF	1/17/24	1428	6.65		LR
T44L	DC-T44!L	204	LF	1/17/24	1451	10.01		LR
T45L	DC-T45!L	204	LF	1/17/24	1453	5.70		LR
T46L	DC-T46!L	204	LF	1/17/24	1511	6.45		LR
X301	DC-X301-leachate	203	GMF	1/18/24	1219	–	no measuring point	JB
XTPW02	DC-XTPW02-pore	203	GMF	1/18/24	1208	6.90	DRY	LR

U:6/19/23 GKJ

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	1/17/24	1017	14.07	21615533	yes	573.36	yes	H		LR
BA02	DC-BA02	205	BAB	1/17/24	1007	8.89	21615636	yes	571.85	yes	H		LR
BA02L	DC-BA02!L	205	BAB	1/17/24	1009	8.70	21615682	yes	4.63	yes	H		LR
BA03	DC-BA03	205	BAB	1/17/24	0955	5.92	21615637	yes	572.77	yes	H		LR
BA03L	DC-BA03!L	205	BAB	1/17/24	0953	5.49	21615687	yes	572.47	yes	H		LR
BA04	DC-BA04	205	BAB	1/17/24	1030	6.16	21615631	yes	572.21	yes	H		LR
BA05	DC-BA05#	205	BAB	1/17/24	1047	17.45	21615540	yes	578.28	yes	H		LR
BA06	DC-BA06	205	BAB	1/17/24	1044	20.05	21615525	yes	575.09	yes	H		LR
G02S	DC-G02#S	204	LF	1/24/24	1340	7.40	21615554	Yes	614.32	Yes	H		JR
G50S	DC-G50#S	203	GMF	1/17/24	1016	12.02	21615535	yes	611.78	yes	H		JB
G51S	DC-G51#S	203	GMF	1/17/24	1000	9.86	21615691	yes	609.78	yes	H		JB
G54L	DC-G54!L	203	GMF	1/17/24	0937	22.85	21615690	yes	600.07	yes	H		JB
G54S	DC-G54#S	203	GMF	1/17/24	0938	24.11	21615684	yes	599.18	yes	H		JB
G57S	DC-G57#S	203	GMF	1/17/24	1344	23.45	21615683	yes	599.15	yes	H		JB
G60L	DC-G60!L	203	GMF	1/17/24	1209	14.99	21615678	yes	600.23	yes	H		JB
G60S	DC-G60#S	203	GMF	1/17/24	1209	24.56	21615677	yes	590.35	yes	H		JB
G64L	DC-G64!L	203	GMF	1/17/24	1050	23.83	21615688	yes	598.56	yes	H		JB
G64S	DC-G64#S	203	GMF	1/17/24	1050	24.73	21615632	yes	598.39	yes	H		JB

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC

Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OM01	DC-OM01	201-202	AP1/2	1/17/24	1350	12.60	21615685	yes	582.62	yes	H		AP
OM04S	DC-OM04#S	201-202	AP1/2	1/18/24	1042	21.10	21615542	yes	586.08	yes	H		LR
OM07	DC-OM07	201-202	AP1/2	1/18/24	1011	13.24	21615541	-	-	-	-	No transducer	~~JR~~
OM12	DC-OM12	201-202	AP1/2	1/18/24	1107	17.73	21615527	-	-	-	-	No transducer	JR
OM16	DC-OM16	201-202	AP1/2	1/17/24	1050	28.25	21615539	yes	579.60	yes	H		AP
OM17	DC-OM17	201-202	AP1/2	1/17/24	1104	11.72	21615693	yes	580.02	yes	H		AP
OM21	DC-OM21	201-202	AP1/2	1/18/24	1103	11.88	21615593	yes	594.52	yes	H		AP
OM22D	DC-OM22&D	201-202	AP1/2	1/17/24	1332	19.94	21615592	yes	579.24	yes	H		AP
OM23D	DC-OM23&D	201-202	AP1/2	1/17/24	1413	39.30	21615591	yes	573.94	yes	H		AP
OM24D	DC-OM24&D	201-202	AP1/2	1/17/24	1459	3.63	21615522	yes	573.28	yes	H		AP
OM25S	DC-OM25#S	201-202	AP1/2	1/17/24	1449	58.19	21615681	yes	570.76	yes	H		AP
OR02	DC-OR02	201-202	AP1/2	1/17/24	1437	5.42	21615679	yes	595.83	yes	H		AP
OR03D	DC-OR03&D	201-202	AP1/2	1/18/24	1045	45.13	21615577	yes	582.76	yes	H		LR
OR04D	DC-OR04&D	201-202	AP1/2	1/18/24	1040	21.81	21615570	yes	585.80	yes	H		LR
OR06A	DC-OR06!A	201-202	AP1/2	1/18/24	1024	14.10	21615692	yes	581.30	yes	H		AP
OR11	DC-OR11	201-202	AP1/2	1/18/24	1051	31.24	21615686	yes	564.96	yes	H		JR
OR13S	DC-OR13#S	201-202	AP1/2	1/18/24	1039	12.97	21615676	yes	584.55	yes	H		AP
OR13D	DC-OR13&D	201-202	AP1/2	1/18/24	1042	13.62	21564135	yes	588.89	yes	H		AP

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs on SAR-4 form may be collected at anytime during the sampling event.
Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-202	AP1/2	1/18/24	1055	10.48	21615611	yes	556.64	yes	H		AP
OR19	DC-OR19	201-202	AP1/2	1/18/24	1123	24.66	21615634	yes	573.06	yes	H		JR
OR20	DC-OR20	201-202	AP1/2	1/18/24	1040	21.49	21615610	yes	566.01	yes	H		JR

Notes:
Batt = battery
bmp = below measuring point
ft = feet
H = high
L = low
M = medium
R = replaced

WELL/SAMPLE POINT G02S **Purge Method:** Compressor

Date: 01/29/2024 Start Time: 13:22 Finish/Sample Time: 14:33

Well Depth (Bottom) From MP: 29.81 ft Min. Purge Volume: _____ Gal / L/ mL

Depth to Water From MP: 6.42 ft Total Purge Volume: 1000 Gal / L/ mL

Water Column Length: 23.39 ft

Well Water Volume: AW 1/29/24 14.16 Gal / L Total Drawdown: 0.80 ft
6.93

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1351	~~6.63~~	100	6.54	817	8.36	-61	0.00	61.2
2	1352	6.93	100	6.53	812	8.40	-62	0.00	60.3
3	1353	6.93	100	6.52	809	8.41	-64	0.00	55.3
4	1354	6.93	100	6.52	805	8.41	-65	0.00	56.0
5	1355	6.93	100	6.51	807	8.43	-66	0.00	52.6
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 7.29 ft

Comments

Sampler's Signature: JBOhanran

WELL/SAMPLE POINT G50S **Purge Method:** Bladder

Date: 1/19/2024 Start Time: 1041 Finish/Sample Time: 1155

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: 1000 Gal / L/ mL

Depth to Water From MP: 12.25 ft Total Purge Volume: 1000 Gal / L/ mL

Water Column Length: 25.05 ft

Well Water Volume: 15.15 Gal / L Total Drawdown: 4.65 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1057	15.60	100	6.71	625	10.10	-13	2.11	76.5
2	1100	16.09	100	6.80	674	9.41	-20	1.99	64.8
3	1103	16.59	100	6.79	673	9.96	-25	2.15	53.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

(5)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 16.90 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT G51S **Purge Method:** BLADDER

Date: 1/19/24 Start Time: 1046 Finish/Sample Time: 1200

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1000 Gal / L/ mL

Depth to Water From MP: 10.39 ft Total Purge Volume: 1600 Gal / L/ mL

Water Column Length: 21.78 ft

Well Water Volume: 13.19 Gal / (L) Total Drawdown: 8.01 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11 02	13.32	100	5.84	798	6.05	-56	0.00	>1000
2	11 05	13.51	100	5.83	798	5.92	-59	0.00	>1000
3	11 08	13.62	100	5.84	798	5.85	-60	0.00	943
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 18.40 ft

Comments

Sampler's Signature: [signature]

BG

Duck Creek

WELL/SAMPLE POINT G54L **Purge Method:** Portable Pump

Date: ~~01/29/2024~~ 30-Jan-24 Start Time: ~~11:23~~ 1319 Finish/Sample Time: ~~1319~~ 1427

Well Depth (Bottom) From MP: 40.30 ft Min. Purge Volume: 1 Gal / 0 mL

Depth to Water From MP: 21.79 ft Total Purge Volume: 1.7 Gal 0 mL

Water Column Length: 18.51 ft

Well Water Volume: 11.21 Gal / 0 Total Drawdown: 4.04 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1330	24.36	100	6.60	1120	10.63	-27	1.82	0.0
2	1333	24.49	100	6.63	1100	10.75	-28	1.69	0.0
3	1336	24.50	100	6.77	1060	10.83	-30	1.50	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 25.83 ft

Comments **Check pH if readings are below 6.5**

Sampler's Signature: Aaron M

Duck Creek

WELL/SAMPLE POINT G54S **Purge Method:** Compressor

Date: 01/19/2024 Start Time: 10:37 Finish/Sample Time: 12:03

Well Depth (Bottom) From MP: **51.26** ft Min. Purge Volume: 1000 Gal / L/ mL

Depth to Water From MP: 24.34 ft Total Purge Volume: 1000 Gal / L/ (mL)

Water Column Length: 26.92 ft

Well Water Volume: 16.30 Gal / L Total Drawdown: 0.95 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:14	25.18	100	6.23	968	3.75	-96	4.21	29.1
2	11:15	25.18	100	6.14	972	3.91	-44	4.09	10.6
3	11:16	25.18	100	6.19	974	3.87	-40	4.13	3.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
1	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 25.29 ft

Comments **Check pH if readings are below 6.5**

Sampler's Signature: JB Thorsen

WELL/SAMPLE POINT G57S **Purge Method:** Compressor

Date: 01/26/2024 Start Time: 13:18 Finish/Sample Time: 14:24

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: _____ Gal / L/ mL

Depth to Water From MP: 22.91 ft Total Purge Volume: 1000 Gal / L/ mL

Water Column Length: 14.49 ft

Well Water Volume: 8.78 Gal / L Total Drawdown: 23.53 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:43	23.53	100	6.82	1,200	9.43	93	2.63	137
2	13:44	23.53	100	6.82	1,200	9.49	90	2.43	129
3	13:45	23.53	100	6.81	1,190	9.52	86	2.31	122
4	13:46	23.53	100	6.81	1200	9.71	84	2.22	114
5	13:47	23.53	100	6.81	1200	9.87	82	2.15	104
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba 1/26

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 0.62 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Sampler's Signature: JBohannon

BEa

Duck Creek

WELL/SAMPLE POINT ~~G61S~~ G60S AW 1/25/24 **Purge Method:** Submersible pump

Date: 1/25/24 Start Time: 11:04 Finish/Sample Time: 12:22

Well Depth (Bottom) From MP: ~~37.85 ft~~ 39.20ft Min. Purge Volume: 1.0 Gal / ~~0~~ mL

Depth to Water From MP: 24.41 ft AW 1/25/24 Total Purge Volume: 1.5 Gal / ~~L~~ mL

Water Column Length: 14.79 ft

Well Water Volume: ~~25.09~~ 8.96 Gal (L) Total Drawdown: 1.58 ft

AW 1/25/24

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:26	25.27	100	6.95	1090	8.46	213	7.84	31
2	11:29	~~26.09~~	100	7.07	1090	8.50	210	7.65	30.9
3	11:32	25.99	100	7.18	1080	8.41	211	7.57	30.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

(5)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 25.99 ft

Comments Check pH if readings are below 6.5 or above 7.5
Removed pump, used portable pump to sample

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT ~~R61L~~ G60L AW 1/25/24 **Purge Method:** Compressor

Date: 1/25/24 Start Time: 12:30 Finish/Sample Time: 1:32

Well Depth (Bottom) From MP: ~~31.40 ft~~ 27.00ft AW 1/25/24 Min. Purge Volume: 1.0 Gal / L/ mL

Depth to Water From MP: 14.04 ft Total Purge Volume: 1.5 Gal / L/ mL

Water Column Length: 12.96 ft

Well Water Volume: 7.85 Gal / L Total Drawdown: 5.88 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	12:36	15.61	100	5.74	948	10.31	60	1.70	400
2	12:39	15.90	100	5.63	932	10.39	67	1.62	344
3	12:42	16.31	100	5.56	915	10.53	68	1.45	230
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☑ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(5)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 19.92 ft

Comments

Sampler's Signature: [signature]

BG

Duck Creek

WELL/SAMPLE POINT G64S **Purge Method:** Compressor

Date: 01/25/2024 Start Time: ~~13:40~~ 13:20 01/25 JB Finish/Sample Time: 14:40

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: _____ Gal / L/ mL

Depth to Water From MP: 24.26 ft Total Purge Volume: 1000 Gal / L/ mL

Water Column Length: 15.24 ft

Well Water Volume: 9.23 Gal / L Total Drawdown: 0.59 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:44	25.12	200	6.82	721	11.71	-44	0.22	47.8
2	13:50	25.12	200	6.82	715	11.63	-44	0.28	34.2
3	13:51	25.12	200	6.82	718	11.59	-44	0.00	25.4
4	13:52	25.12	200	6.82	722	11.52	-43	0.00	18.0
5	13:53	25.12	200	6.82	730	11.51	-42	0.00	19.6
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V, 40mL, H2O4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2O4)

Final DTW: 24.85 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Sampler's Signature: J Bohannon

Duck Creek

WELL/SAMPLE POINT G64L **Purge Method:** Peristaltic

Date: 2/1/2024 Start Time: 1210 Finish/Sample Time: 1319

Well Depth (Bottom) From MP: 30.46 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 21.90 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 8.56 ft

Well Water Volume: 5.18 Gal / (L) Total Drawdown: 0.90 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1220	22.35	100	7.28	878	12.96	127	1.53	0.0
2	1223	22.39	100	7.26	878	12.98	128	1.49	0.0
3	1226	22.42	100	7.23	877	12.99	128	1.41	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(S)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 22.80 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Sampler's Signature:

BG

WELL/SAMPLE POINT X301 Pump House **Purge Method:** bailer

Date: 2/1/2024 Start Time: 1444 Finish/Sample Time: 1456

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1									
	1450	—	—	7.19	3630	7.95	171	8.24	0.0
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
	Rad (P, 2.5L, HNO3)

(3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Comments Sampled as surface water due to not being able to get bailer down pipe

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	30°F partly cloudy wind NE 5mph	Environment:	Snow, grass, mud

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WU683C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF211192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.			—	MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.			—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm			—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%			—	Geotech	3GF1197	Jun-24
ORP	248	mV	±15 mV			—	InSitu	~~3GB927~~	~~Jan-24~~
DO (Zero pt)	0.08	mg/L	±0.1			—	Macron	#000228049	8/26/2025
DO (Saturated)	96.6	%	97-100%			—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	—	—	—	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3G11011
BG
1/23/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)				Time: 1250				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.		—	Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.		—	Geotech	3GA1134	Jan-25
SC 1000	10.10	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time: 1540					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	10.10	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	—	—	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time:					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	1/18/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	duck creek
Weather:	30°-12° cloudy wind NNE 5 MPH	Environment:	Snow

Multiparameter Water Meter	Make: Horriba	Model: U-5000	Serial Number:	PW2GYJD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	246	mV	±15 mV				InSitu	~~3GD937~~	~~Jan-24~~
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3G11011
BG
1/23/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 1252

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.08	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	998	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.06	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin Moore	Date:	18-Jan-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	29°F, 3mph wind, Partly Cloudy	Environment:	Snowy, Landfill

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG		
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 11FF220930SML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.33	s.u.	±0.1 s.u.	F	Yes	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	11.4	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	352	mV	±15 mV	P	No	NA	InSitu	~~3GB927~~	~~Jan-24~~
DO (Zero pt)	~~5.47~~ 0.00	mg/L	±0.1	~~F~~ P	~~Yes~~ No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 11:59			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.62	s.u.	±0.15 s.u.	F	Calibrated: 7.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.97	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.16	s.u.	±0.15 s.u.	F	Calibrated: 9.99	Geotech	3GA1134	Jan-25
SC 1000	987	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 15:42				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.94	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.15	s.u.	±0.1 s.u.	F	Yes	10.01	MSI	022361-01	12/27/2024
SC 1000	993	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	1.7	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: ORP taken at 0°C

Signature: JBohannan Date: 01/18/2024

Exp. 6/24 Lot* 3GA1011 BG 1/23/24

01/18 JB

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	7°F, 15mph winds, mostly sunny	Environment:	Snow Drifts, Pond
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: PW2GYJD3
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: IIFF 2209305ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.61	s.u.	±0.1 s.u.	F	Yes	3.99	MSI	023067-01	3/14/2025
pH 7.00a	6.74	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	14	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1989	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	233	mV	±15 mV	P	No	N/A	InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.03	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.8%	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	No		Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24 lot # 3G11011 BG 1/23/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 10:05

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	None	Geotech	3GB1049	Feb-25
pH 7.00b	6.97	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	993	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: Only one well done

Signature: JBohannan Date: 01/19/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	duck creek
Weather:	16-0° sunny wind WNW 6mph	Environment:	snow

Multiparameter Water Meter	Make: Horriba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3GB1011
BG 1/23/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1030

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1230

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1018	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [signature] Date: 19-Jan-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AL AW	Location:	Duck creek
Weather:	Wind NW 0-1 Temp 5°C sunny	Environment:	grass, snow

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WJ6 83 C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1960	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.22	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.10	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3GI1011
BG 1/23/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 1010

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.00	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.96	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1250

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [signature] Date: 1/19/~~2023~~ 2024

AP 1/11/24

Serial #: 19FF2111192HB

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	37°-32° cloudy/Rain wind 53mph	Environment:	Ice, mud, snow

Multiparameter Water Meter	Make: Aquatroll	Model: V-6000	Serial Number:	AW2GYJD3	
Water Level Meter	Make: WT	Model: Itecon	Serial Number:	IIFF-22093 05ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.92	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1.99	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	240	mV	±15 mV				InSitu	~~3GB927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3G11011
BG
1/24/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0930			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1544			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin M	Date:	23-Jan-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	36°F, Rain, 4mph wind, Cloudy	Environment:	Icedover, Snow covered
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
Water Level Meter	Make: Heron	Model: DipperT	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.84	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	7.8	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	227	mV	±15 mV	P	No	N/A	InSitu	~~3GD027~~	~~Jan-24~~
DO (Zero pt)	0.07	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.3%	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24 lot # 3G11011 BG 1/24/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:24			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.93	s.u.	±0.15 s.u.	P	None	Geotech	3GB1049	Feb-25
pH 7.00b	6.86	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	987	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 13:38			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P	NO	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: ORP Taken at 1.67°C

Signature:	J Bohannan	Date:	01/23/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Andrew Wieteska, Joe Reed	Location:	Duck Creek
Weather:	35°F, Rain, 4mph wind, Cloudy	Environment:	Iced over, Snow covered
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: AGJTK4KG
Water Level Meter	Make: Heron	Model: Series 1900	Serial Number: 19FF211192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	10	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%	P	NO	N/A	Geotech	3GF1197	Jun-24
ORP	248	mV	±15 mV	P	No	N/A	InSitu	~~3GB927~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.5	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot# 3G11011
BG
1/24/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 10:24

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	6.95	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1550

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Joseph R Reed	Date:	1/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	36°F, Drizzle, 6mph wind	Environment:	Snow, Slush, Ice

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF21111 92#B	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.86	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.23	s.u.	±0.1 s.u.	F	Yes	10.01	MSI	022361-01	12/27/2024
SC Zero (DI)	75	µS/cm	0<25 µS/cm	F	Yes	1.7	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	215	mV	±15 mV	P	No		InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1	P	No		Macron	#000228049	8/26/2025
DO (Saturated)	97%	%	97-100%	P	No		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No		Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot# 3GI1021
BG
1/25/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:34			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.04	s.u.	±0.15 s.u.	P	None	Geotech	3GB1049	Feb-25
pH 7.00b	6.84	s.u.	±0.15 s.u.	F	Calibrated → 7.00	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	974	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:38				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	JBohannan	Date:	07/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	37°-40°F cloudy rain Wind NE' 6mph	Environment:	Snow, grass, mud

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PW26YJ03	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	6.87	s.u.	±0.1 s.u.	P	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	Yes	10.01	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	No	—	Geotech	3GF1197	Jun-24
ORP	300	mV	±15 mV	P	Yes	250	InSitu	~~3GD027~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

249 @ 10°C

Exp. 6/24 lot# 3GA1021 BG 1/25/24

ICV (Initial Calibration Verification)

Time: 1031

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.982	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	7.000	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.005	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1509

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	1/24/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JR, LR	Location:	DUCK CREEK
Weather:	35-38° cloudy/rainy	Environment:	Wet snow/rain

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Series 1100	Serial Number:	19FF2111 92HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.4	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	249	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3GI2011
BG 1/25/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 945

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.00	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000		µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1456

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	N	N	MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N	N	MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%	P	N	N	Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P	N	N	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	N	N	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Joseph R Reed Date: 1/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	37°-40° F cloudy Wind NE 4mph	Environment:	snow, grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WVG83C85
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF21111492HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	23	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	243	mV	±15 mV	P	NO		InSitu	~~3GD027~~	~~Jan-24~~
DO (Zero pt)	0.07	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.2	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Exp. 6/24
Lot # 3GF1211
BG
1/26/24

ICV (Initial Calibration Verification)					Time: 0941			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.04	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1503				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	NO	NA	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	NA	MSI	022361-01	12/27/2024
SC 1000	1031	µS/cm	±5%	P	NO	NA	Ricca	4209A12	Aug-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	P	NO	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [signature] Date: 1/25/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed	Location:	Duck Creek (Vistra
Weather:	Cloudy/sprinkles 36-38°F wind 7mph	Environment:	Slushy / wet
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: KL9KJ9HA
Water Level Meter	Make: Solinst	Model: model 101	Serial Number: 33459

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.10	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	245	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24 Lot # 3GI1011 BG 11/26/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1015

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	6.98	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 15

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Joseph R Reed Date: 1/25/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordon Bohannan	Location:	Duck Creek
Weather:	38°F, Cloudy, 5mph wind	Environment:	Slush, snow, ice

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG		
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.65	s.u.	±0.1 s.u.	Fail	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.13	s.u.	±0.1 s.u.	Fail	Yes	7.01	MSI	023051-02	2/21/2025
pH 10.00a	10.18	s.u.	±0.1 s.u.	Fail	Yes	10.01	MSI	022361-01	12/27/2024
SC Zero (DI)	18	µS/cm	0<25 µS/cm	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	Pass	No	N/A	Geotech	3GF1197	Jun-24
ORP	335	mV	±15 mV	Pass	No	N/A	InSitu	~~3GB927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1	Pass	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot ~~A~~
3GB1011
BG
1/26/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 10:15			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.93	s.u.	±0.15 s.u.	P	None	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.13	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:51				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.93	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	JBohannan	Date:	01/25/24

QC

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	37°-32 cloudy, Wind NE 6 mph	Environment:	Snow, mud

Multiparameter Water Meter	Make: Horriba	Model: U-5000	Serial Number:	PW26YJ03	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	243	mV	±15 mV				InSitu	~~SGD927~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3GL2011
BG 1126524

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1014			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1520				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin M	Date:	29-Jan-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannon	Location:	Duck Creek
Weather:	43°-32°F Cloudy, 4 mph wind	Environment:	mud, slush, snow, ice
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.94	s.u.	±0.1 s.u.	Pass	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.75	s.u.	±0.1 s.u.	Fail	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	Pass	No	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	3040	µS/cm	±5%	Pass	No	N/A	Geotech	3GF1197	Jun-24
ORP	248★	mV	±15 mV	Pass	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	Pass	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.5%	%	97-100%	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 09:49

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.87	s.u.	±0.15 s.u.	Pass	None	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	Pass	None	Geotech	2GF113	Jun-24
pH 10.00b	10.04	s.u.	±0.15 s.u.	Pass	None	Geotech	3GA1134	Jan-25
SC 1000	976	µS/cm	±5%	Pass	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 14:35

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	992	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: ★ ORP Taken at 19.05°C

Signature: JBohannon — Date: 01/26/~~2025~~ 2024

JB 1/26

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	32°-46°F cloudy windy 12 mph NE	Environment:	snow, wood, mud

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717 - T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.84	s.u.	±0.1 s.u.	F	YES	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P			InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1030			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.02	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1410				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.		NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.		NO	—	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%		NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L		NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU		NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	1/26/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	LR AM	Location:	DUCK CREEK
Weather:	FOG/CLOUDY	Environment:	SNOW/MUD/GRASSLAND

Multiparameter Water Meter	Make: HORIBA	Model: U5000	Serial Number:	PW264JD3	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FE220930SML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.91	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	254	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU		N	N	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot# 3G1101 1
BG 1/29/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 1030

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.02	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1400

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1010	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	N	N	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	1/26/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	J Oldfield	Location:	Duck Creek
Weather:	Cloudy 35-38°F	Environment:	Foggy / Wet
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: YLAKJ9H4
Water Level Meter	Make: Solinst	Model: Model 101	Serial Number: 33459

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.1	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	243	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.01	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.1	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1015			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	6.99	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	996	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1503				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1000	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Joseph E. Reed	Date:	1/26/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	34°F, 7mph wind, mostly cloudy	Environment:	Fog, Mud, Snow

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: DipperT	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.93	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.14	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.34	s.u.	±0.1 s.u.	F	Yes	10.07	MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1992	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	263★	mV	±15 mV	P	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	97.0	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:47			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.84	s.u.	±0.15 s.u.	F	Cal -> 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.10	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	994	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:49				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	998	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: ★ ORP Taken at ~10°C

Signature:	JBohannan	Date:	01/29/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AF	Location:	Duck creek
Weather:	35°-47° F windy SW 7mph	Environment:	grass, snow, mud, weeds
Multiparameter Water Meter	Make: Horiba	Model: VS000	Serial Number: WV683C85
Water Level Meter	Make: Horn	Model: Dipper 1	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.11	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	9.92	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1940	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.9	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	.8	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0832

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1530

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.8	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [signature] Date: 1/29/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	37° - 42°C Cloud Wind NW 11mph	Environment:	Grass, mud, snow, woods
Multiparameter Water Meter	Make: Hor:ba	Model: U5000	Serial Number: AGJTH4X6
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.53	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	No	-	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	No	-	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	No	-	Geotech	3GF1197	Jun-24
ORP	274	mV	±15 mV	P	Yes	242	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	No	-	Macron	#000228049	8/26/2025
DO (Saturated)	96.6	%	97-100%	P	No	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

242 @ 15°C

ICV (Initial Calibration Verification)					Time: 1012			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	-	Geotech	3GB1049	Feb-25
pH 7.00b	6.92	s.u.	±0.15 s.u.	P	-	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	-	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	-	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1530				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	-	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	No	-	MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	No	-	MSI	022361-01	12/27/2024
SC 1000	1000	µS/cm	±5%	P	No	-	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	-	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	1/30/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	39-32° Cloudy wind WNW 4mph	Environment:	Mud

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WV683C85	
Water Level Meter	Make: Heron	Model: Dipper	Serial Number:	19FT-211119HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.86	s.u.	±0.1 s.u.	P	Y	7.00	MSI	023051-02	2/21/2025
pH 10.00a	9.96	s.u.	±0.1 s.u.	P	N	NA	MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1994	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	252	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.2	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1010			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1541				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Austin Moore	Date:	30-Jan-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	35°-48°F cloudy Wind W at 6mph	Environment:	grass, mud

Multiparameter Water Meter	Make:	YSI/Xylem	Model:	5000	Serial Number:	AGJThuXG
Water Level Meter	Make:	Heron	Model:	DipperT	Serial Number:	3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	–	Geotech	3GF1197	Jun-24
ORP	229	mV	±15 mV	P	NO	–	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

244 @ 15°C

ICV (Initial Calibration Verification)

Time: 0920

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	P	–	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	–	Geotech	2GF113	Jun-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	991	µS/cm	±5%	P	–	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1523

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC 1000	992	µS/cm	±5%	P	NO	–	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [signature] Date: 1/31/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	41°-58° Partly cloudy Wind SW 6mph	Environment:	mud, grass
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Interon	Model: D-Tape	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	-	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	-	MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	-	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	NO	-	Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV	P	NO	-	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.03	mg/L	±0.1	P	NO	-	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

242 @ 15°C

ICV (Initial Calibration Verification)					Time: 0852			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	-	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	-	Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.	P	-	Geotech	3GA1134	Jan-25
SC 1000	984	µS/cm	±5%	P	-	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1500				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	-	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	NO	-	MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	-	MSI	022361-01	12/27/2024
SC 1000	1010	µS/cm	±5%	P	NO	-	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	-	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	2/1/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	30-51°F Wind Sunny NE 7mph	Environment:	Woods, grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: A6JTKHX6
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	100.0	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification)					Time: 0951			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.07	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.04	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	967	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1530				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	999	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	2/5/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	Fog 34°-50°C wind SE3mph	Environment:	grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW26VJD3
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-7

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.95	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	19	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	227	mV	±15 mV	P	YES	249	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	100.0	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

249 @ 10°C

ICV (Initial Calibration Verification) Time: 1021

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.97	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1420

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.10	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	2/6/2024

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

February 28, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HB01992

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HB01992-01
Name: G54S
Matrix: Ground Water - Grab

Sampled: 02/06/24 13:28
Received: 02/06/24 16:00

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
pH, Field Measured	6.97	pH Units		02/06/24 13:28	1		02/06/24 13:28	FIELD	Field*

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Certified by: Diane Billings, Project Manager

Duck Creek

WELL/SAMPLE POINT G54S **Purge Method:** Bladder

Date: 2/6/2024 Start Time: 1250 Finish/Sample Time: 1328

Well Depth (Bottom) From MP: 51.26 ft Min. Purge Volume: 3000 Gal / L (mL)

Depth to Water From MP: 24.87 ft Total Purge Volume: 3000 Gal / L (mL)

Water Column Length: ft

Well Water Volume: Gal / L Total Drawdown: ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1320	25.18	100	6.98		9.48			
2	1323	25.18	100	6.97		9.53			
3	1326	25.18	100	6.97		9.60			
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign		
Casing locked/secure		
Well cap fits securely.		
Good seal/drainage		
Well has weep holes		

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
	General (P,1000mL)
	Rad (P,2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 25.15 ft

Comments **Check pH if readings are below 6.5**

Sampler's Signature: [signature]

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Andrew W	Location:	Duck Creek
Weather:	foggy 39°-50° C SE 3 mph	Environment:	Grassy Field
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTR4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	22	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P	NO		InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 10:21

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 14:20

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	1.9	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Andrew Wetherington — Date: 2/6/24

H1301992

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd	Copy To:	Sam Davies: samantha.davies@vistracorp.com	Company Name:	Vistra Corp
	Canton, IL 61520		Daryl Johnson: Robert.Johnson@vistracorp.com	Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference	
Phone:	(217) 753-8911 Fax:	Project Name:		Project Manager	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test ↓	DC-257-203	DC-845-203	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G54S			2/6/24	1328																	
2	G65S			2/6/24	1245																	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1R Rev 0		2/6/24	1600							
					2/6/24	1600	7.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 02/06/24

Appendix A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK GYPSUM MANAGEMENT FACILITY POND
DC-257-203

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

June 11, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HD03379

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HD03933

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HD04153

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HD04439

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HD05160

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HE01704

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
YES	Case narrative provided

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Case Narrative

There is no access point for X301 to obtain the DTW. Several wells needed to be resampled for TDS: G02L, G15L, G52S, G54L, G55L, G71L, G72L, ORO3D. G07L was resampled for SIM VOCs. The following wells were resampled for nitrate: G02L, G15L, G52S, G54L, G55L. In accordance with the EPA's stance on Reactive CN and Reactive S test methods, the parameters have been analyzed as total cyanide and total sulfide. We do not have the ability to report all field analyses for L103 but have reported what we have.

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ANALYTICAL RESULTS

Sample: HD03379-03
Name: G51S
Matrix: Ground Water - Grab

Sampled: 04/17/24 15:20
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	13	mg/L		04/18/24 12:53	10	10	04/18/24 12:53	JSM	EPA 300.0 REV 2.1
Sulfate	59	mg/L		04/18/24 12:53	10	10	04/18/24 12:53	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.3	Feet		04/17/24 15:20	1		04/17/24 15:20	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		04/17/24 15:20	1		04/17/24 15:20	FIELD	Field*
Oxidation Reduction Potential	-89.0	mV		04/17/24 15:20	1	-500	04/17/24 15:20	FIELD	Field*
pH, Field Measured	6.89	pH Units		04/17/24 15:20	1		04/17/24 15:20	FIELD	Field*
Specific Conductance, Field Measured	753.0	umhos/cm		04/17/24 15:20	1		04/17/24 15:20	FIELD	Field*
Temperature, Field Measured	13.9	°C		04/17/24 15:20	1		04/17/24 15:20	FIELD	Field*
Turbidity, Field Measured	242	NTU		04/17/24 15:20	1	0.00	04/17/24 15:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		04/25/24 15:18	1	0.250	04/25/24 15:18	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		04/22/24 08:48	1	17	04/22/24 10:15	OGS	SM 2540C
Total Metals - PIA									
Boron	13	ug/L		04/18/24 07:53	5	10	04/23/24 10:36	TJJ	EPA 6020A
Calcium	100	mg/L		04/18/24 07:53	5	0.20	04/19/24 18:06	TJJ	EPA 6020A
Magnesium	45	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:06	TJJ	EPA 6020A
Potassium	0.77	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:06	TJJ	EPA 6020A
Sodium	7.5	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:06	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03933-02
Name: G02S
Matrix: Ground Water - Grab

Sampled: 04/22/24 15:23
Received: 04/22/24 16:42
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.4	mg/L		05/01/24 12:34	1	1.0	05/01/24 12:34	JSM	EPA 300.0 REV 2.1
Fluoride	0.295	mg/L		05/01/24 12:34	1	0.250	05/01/24 12:34	JSM	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		05/01/24 12:34	1	1.0	05/01/24 12:34	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	7.32	Feet		04/22/24 15:23	1		04/22/24 15:23	FIELD	Field*
Dissolved oxygen, Field	0.52	mg/L		04/22/24 15:23	1		04/22/24 15:23	FIELD	Field*
Oxidation Reduction Potential	-98.0	mV		04/22/24 15:23	1	-500	04/22/24 15:23	FIELD	Field*
pH, Field Measured	6.68	pH Units		04/22/24 15:23	1		04/22/24 15:23	FIELD	Field*
Specific Conductance, Field Measured	683.0	umhos/cm		04/22/24 15:23	1		04/22/24 15:23	FIELD	Field*
Temperature, Field Measured	18.1	°C		04/22/24 15:23	1		04/22/24 15:23	FIELD	Field*
Turbidity, Field Measured	101	NTU		04/22/24 15:23	1	0.00	04/22/24 15:23	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	400	mg/L		04/24/24 09:59	1	17	04/24/24 11:20	OGS	SM 2540C
Total Metals - PIA									
Boron	99	ug/L		04/23/24 09:01	5	10	04/30/24 12:34	TJJ	EPA 6020A
Calcium	97	mg/L		04/23/24 09:01	5	0.20	04/29/24 12:57	TJJ	EPA 6020A
Magnesium	38	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:57	TJJ	EPA 6020A
Potassium	0.74	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:57	TJJ	EPA 6020A
Sodium	15	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:57	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03933-08
Name: G64L
Matrix: Ground Water - Grab

Sampled: 04/22/24 14:55
Received: 04/22/24 16:42
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.3	mg/L		04/23/24 14:10	1	1.0	04/23/24 14:10	JSM	EPA 300.0 REV 2.1
Fluoride	0.286	mg/L		04/23/24 14:10	1	0.250	04/23/24 14:10	JSM	EPA 300.0 REV 2.1
Sulfate	120	mg/L		04/24/24 21:26	25	25	04/24/24 21:26	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.71	Feet		04/22/24 14:55	1		04/22/24 14:55	FIELD	Field*
Dissolved oxygen, Field	3.8	mg/L		04/22/24 14:55	1		04/22/24 14:55	FIELD	Field*
Oxidation Reduction Potential	117	mV		04/22/24 14:55	1	-500	04/22/24 14:55	FIELD	Field*
pH, Field Measured	6.85	pH Units		04/22/24 14:55	1		04/22/24 14:55	FIELD	Field*
Specific Conductance, Field Measured	1120	umhos/cm		04/22/24 14:55	1		04/22/24 14:55	FIELD	Field*
Temperature, Field Measured	16.4	°C		04/22/24 14:55	1		04/22/24 14:55	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		04/22/24 14:55	1	0.00	04/22/24 14:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	690	mg/L	B2	04/25/24 08:33	1	17	04/25/24 10:41	OGS	SM 2540C
Total Metals - PIA									
Boron	21	ug/L		04/23/24 09:01	5	10	04/30/24 12:46	TJJ	EPA 6020A
Calcium	130	mg/L		04/23/24 09:01	5	0.20	04/29/24 13:08	TJJ	EPA 6020A
Magnesium	79	mg/L		04/23/24 09:01	5	0.10	04/29/24 13:08	TJJ	EPA 6020A
Potassium	0.19	mg/L		04/23/24 09:01	5	0.10	04/29/24 13:08	TJJ	EPA 6020A
Sodium	13	mg/L		04/23/24 09:01	5	0.10	04/29/24 13:08	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04153-05
Name: G50S
Matrix: Ground Water - Grab

Sampled: 04/23/24 12:35
Received: 04/23/24 16:04
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	12	mg/L	Q4	04/24/24 12:58	5	5.0	04/24/24 12:58	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/24/24 12:40	1	0.250	04/24/24 12:40	JSM	EPA 300.0 REV 2.1
Sulfate	44	mg/L	Q4	04/24/24 12:58	5	5.0	04/24/24 12:58	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.55	Feet		04/23/24 12:35	1		04/23/24 12:35	FIELD	Field*
Dissolved oxygen, Field	2.9	mg/L		04/23/24 12:35	1		04/23/24 12:35	FIELD	Field*
Oxidation Reduction Potential	-8.00	mV		04/23/24 12:35	1	-500	04/23/24 12:35	FIELD	Field*
pH, Field Measured	7.09	pH Units		04/23/24 12:35	1		04/23/24 12:35	FIELD	Field*
Specific Conductance, Field Measured	714.0	umhos/cm		04/23/24 12:35	1		04/23/24 12:35	FIELD	Field*
Temperature, Field Measured	11.8	°C		04/23/24 12:35	1		04/23/24 12:35	FIELD	Field*
Turbidity, Field Measured	190	NTU		04/23/24 12:35	1	0.00	04/23/24 12:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	340	mg/L		04/29/24 12:40	1	17	04/29/24 13:38	OGS	SM 2540C
Total Metals - PIA									
Boron	15	ug/L		04/25/24 07:03	5	10	04/29/24 13:58	TJJ	EPA 6020A
Calcium	89	mg/L		04/25/24 07:03	5	0.20	04/29/24 13:58	TJJ	EPA 6020A
Magnesium	39	mg/L		04/25/24 07:03	5	0.10	04/29/24 13:58	TJJ	EPA 6020A
Potassium	0.40	mg/L		04/25/24 07:03	5	0.10	04/29/24 13:58	TJJ	EPA 6020A
Sodium	9.5	mg/L		04/25/24 07:03	5	0.10	04/30/24 15:29	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04153-07
Name: G54L
Matrix: Ground Water - Grab

Sampled: 04/23/24 11:55
Received: 04/23/24 16:04
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	47	mg/L		04/24/24 15:27	25	25	04/24/24 15:27	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/24/24 14:53	1	0.250	04/24/24 14:53	JSM	EPA 300.0 REV 2.1
Sulfate	120	mg/L		04/24/24 15:27	25	25	04/24/24 15:27	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.26	Feet		04/23/24 11:55	1		04/23/24 11:55	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		04/23/24 11:55	1		04/23/24 11:55	FIELD	Field*
Oxidation Reduction Potential	-51.0	mV		04/23/24 11:55	1	-500	04/23/24 11:55	FIELD	Field*
pH, Field Measured	6.10	pH Units		04/23/24 11:55	1		04/23/24 11:55	FIELD	Field*
Specific Conductance, Field Measured	1630	umhos/cm		04/23/24 11:55	1		04/23/24 11:55	FIELD	Field*
Temperature, Field Measured	12.2	°C		04/23/24 11:55	1		04/23/24 11:55	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		04/23/24 11:55	1	0.00	04/23/24 11:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	710	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Total Metals - PIA									
Boron	< 10	ug/L		04/25/24 07:03	5	10	04/29/24 14:06	TJJ	EPA 6020A
Calcium	200	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:06	TJJ	EPA 6020A
Magnesium	110	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:06	TJJ	EPA 6020A
Potassium	0.55	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:06	TJJ	EPA 6020A
Sodium	26	mg/L		04/25/24 07:03	5	0.10	04/30/24 15:37	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04439-01
Name: G54S
Matrix: Ground Water - Grab

Sampled: 04/24/24 11:49
Received: 04/24/24 16:48
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.8	mg/L		04/25/24 11:22	1	1.0	04/25/24 11:22	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/25/24 11:22	1	0.250	04/25/24 11:22	JSM	EPA 300.0 REV 2.1
Sulfate	36	mg/L	Q4	04/25/24 11:39	5	5.0	04/25/24 11:39	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.72	Feet		04/24/24 11:49	1		04/24/24 11:49	FIELD	Field*
Dissolved oxygen, Field	9.5	mg/L		04/24/24 11:49	1		04/24/24 11:49	FIELD	Field*
Oxidation Reduction Potential	-64.0	mV		04/24/24 11:49	1	-500	04/24/24 11:49	FIELD	Field*
Specific Conductance, Field Measured	1040	umhos/cm		04/24/24 11:49	1		04/24/24 11:49	FIELD	Field*
Temperature, Field Measured	13.7	°C		04/24/24 11:49	1		04/24/24 11:49	FIELD	Field*
Turbidity, Field Measured	12.8	NTU		04/24/24 11:49	1	0.00	04/24/24 11:49	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	500	mg/L		04/26/24 10:48	1	17	04/26/24 13:41	OGS	SM 2540C
Total Metals - PIA									
Boron	37	ug/L		04/25/24 07:03	5	10	04/29/24 14:33	TJJ	EPA 6020A
Calcium	130	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:33	TJJ	EPA 6020A
Magnesium	54	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:33	TJJ	EPA 6020A
Potassium	0.66	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:33	TJJ	EPA 6020A
Sodium	12	mg/L		04/25/24 07:03	5	0.10	04/30/24 16:04	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04439-02
Name: G57S
Matrix: Ground Water - Grab

Sampled: 04/24/24 13:00
Received: 04/24/24 16:48
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L		04/25/24 13:38	5	5.0	04/25/24 13:38	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/25/24 12:47	1	0.250	04/25/24 12:47	JSM	EPA 300.0 REV 2.1
Sulfate	49	mg/L		04/25/24 13:55	10	10	04/25/24 13:55	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.45	Feet		04/24/24 13:00	1		04/24/24 13:00	FIELD	Field*
Dissolved oxygen, Field	3.0	mg/L		04/24/24 13:00	1		04/24/24 13:00	FIELD	Field*
Oxidation Reduction Potential	78.0	mV		04/24/24 13:00	1	-500	04/24/24 13:00	FIELD	Field*
pH, Field Measured	6.68	pH Units		04/24/24 13:00	1		04/24/24 13:00	FIELD	Field*
Specific Conductance, Field Measured	1360	umhos/cm		04/24/24 13:00	1		04/24/24 13:00	FIELD	Field*
Temperature, Field Measured	14.2	°C		04/24/24 13:00	1		04/24/24 13:00	FIELD	Field*
Turbidity, Field Measured	16.3	NTU		04/24/24 13:00	1	0.00	04/24/24 13:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	780	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	800	mg/L		04/26/24 10:48	1	17	04/26/24 13:41	OGS	SM 2540C
Total Metals - PIA									
Boron	13	ug/L		04/25/24 07:03	5	10	04/29/24 14:37	TJJ	EPA 6020A
Calcium	170	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:37	TJJ	EPA 6020A
Magnesium	110	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:37	TJJ	EPA 6020A
Potassium	0.36	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:37	TJJ	EPA 6020A
Sodium	14	mg/L		04/25/24 07:03	5	0.10	04/30/24 16:08	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04439-04
Name: G64S
Matrix: Ground Water - Grab

Sampled: 04/24/24 11:30
Received: 04/24/24 16:48
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.5	mg/L		04/25/24 14:32	1	1.0	04/25/24 14:32	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/25/24 14:32	1	0.250	04/25/24 14:32	JSM	EPA 300.0 REV 2.1
Sulfate	21	mg/L		04/25/24 14:49	5	5.0	04/25/24 14:49	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.91	Feet		04/24/24 11:30	1		04/24/24 11:30	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		04/24/24 11:30	1		04/24/24 11:30	FIELD	Field*
Oxidation Reduction Potential	193	mV		04/24/24 11:30	1	-500	04/24/24 11:30	FIELD	Field*
pH, Field Measured	6.66	pH Units		04/24/24 11:30	1		04/24/24 11:30	FIELD	Field*
Specific Conductance, Field Measured	904.0	umhos/cm		04/24/24 11:30	1		04/24/24 11:30	FIELD	Field*
Temperature, Field Measured	13.4	°C		04/24/24 11:30	1		04/24/24 11:30	FIELD	Field*
Turbidity, Field Measured	137	NTU		04/24/24 11:30	1	0.00	04/24/24 11:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	420	mg/L		04/26/24 10:48	1	17	04/26/24 13:41	OGS	SM 2540C
Total Metals - PIA									
Boron	18	ug/L		04/25/24 07:03	5	10	04/29/24 14:45	TJJ	EPA 6020A
Calcium	98	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:45	TJJ	EPA 6020A
Magnesium	48	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:45	TJJ	EPA 6020A
Potassium	0.60	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:45	TJJ	EPA 6020A
Sodium	15	mg/L		04/25/24 07:03	5	0.10	04/30/24 16:15	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04439-05
Name: G60L
Matrix: Ground Water - Grab

Sampled: 04/24/24 11:40
Received: 04/24/24 16:48
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.1	mg/L		04/25/24 14:12	1	1.0	04/25/24 14:12	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/25/24 14:12	1	0.250	04/25/24 14:12	JSM	EPA 300.0 REV 2.1
Sulfate	180	mg/L		04/25/24 15:04	25	25	04/25/24 15:04	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.51	Feet		04/24/24 11:40	1		04/24/24 11:40	FIELD	Field*
Dissolved oxygen, Field	0.90	mg/L		04/24/24 11:40	1		04/24/24 11:40	FIELD	Field*
Oxidation Reduction Potential	38.4	mV		04/24/24 11:40	1	-500	04/24/24 11:40	FIELD	Field*
pH, Field Measured	6.18	pH Units		04/24/24 11:40	1		04/24/24 11:40	FIELD	Field*
Specific Conductance, Field Measured	819.0	umhos/cm		04/24/24 11:40	1		04/24/24 11:40	FIELD	Field*
Temperature, Field Measured	16.4	°C		04/24/24 11:40	1		04/24/24 11:40	FIELD	Field*
Turbidity, Field Measured	215	NTU		04/24/24 11:40	1	0.00	04/24/24 11:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	280	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	500	mg/L		04/26/24 10:48	1	17	04/26/24 13:41	OGS	SM 2540C
Total Metals - PIA									
Boron	23	ug/L		04/25/24 07:03	5	10	04/29/24 14:48	TJJ	EPA 6020A
Calcium	97	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:48	TJJ	EPA 6020A
Magnesium	42	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:48	TJJ	EPA 6020A
Potassium	0.58	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:48	TJJ	EPA 6020A
Sodium	38	mg/L		04/25/24 07:03	5	0.10	04/30/24 16:19	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04439-06
Name: G60S
Matrix: Ground Water - Grab

Sampled: 04/24/24 13:20
Received: 04/24/24 16:48
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.6	mg/L		04/25/24 15:21	1	1.0	04/25/24 15:21	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/25/24 15:21	1	0.250	04/25/24 15:21	JSM	EPA 300.0 REV 2.1
Sulfate	79	mg/L		04/25/24 15:38	10	10	04/25/24 15:38	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.8	Feet		04/24/24 13:20	1		04/24/24 13:20	FIELD	Field*
Dissolved oxygen, Field	0.80	mg/L		04/24/24 13:20	1		04/24/24 13:20	FIELD	Field*
Oxidation Reduction Potential	-40.9	mV		04/24/24 13:20	1	-500	04/24/24 13:20	FIELD	Field*
pH, Field Measured	6.70	pH Units		04/24/24 13:20	1		04/24/24 13:20	FIELD	Field*
Specific Conductance, Field Measured	1021	umhos/cm		04/24/24 13:20	1		04/24/24 13:20	FIELD	Field*
Temperature, Field Measured	17.6	°C		04/24/24 13:20	1		04/24/24 13:20	FIELD	Field*
Turbidity, Field Measured	1250	NTU		04/24/24 13:20	1	0.00	04/24/24 13:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	490	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	560	mg/L		04/26/24 10:48	1	17	04/26/24 13:41	OGS	SM 2540C
Total Metals - PIA									
Boron	25	ug/L		04/25/24 07:03	5	10	04/29/24 14:52	TJJ	EPA 6020A
Calcium	200	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:52	TJJ	EPA 6020A
Magnesium	93	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:52	TJJ	EPA 6020A
Potassium	3.2	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:52	TJJ	EPA 6020A
Sodium	13	mg/L		04/25/24 07:03	5	0.10	04/30/24 16:23	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD04439-15
Name: X301
Matrix: Ground Water - Grab

Sampled: 04/24/24 15:33
Received: 04/24/24 16:48
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1300	mg/L		05/07/24 01:14	500	500	05/07/24 01:14	JSM	EPA 300.0 REV 2.1
Sulfate	1900	mg/L		05/07/24 01:14	500	500	05/07/24 01:14	JSM	EPA 300.0 REV 2.1
Field - PIA									
Dissolved oxygen, Field	3.6	mg/L		04/24/24 15:33	1		04/24/24 15:33	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	460	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/30/24 08:57	1	10	04/30/24 08:57	TMS	SM 2320B 1997*
Total Metals - PIA									
Calcium	490	mg/L		05/02/24 09:22	5	0.20	05/03/24 13:05	TJJ	EPA 6020A
Magnesium	500	mg/L		05/02/24 09:22	5	0.10	05/03/24 13:05	TJJ	EPA 6020A
Potassium	12	mg/L		05/02/24 09:22	5	0.10	05/03/24 13:05	TJJ	EPA 6020A
Sodium	99	mg/L		05/02/24 09:22	5	0.10	05/03/24 13:05	TJJ	EPA 6020A

Sample: HD05160-04
Name: G54L
Matrix: Ground Water - Grab

Sampled: 04/30/24 11:19
Received: 04/30/24 16:22
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1000	mg/L	B2	05/03/24 13:15	1	26	05/03/24 14:57	CGL	SM 2540C

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B430821 - SW 3015 - EPA 6020A									
Blank (B430821-BLK1)				Prepared: 04/18/24 Analyzed: 04/19/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	0.160	mg/L	Ba						
LCS (B430821-BS1)				Prepared: 04/18/24 Analyzed: 04/19/24					
Boron	573	ug/L		555.6		103	80-120		
Calcium	5.94	mg/L		5.556		107	80-120		
Magnesium	6.31	mg/L		5.556		114	80-120		
Potassium	6.04	mg/L		5.556		109	80-120		
Sodium	6.35	mg/L		5.556		114	80-120		
Batch B431005 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431005-CCB1)				Prepared & Analyzed: 04/18/24					
Chloride	0.0870	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431005-CCV1)				Prepared & Analyzed: 04/18/24					
Chloride	4.68	mg/L		5.000		94	90-110		
Sulfate	4.80	mg/L		5.000		96	90-110		
Batch B431063 - No Prep - SM 2540C									
Blank (B431063-BLK1)				Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431063-BS1)				Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	957	mg/L		1000		96	84.9-109		
Duplicate (B431063-DUP1)	**Sample: HD03379-06**			Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	810	mg/L			825			2	5
Duplicate (B431063-DUP2)	**Sample: HD03379-07**			Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	2110	mg/L			2090			1	5
Batch B431184 - SW 3015 - EPA 6020A									
Blank (B431184-BLK1)				Prepared: 04/23/24 Analyzed: 04/30/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B431184-BS1)				Prepared: 04/23/24 Analyzed: 04/30/24					
Boron	494	ug/L		555.6		89	80-120		
Calcium	5.94	mg/L		5.556		107	80-120		
Magnesium	5.99	mg/L		5.556		108	80-120		
Potassium	5.91	mg/L		5.556		106	80-120		
Sodium	6.07	mg/L		5.556		109	80-120		
Batch B431222 - No Prep - SM 2320B 1997									

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B431222-BLK1)				Prepared & Analyzed: 04/23/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Blank (B431222-BLK2)				Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Blank (B431222-BLK3)				Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Duplicate (B431222-DUP3)	**Sample: HD03379-01**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	462	mg/L			438			6	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B431222-DUP4)	**Sample: HD03379-11**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	588	mg/L			600			2	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B431300 - No Prep - SM 2540C									
Blank (B431300-BLK1)				Prepared & Analyzed: 04/24/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431300-BS1)				Prepared & Analyzed: 04/24/24					
Solids - total dissolved solids (TDS)	957	mg/L		1000		96	84.9-109		
Duplicate (B431300-DUP2)	**Sample: HD03933-02**			Prepared & Analyzed: 04/24/24					
Solids - total dissolved solids (TDS)	380	mg/L			400			5	5
Batch B431350 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431350-CCB1)				Prepared & Analyzed: 04/23/24					
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B431350-CCV1)				Prepared & Analyzed: 04/23/24					
Chloride	4.96	mg/L		5.000		99	90-110		
Fluoride	5.29	mg/L		5.000		106	90-110		
Batch B431381 - SW 3015 - EPA 6020A									
Blank (B431381-BLK1)				Prepared: 04/25/24 Analyzed: 04/29/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B431381-BS1)				Prepared: 04/25/24 Analyzed: 04/29/24					
Boron	551	ug/L		555.6		99	80-120		
Calcium	5.96	mg/L		5.556		107	80-120		
Magnesium	6.55	mg/L		5.556		118	80-120		
Potassium	5.94	mg/L		5.556		107	80-120		
Sodium	6.60	mg/L		5.556		119	80-120		
Matrix Spike (B431381-MS1)	**Sample: HD04153-04**			Prepared: 04/25/24 Analyzed: 04/29/24					
Boron	576	ug/L		555.6	27.2	99	75-125		
Calcium	118	mg/L		5.556	113	79	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B431381-MS1)	**Sample: HD04153-04**			Prepared: 04/25/24 Analyzed: 04/29/24					
Magnesium	59.9	mg/L		5.556	55.3	81	75-125		
Potassium	6.05	mg/L		5.556	0.225	105	75-125		
Sodium	17.0	mg/L		5.556	10.7	114	75-125		
Matrix Spike Dup (B431381-MSD1)	**Sample: HD04153-04**			Prepared: 04/25/24 Analyzed: 04/29/24					
Boron	584	ug/L		555.6	27.2	100	75-125	1	20
Calcium	119	mg/L		5.556	113	108	75-125	1	20
Magnesium	60.8	mg/L		5.556	55.3	99	75-125	2	20
Potassium	6.08	mg/L		5.556	0.225	105	75-125	0.6	20
Sodium	16.9	mg/L		5.556	10.7	111	75-125	0.8	20
Batch B431392 - No Prep - SM 2540C									
Blank (B431392-BLK1)				Prepared & Analyzed: 04/25/24					
Solids - total dissolved solids (TDS)	50.0	mg/L	Bc						
LCS (B431392-BS1)				Prepared & Analyzed: 04/25/24					
Solids - total dissolved solids (TDS)	1010	mg/L		1000		101	84.9-109		
Duplicate (B431392-DUP1)	**Sample: HD04153-06**			Prepared & Analyzed: 04/25/24					
Solids - total dissolved solids (TDS)	845	mg/L			810			4	5
Batch B431429 - No Prep - SM 4500F C 1997									
Calibration Blank (B431429-CCB1)				Prepared & Analyzed: 04/25/24					
Fluoride	0.0220	mg/L							
Calibration Blank (B431429-CCB2)				Prepared & Analyzed: 04/25/24					
Fluoride	0.0240	mg/L							
Calibration Check (B431429-CCV1)				Prepared & Analyzed: 04/25/24					
Fluoride	0.680	mg/L		0.7000		97	90-110		
Calibration Check (B431429-CCV2)				Prepared & Analyzed: 04/25/24					
Fluoride	0.710	mg/L		0.7000		101	90-110		
Batch B431479 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431479-CCB1)				Prepared & Analyzed: 04/24/24					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431479-CCV1)				Prepared & Analyzed: 04/24/24					
Sulfate	4.84	mg/L		5.000		97	90-110		
Fluoride	4.96	mg/L		5.000		99	90-110		
Chloride	4.77	mg/L		5.000		95	90-110		
Matrix Spike (B431479-MS1)	**Sample: HD04153-04**			Prepared & Analyzed: 04/24/24					
Sulfate	1.00E9	mg/L	Q4	1.500	66.8	NR	80-120		
Matrix Spike (B431479-MS2)	**Sample: HD04153-05**			Prepared & Analyzed: 04/24/24					
Fluoride	1.63	mg/L		1.500	0.210	95	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	43.6	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	12	NR	80-120		
Matrix Spike Dup (B431479-MSD1)	**Sample: HD04153-04**			Prepared & Analyzed: 04/24/24					
Chloride	9.4	mg/L		1.500	7.7	115	80-120	1	20
Sulfate	1.00E9	mg/L	Q4	1.500	66.8	NR	80-120	0	20
Matrix Spike Dup (B431479-MSD2)	**Sample: HD04153-05**			Prepared & Analyzed: 04/24/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B431479-MSD2)	**Sample: HD04153-05**			Prepared & Analyzed: 04/24/24					
Chloride	1.0E9	mg/L	Q4	1.500	12	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	43.6	NR	80-120	0	20
Fluoride	1.64	mg/L		1.500	0.210	95	80-120	0.5	20
Batch B431481 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431481-CCB1)				Prepared & Analyzed: 04/24/24					
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B431481-CCV1)				Prepared & Analyzed: 04/24/24					
Fluoride	5.20	mg/L		5.000		104	90-110		
Sulfate	5.03	mg/L		5.000		101	90-110		
Chloride	4.98	mg/L		5.000		100	90-110		
Batch B431530 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431530-CCB1)				Prepared & Analyzed: 04/25/24					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431530-CCV1)				Prepared & Analyzed: 04/25/24					
Chloride	5.14	mg/L		5.000		103	90-110		
Fluoride	5.38	mg/L		5.000		108	90-110		
Sulfate	5.22	mg/L		5.000		104	90-110		
Matrix Spike (B431530-MS1)	**Sample: HD04439-01**			Prepared & Analyzed: 04/25/24					
Fluoride	1.83	mg/L		1.500	0.205	108	80-120		
Chloride	7.5	mg/L		1.500	5.8	113	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	35.8	NR	80-120		
Matrix Spike Dup (B431530-MSD1)	**Sample: HD04439-01**			Prepared & Analyzed: 04/25/24					
Chloride	7.5	mg/L		1.500	5.8	116	80-120	0.4	20
Sulfate	1.00E9	mg/L	Q4	1.500	35.8	NR	80-120	0	20
Fluoride	1.81	mg/L		1.500	0.205	107	80-120	1	20
Batch B431533 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431533-CCB1)				Prepared & Analyzed: 04/25/24					
Chloride	0.118	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431533-CCV1)				Prepared & Analyzed: 04/25/24					
Fluoride	5.24	mg/L		5.000		105	90-110		
Sulfate	4.99	mg/L		5.000		100	90-110		
Chloride	4.93	mg/L		5.000		99	90-110		
Batch B431536 - No Prep - SM 2540C									
Blank (B431536-BLK1)				Prepared & Analyzed: 04/26/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431536-BS1)				Prepared & Analyzed: 04/26/24					
Solids - total dissolved solids (TDS)	937	mg/L		1000		94	84.9-109		

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B431564 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431564-CCB1)				Prepared & Analyzed: 04/25/24					
Chloride	0.0764	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431564-CCV1)				Prepared & Analyzed: 04/25/24					
Sulfate	4.90	mg/L		5.000		98	90-110		
Chloride	4.82	mg/L		5.000		96	90-110		
Matrix Spike (B431564-MS1)	**Sample: HD04439-01**			Prepared & Analyzed: 04/26/24					
Sulfate	1.00E9	mg/L	Q4	1.500	35.8	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	5.8	NR	80-120		
Matrix Spike Dup (B431564-MSD1)	**Sample: HD04439-01**			Prepared & Analyzed: 04/26/24					
Sulfate	1.00E9	mg/L	Q4	1.500	35.8	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	5.8	NR	80-120	0	20
Batch B431667 - No Prep - SM 2540C									
Blank (B431667-BLK1)				Prepared & Analyzed: 04/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431667-BS1)				Prepared & Analyzed: 04/29/24					
Solids - total dissolved solids (TDS)	920	mg/L		1000		92	84.9-109		
Duplicate (B431667-DUP1)	**Sample: HD04439-14**			Prepared & Analyzed: 04/29/24					
Solids - total dissolved solids (TDS)	645	mg/L			650			0.8	5
Batch B431801 - No Prep - SM 2320B 1997									
Duplicate (B431801-DUP1)	**Sample: HD03933-01**			Prepared & Analyzed: 04/30/24					
Alkalinity - bicarbonate as CaCO3	550	mg/L			538			2	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B431801-DUP2)	**Sample: HD04153-01**			Prepared & Analyzed: 04/30/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	462	mg/L			475			3	10
Duplicate (B431801-DUP6)	**Sample: HD04439-06**			Prepared & Analyzed: 04/30/24					
Alkalinity - bicarbonate as CaCO3	475	mg/L			488			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B431970 - SW 3015 - EPA 6020A									
Blank (B431970-BLK1)				Prepared: 05/02/24 Analyzed: 05/03/24					
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	0.146	mg/L	B						
LCS (B431970-BS1)				Prepared: 05/02/24 Analyzed: 05/03/24					
Calcium	6.05	mg/L		5.556		109	80-120		
Magnesium	6.17	mg/L		5.556		111	80-120		
Potassium	5.78	mg/L		5.556		104	80-120		
Sodium	6.19	mg/L		5.556		111	80-120		
Batch B432047 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B432047-CCB1)				Prepared & Analyzed: 05/01/24					

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B432047-CCB1)				Prepared & Analyzed: 05/01/24					
Chloride	0.888	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B432047-CCV1)				Prepared & Analyzed: 05/01/24					
Sulfate	4.75	mg/L		5.000		95	90-110		
Fluoride	4.95	mg/L		5.000		99	90-110		
Chloride	4.75	mg/L		5.000		95	90-110		
Matrix Spike (B432047-MS3)	**Sample: HD03933-02**			Prepared & Analyzed: 05/01/24					
Chloride	3.9	mg/L		1.500	2.4	101	80-120		
Fluoride	1.79	mg/L		1.500	0.295	100	80-120		
Sulfate	1.64	mg/L		1.500	ND	110	80-120		
Matrix Spike Dup (B432047-MSD3)	**Sample: HD03933-02**			Prepared & Analyzed: 05/01/24					
Fluoride	1.81	mg/L		1.500	0.295	101	80-120	1	20
Sulfate	1.68	mg/L		1.500	ND	112	80-120	2	20
Chloride	3.9	mg/L		1.500	2.4	102	80-120	0.07	20
Batch B432145 - No Prep - SM 2540C									
Blank (B432145-BLK1)				Prepared & Analyzed: 05/03/24					
Solids - total dissolved solids (TDS)	30.0	mg/L	Bb						
LCS (B432145-BS1)				Prepared & Analyzed: 05/03/24					
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.9-109		
Duplicate (B432145-DUP1)	**Sample: HD05160-08**			Prepared & Analyzed: 05/03/24					
Solids - total dissolved solids (TDS)	4260	mg/L			4320			1	5
Duplicate (B432145-DUP2)	**Sample: HD05160-10**			Prepared & Analyzed: 05/03/24					
Solids - total dissolved solids (TDS)	36.7	mg/L			23.3			44	5
Batch B432381 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B432381-CCB1)				Prepared & Analyzed: 05/06/24					
Sulfate	0.00	mg/L							
Chloride	0.376	mg/L							
Calibration Check (B432381-CCV1)				Prepared & Analyzed: 05/06/24					
Chloride	5.06	mg/L		5.000		101	90-110		
Sulfate	5.18	mg/L		5.000		104	90-110		

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions and method modifications used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

B	Present in the method blank at 146.
B2	Contamination does not impact data since sample result is greater than ten times the contamination level found in the blank.
Ba	Present in the method blank at 160 ug/L.
Bb	Present in the method blank at 30 mg/L.
Bc	Present in the method blank at 50 mg/L..
Q4	The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	RGIL	WT	G	4/17/24	1444		5	X	X	X																				
2	EB1	WT	G	4/17/24	1548		5	X		X																				
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		4/17/24	1643				
				Caty P. Jones	4/17/24	1643	Y / 4 / Y / Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/17/24

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4	Y	Y	Y

HD03379

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd	Copy To:	Sam Davies: samantha.davies@vistracorp.com	Company Name:	Vistra Corp
	Canton, IL 61520		Daryl Johnson: Robert.Johnson@vistracorp.com	Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:	
Phone:	(217) 753-8911 Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:	2285	Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	WT	G	4/17/24	1207		20	X	X	X	X	X															
2	WT	G	4/17/24	1521		10	X	X	X	X	X															
3	WT	G	4/17/24	1520		5	X	X	X																	
4	WT	G	4/17/24	1350		4	X	X	X																	
5	WT	G	4/17/24	1110		4	X	X	X																	
6	WT	G	4/17/24	1227		4	X	X	X																	
7	WT	G	4/17/24	1003		1	X																			
8	WT	G	4/17/24	1233		5	X	X	X																	
9	WT	G	4/17/24	1054		4	X	X	X																	
10	WT	G	4/17/24	1530		4	X	X	X																	
11	WT	G	4/17/24	1035		5	X	X	X																	
12	WT	G	4/17/24	1140		5	X		X																	
13	WT	G	4/17/24	1445		5	X		X																	
14	WT	G	4/17/24	1352		5	X		X																	
15	WT	G	4/17/24	1300		5	X		X																	
16	WT	G	4/17/24	1334		10	X	X	X	X	X															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		4/17/24	1643				5	Y	Y	Y
				Caty P. Jones	4/17/24	1643				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Darren Rembleton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 04/17/24

#1 HCL vial broken in lab accident ZC 4/17/24

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical Services, LLC - Hazelwood
944 Anglum Road
Hazelwood, MO 63042
(314) 432-0550

Sample: HD03379-01
Name: G09L

Sampled: 04/17/24 12:07
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 12:07	

Sample: HD03379-02
Name: G14L

Sampled: 04/17/24 15:21
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 15:21	

Sample: HD03379-15
Name: R10L

Sampled: 04/17/24 13:34
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 13:34	

Sample: HD03379-17
Name: G09L Dup

Sampled: 04/17/24 12:07
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 12:07	

SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

IR Gun # 65 Correction Factor (Deg C) -.4

Observed Temp (Deg C) 9.4 Corrected Temp (Deg C) 9.0

Delivery Method: FedEx UPS Walk-in USPS Other

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 4/22/24 Total # of Containers: 8 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	4/22/24 0500		650 4/23/24
	4-23-24	Glenn Miller	4/22 10:30

Sample Temperature Upon Receipt	___ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

RUSH

S-8194, ULINE, 800-295-5510

gej 4/30/24

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical Services, LLC - Hazelwood
944 Anglum Road
Hazelwood, MO 63042
(314) 432-0550

Sample: HD03379-01
Name: G09L

Sampled: 04/17/24 12:07
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 12:07	

Sample: HD03379-02
Name: G14L

Sampled: 04/17/24 15:21
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 15:21	

Sample: HD03379-15
Name: R10L

Sampled: 04/17/24 13:34
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 13:34	

Sample: HD03379-17
Name: G09L Dup

Sampled: 04/17/24 12:07
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/30/24 16:00	05/01/24 12:07	

Sample 15 Only

RUSH

S-8194, ULINE, 800-295-5510

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

Sample #15 Only
@ 4/30/24

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped:_____ Total # of Containers: 2 Sample Origin (State): _____ PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

			1000	Sample Temperature Upon Receipt	2.6 °C
Jill Clark	4/30/24		4-30-24	Sample(s) Received on Ice	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	Y or N
			1410	Bottles Filled with Adequate Volume	Y or N
	4-30-24		43024	Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

HD03933 JDS1

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G02L	WT	G	4/22/24	1427		10	X	X	X	X	X																		
2	G07S	WT	G	4/22/24	1523		4	X		X																				
3	G08L	WT	G	4/22/24	1321		10	X	X	X	X	X																		
4	G15L	WT	G	4/22/24	1204		10	X	X	X	X	X																		
5	G16L	WT	G	4/22/24	1040		10	X	X	X	X	X																		
6	G59L	WT	G	4/22/24	1322		4	X	X	X																				
7	G59L - Dup	WT	G	4/22/24	1327		4	X	X	X																				
8	G64L	WT	G	4/22/24	1455		5	X	X	X																				
9	G67S	WT	G	4/22/24	1107		4	X	X	X																				
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0		4/22/24	1642							
					4/22/24	1642	2.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Kimbrough
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/22/24

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03933

IR Gun # 65 Correction Factor (Deg C) -.4
Observed Temp (Deg C) 6.2 Corrected Temp (Deg C) 5.8
Delivery Method: FedEx UPS Walk-in USPS Other

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 4/26/24 Total # of Containers: 8 Sample Origin (State): ____ PO #: ____

Turn-Around Time Requested: [X] NORMAL [ ] RUSH Date Results Needed: ____

			647	Sample Temperature Upon Receipt	____ °C
[illegible]	4/25/24	1748	[illegible]	Sample(s) Received on Ice	(Y) or N
Relinquished By	Date/Time	Received By	Date/Time	Proper Bottles Received in Good Condition	(Y) or N
				Bottles Filled with Adequate Volume	(Y) or N
[illegible]	4-26-24	[illegible]	4/26 0950	Samples Received Within Hold Time	(Y) or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or (N)

SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HD03933

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical Services, LLC - Hazelwood
944 Anglum Road
Hazelwood, MO 63042
(314) 432-0550

Sample: HD03933-01
Name: G02L

Sampled: 04/22/24 14:27
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/07/24 16:00	05/06/24 14:27	
02-M8260 GW G2	05/07/24 16:00	05/06/24 14:27	

Sample: HD03933-03
Name: G08L

Sampled: 04/22/24 13:21
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/07/24 16:00	05/06/24 13:21	
02-M8260 GW G2	05/07/24 16:00	05/06/24 13:21	

Sample: HD03933-04
Name: G15L

Sampled: 04/22/24 12:04
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/07/24 16:00	05/06/24 12:04	
02-M8260 GW G2	05/07/24 16:00	05/06/24 12:04	

Sample: HD03933-05
Name: G16L

Sampled: 04/22/24 10:40
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/07/24 16:00	05/06/24 10:40	
02-M8260 GW G2	05/07/24 16:00	05/06/24 10:40	

SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HD04153

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical Services, LLC - Hazelwood
944 Anglum Road
Hazelwood, MO 63042
(314) 432-0550

Sample: HD04153-01
Name: G06L

Sampled: 04/23/24 11:36
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/06/24 16:00	05/07/24 11:36	

Sample: HD04153-02
Name: G12L

Sampled: 04/23/24 14:50
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/06/24 16:00	05/07/24 14:50	

Sample: HD04153-03
Name: G12L Dup

Sampled: 04/23/24 14:50
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	05/06/24 16:00	05/07/24 14:50	

IR Gun # 65 Correction Factor (Deg C) -1.4

Observed Temp (Deg C) 6.2 Corrected Temp (Deg C) 5.8

Delivery Method: FedEx (UPS) Walk-in USPS Other

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 4/26/24 Total # of Containers: 6 Sample Origin (State): ____ PO #: ____

Turn-Around Time Requested: [X] NORMAL [ ] RUSH Date Results Needed: ____

L Schindler	4/25/24 1748		6C/6 4-26-24	Sample Temperature Upon Receipt	____ °C
Relinquished By	Date/Time	Received By	Date/Time	Sample(s) Received on Ice	(Y) or N
				Proper Bottles Received in Good Condition	(Y) or N
				Bottles Filled with Adequate Volume	(Y) or N
	4-26-24	Glenn Miller	4/26 0950	Samples Received Within Hold Time	(Y) or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or (N)

HDO4153

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G06L	WT	G	4/23/24	1136		10	X	X	X	X	X																
2	G12L	WT	G	4/23/24	1450		10	X	X	X	X	X																
3	G12L	WT	G	4/23/24	1450		10	X	X	X	X	X																
4	G50L	WT	G	4/23/24	1100		4	X	X	X																		
5	G50S	WT	G	4/23/24	1235		5	X	X	X																		
6	G52S	WT	G	4/23/24	1300		4	X	X	X																		
7	G54L	WT	G	4/23/24	1155		5	X	X	X																		
8	G55L	WT	G	4/23/24	1358		4	X	X	X																		
9	G55S	WT	G	4/23/24	1510		4	X	X	X																		
10	~~P05L~~	~~WT~~	~~G~~	~~4/23/24~~	~~1022~~		5	X	X	X		X																DTW only 4/23/24 dlb
11	RML	WT	G	4/23/24	1200		10	X	X	X	X	X																
12	R13L	WT	G	4/23/24	1339		10	X	X	X	X	X																
13	Field Blank	WT	G	4/23/24	1530		10	X	X	X	X	X																
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		4/23/24	1642							
					4/23/24	1642	0.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Lambertson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/23/24

HDO4153

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:
Company: Vistra Corp-Duck Creek
Address: 17751 North Cilco Rd
Canton, IL 61520
Email To: Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911 Fax:
Requested Due Date/TAT: 10 day

Section B Required Project Information:
Report To: Brian Voelker
Copy To: Sam Davies: samantha.davies@vistracorp.com
Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:
Project Name:
Project Number: 2285

Section C Invoice Information:
Attention: Brian Voelker
Company Name: Vistra Corp
Address: see Section A
Quote Reference:
Project Manager:
Profile #:

Page: 1 of 10

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location STATE: IL

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Code	Sample Type	Collected Date	Collected Time	Sample Temp at Collection	# of Containers	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G06L	WT	G	4/23/24	1136		10	X	X	X	X	X																
2	G12L	WT	G	4/23/24	1450		10	X	X	X	X	X																
3	G12L	WT	G	4/23/24	1450		10	X	X	X	X	X																
4	G50L	WT	G	4/23/24	1100		4	X	X	X																		
5	G50S	WT	G	4/23/24	1235		5	X	X	X																		
6	G52S	WT	G	4/23/24	1300		4	X	X	X																		
7	G54L	WT	G	4/23/24	1155		5	X	X	X																		
8	G55L	WT	G	4/23/24	1358		4	X	X	X																		
9	G55S	WT	G	4/23/24	1510		4	X	X	X																		
10	~~P05L~~	~~WT~~	~~G~~	~~4/23/24~~	~~1022~~		5	X	X	X		X																DTW only 4/23/24 dlb
11	R14L	WT	G	4/23/24	1240		10	X	X	X	X	X																
12	R13L	WT	G	4/23/24	1339		10	X	X	X	X	X																
13	Field Blank	WT	G	4/23/24	1530		10	X	X	X	X	X																
14																												
15																												
16																												

Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0		4/23/24	1642							
					4/23/24	1642	0.6	Y	N	Y

SAMPLER NAME AND SIGNATURE	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Aaron Rambeau				
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/23/24				

~~HD044441~~ HD044439

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY: NPDES | GROUND WATER | DRINKING WATER; UST | RCRA | OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G54S			4/24/24	1149		5	J	J	J																		
2	G57S				1300		1																					
3	G61S				1250																							
4	G64S				1130																							
5	G60L				1140																							
6	G60S				1320		↓																					
7	G51L				1120		4																					
8	G51L Dup				1120		1																					
9	G58L				1339																							
10	G58S				1355																							
11	G56L				1441																							
12	G57L				1355																							
13	R72S				1020																							
14	P60-1				1219		2	J	J	J																		
15	L103				1427		17	J	J	J	J	J																
16	X301			↓	1533		3	J		J																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0	Jim David	4/24/24	1653							
					4/24/24	1653	5.9	Y	N1	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jim David

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/24/24

HD05160
KM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Page: 1 of 10
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:	Site Location
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	STATE: IL

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G02L	WT	G	4/30/24	1200		1	X																				
2	G15L	WT	G	4/30/24	1244		1	X																				
3	G525	WT	G	4/30/24	1336		1	X																				
4	G54L	WT	G	4/30/24	1119		1	X																				
5	G55L	WT	G	4/30/24	1140		1	X																				
6	G71L	WT	G	4/30/24	1218		1	X																				
7	G72L	WT	G	4/30/24	1330		1	X																				
8	DR03D	WT	G	4/30/24	1059		1	X																				
9	R725	WT	G	4/30/24	1256		1	X																				
10	Equipment Blank 3	WT	G	4/30/24	1059		1	X																				
11																												
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		4/30/24	1622							
					4/30/24	1622	4.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brian Kimbeller
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/30/24

Courier

Pace ANALYTICAL SERVICES
WWW.PACELABS.COM

REGULATORY PROGRAM (CIRCLE):	NPDES
MORBCA	RCRA
CCDD	TACO: RES OR IND/COMM

CHAIN OF CUSTODY RECORD

SAMPLE COLLECTED IN THE STATE OF IL

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT)

1 CLIENT: Duck Creek
ADDRESS:
CITY / STATE / ZIP:
CONTACT PERSON:

PROJECT NUMBER:
PHONE NUMBER:
PROJECT LOCATION:
E-MAIL:
PURCHASE ORDER #:
DATE SHIPPED:
SAMPLER (PLEASE PRINT): JD, JB
SAMPLER'S SIGNATURE: JBohannon

MATRIX TYPES:
WW- WASTEWATER
DW- DRINKING WATER
GW- GROUND WATER
WWSL- SLUDGE
NAS- NON AQUEOUS SOLID
LCHT-LEACHATE
OIL-OIL
SO-SOIL
SOL-SOLID

3 ANALYSIS REQUESTED

4 (FOR LAB USE ONLY)
LOGIN #: HE01704
LOGGED BY: CJ
CLIENT:
PROJECT:
PROJ. MGR.:
CUSTODY SEAL #:

2 SAMPLE DESCRIPTION (UNIQUE DESCRIPTION AS IT WILL APPEAR ON THE ANALYTICAL REPORT)	DATE COLLECTED	TIME COLLECTED	SAMPLE TYPE GRAB	SAMPLE TYPE COMP	MATRIX TYPE	BOTTLE COUNT	PRES CODE (CLIENT PROVIDED)	REMARKS
GO2L	5/8/24	12:34	X			1		
G15L	5/8/24	13:08	X			1		
G52S	5/8/24	12807	X			1		
G54L	5/8/24	11:44	X			1		
G55L	5/8/24	11:18	X			1		

CHEMICAL PRESERVATION CODES: 1 – HCL | 2 – H2SO4 | 3 – HNO3 | 4 – NAOH | 5 – NA2S2O3 | 6 – UNPRESERVED | 7 – OTHER

5 TURNAROUND TIME REQUESTED (PLEASE CIRCLE) NORMAL RUSH
(RUSH TAT IS SUBJECT TO PACE LABS APPROVAL AND SURCHARGE)
RUSH RESULTS VIA (PLEASE CIRCLE) EMAIL PHONE
EMAIL IF DIFFERENT FROM ABOVE:
PHONE # IF DIFFERENT FROM ABOVE:
DATE RESULTS NEEDED:

6 *I understand that by initialing this box I give the lab permission to proceed with analysis, even though it may not meet all sample conformance requirements as defined in the receiving facility's Sample Acceptance Policy and the data will be qualified. Qualified data may NOT be acceptable to report to all regulatory authorities.*
PROCEED WITH ANALYSIS AND QUALIFY RESULTS: (INITIALS)

7	DATE	TIME
RELINQUISHED BY: (SIGNATURE) JBohannon	5/8/24	4:20
RELINQUISHED BY: (SIGNATURE)		
RELINQUISHED BY: (SIGNATURE)		

RECEIVED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)		
RECEIVED BY: (SIGNATURE) Gaby P. Jones	5/8/24	16:20

8 COMMENTS: (FOR LAB USE ONLY)

SAMPLE TEMPERATURE UPON RECEIPT: 4.7 °C
TEMPERATURE GUN ID: 15
CHILL PROCESS STARTED PRIOR TO RECEIPT: Y OR N
SAMPLE(S) RECEIVED ON ICE: Y OR N
SAMPLE ACCEPTANCE NONCONFORMANT REPORT IS NEEDED: Y OR N
DATE AND TIME TAKEN FROM SAMPLE BOTTLE:

Courier

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q2 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments + Total Depths	Initials
BA01C	DC-BA01!C	205	BAB	4/12/24	1202	11.65	DB	BG
BA01L	DC-BA01!L	205	BAB		1200	7.80	DB	
G02D	DC-G02&D	204	LF		1002	20.65	38.06 - DT	
G02L	DC-G02!L	204	LF		0958	7.27	18.00 - Pump Removed	
G03L	DC-G03!L	204	LF		0950	5.11	26.49	
G03S	DC-G03#S	204	LF		0954	4.66	DB	
G04L	DC-G04!L	204	LF		0940	13.16	16.90 - Pump Removed	
G04S	DC-G04#S	204	LF		0945	9.71	DB	
G06L	DC-G06!L	204	LF		1045	19.22	25.34	
G06S	DC-G06#S	204	LF		1049	19.34	DB	
G07L	DC-G07!L	204	LF		1052	18.99	23.45	
G08L	DC-G08!L	204	LF		1055	18.50	23.07	
G09L	DC-G09!L	204	LF		1057	19.42	23.54	
G09S	DC-G09#S	204	LF		1100	19.64	DB	
G12L	DC-G12!L	204	LF		1115	18.30	DB	
G12S	DC-G12#S	204	LF		1117	20.20	DB	
G14L	DC-G14!L	204	LF		1123	20.46	26.86	
G15L	DC-G15!L	204	LF		1136	23.16	34.43	
G15S	DC-G15#S	204	LF		1140	23.51	DB	
G16L	DC-G16!L	204	LF		1145	21.92	DB	
G50L	DC-G50!L	203	GMF		1045	10.16	DB	
G51L	DC-G51!L	203	GMF		1031	9.64	DT	
G52L	DC-G52!L	203	GMF		1021	22.30	DB	

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q2 Rev 1

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments + Total Depth	Initials
G52S	DC-G52#S	203	GMF	4/12/24	1024	28.61	DB	BG
G53L	DC-G53!L	203	GMF		1059	9.34	DB	
G53S	DC-G53#S	203	GMF		1056	10.73	DB	
G55L	DC-G55!L	203	GMF		0924	19.56	DB	
G55S	DC-G55#S	203	GMF		0924	19.27	DB	
G56L	DC-G56!L	203	GMF		1311	16.54	25.43	
G56S	DC-G56#S	203	GMF		1309	16.81	DB	
G57L	DC-G57!L	203	GMF		1250	18.66	29.26	
G58L	DC-G58!L	203	GMF		1242	22.63	33.80	
G58S	DC-G58#S	203	GMF		1239	22.64	DB	
G59L	DC-G59!L	203	GMF		1237	19.29	35.32	
G59S	DC-G59#S	203	GMF		1234	31.71	DB	
G61S	DC-G61#S	203	GMF		1204	16.73	DB	
G62L	DC-G62!L	203	GMF		1153	18.64	33.52	
G63L	DC-G63!L	203	GMF		1134	~~21.74~~	31.00	BG 5/17/24
G63S	DC-G63#S	203	GMF		1130	22.08	DB	
G65L	DC-G65!L	203	GMF		1328	16.50	25.20	
G65S	DC-G65#S	203	GMF		1325	16.80	DB	
G66L	DC-G66!L	203	GMF		1323	12.41	22.83	
G66S	DC-G66#S	203	GMF		1320	12.76	DB	
G67L	DC-G67!L	203	GMF		1315	10.73	20.09 - Pump Removed	
G67S	DC-G67#S	203	GMF		1317	11.48	DB	
G68L	DC-G68!L	203	GMF		1011	12.55	17.09	

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q2 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments +Total Depth	Initials
G68S	DC-G68#S	203	GMF	4/12/24	1007	13.42	DB	BG
G69L	DC-G69!L	203	GMF		0959	10.26	27.84	
G69S	DC-G69#S	203	GMF		1002	13.90	DB	
G70L	DC-G70!L	203	GMF		1306	13.67	DB	
G71L	DC-G71!L	203	GMF		1308	17.57	32.95	
G71S	DC-G71#S	203	GMF		1310	18.53	DB	
G72L	DC-G72!L	203	GMF		1313	18.42	28.05	
G73L	DC-G73!L	203	GMF		1319	23.76	DB	
L103	DC-L103	204	LF		1135	1.17		
OM05S	DC-OM05#S	201-202	AP1/2		1036	21.22	25.72- No ID No Cap	
OM08	DC-OM08	201-202	AP1/2		1232	12.07	26.90	
OM09	DC-OM09	201-202	AP1/2		1242	3.13	Waterra Pump	
OM10	DC-OM10	201-202	AP1/2		0951	5.19	20.00	
OM15	DC-OM15	201-202	AP1/2		0942	20.37	51.11	
OM22S	DC-OM22#S	201-202	AP1/2		1251	17.09	40.19	
OM23S	DC-OM23#S	201-202	AP1/2		1310	40.60	46.07	
OM25D	DC-OM25&D	201-202	AP1/2		1322	57.99	77.40	
OR03S	DC-OR03#S	201-202	AP1/2		1306	45.39	60.50	
OR05D	DC-OR05&D	201-202	AP1/2		1034	20.57	49.80	
OR14S	DC-OR14#S	201-202	AP1/2		1026	5.83	24.34	
OR18	DC-OR18	201-202	AP1/2		0927	18.07	53.00	
OM26	DC-OM26	201-202	AP1/2		1154	29.29	61.58	
OM27	DC-OM27	201-202	AP1/2		1122	32.65	61.78	

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q2 Rev 1

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments + Total Depths	Initials
OM28	DC-OM28	201-202	AP1/2	4/12/24	1128	47.58	68.88	BG
P01I	DC-P01$I	204	LF		1013	7.89	~~23.35~~ 40.97 BG 4/12/24	
P01L	DC-P01!L	204	LF		1015	7.98	~~29~~ 23.35 BG 4/12/24	
P01S	DC-P01#S	204	LF		1018	7.89	29.66	
P02S	DC-P02#S	204	LF		1007	7.28	DB-G025	
P04S	DC-P04#S	204	LF		0945	9.71	DB-G045	
P05D	DC-P05&D	204	LF		0925	5.45	45.61-DT	
P05S	DC-P05&S	204	LF		0930	4.66	DB	
P05L	DC-P05#L	204	LF		0935	4.85	14.60-DT	
P36D	DC-P36&D	204	LF		1035	10.50	51.36	
P36L	DC-P36!L	204	LF		1033	9.27	DB	
P36S	DC-P36#S	204	LF		1030	9.59	31.42	
P37D	DC-P37&D	204	LF		1103	13.88	43.22-DT	
P37L	DC-P37!L	204	LF		1106	12.72	DB	
P38L	DC-P38!L	204	LF		1128	11.47	19.74	
P38S	DC-P38#S	204	LF		1126	10.96	31.42-DT	
P39D	DC-P39&D	204	LF		1151	11.13	42.64-DT	
P39L	DC-P39!L	204	LF		1155	4.12	15.10-DT	
P39S	DC-P39#S	204	LF		1154	3.79	26.25-DT	
P40L	DC-P40!L	204	LF		1206	4.90	20.36-DT	
P40S	DC-P40#S	204	LF		1209	4.07	35.31-DT	
P41D	DC-P41&D	204	LF		1235	39.20	69.09-DT	
P41L	DC-P41!L	204	LF		1237	3.07	12.01	

BG 4/30/24

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q2 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments + Total Depths	Initials
P41S	DC-P41#S	204	LF	4/12/24	1240	6.02	31.52-DT	~~BG~~
P42D	DC-P42&D	204	LF		1230	37.20	76.56	
P42I1	DC-P42$I1	204	LF		1227	3.32	42.28	
P42I2	DC-P42%I2	204	LF		1225	31.75	57.37	
P42L	DC-P42!L	204	LF		1222	3.23	20.32-Well Broken	
P42S	DC-P42#S	204	LF		1219	3.03	31.52	
P52	DC-P52	203	GMF		1303	11.37	28.24	
P57L	DC-P57!L	203	GMF		1402	14.04	22.50	
P57S	DC-P57#S	203	GMF		1404	13.77	34.34	
P60	DC-P60	203	GMF		1229	19.58	37.32	
P61	DC-P61	203	GMF		1159	5.67	21.52	
P62	DC-P62	203	GMF		1149	7.88	19.09	
P63	DC-P63	203	GMF		1144	11.35	20.44	
P64	DC-P64	203	GMF		1109	10.60	18.86	
R10L	DC-R10!L	204	LF		1340	19.19	27.20	
R11L	DC-R11!L	204	LF		1112	18.20	26.48-Soft Bottom	
R13L	DC-R13!L	204	LF		1120	18.95	29.88	
R61L	DC-R61!L	203	GMF		1208	16.97	31.42	
R72S	DC-R72#S	203	GMF		1316	18.25	37.72	
T43L	DC-T43!L	204	LF		1038	6.23	DB	
T44L	DC-T44!L	204	LF		1040	8.70	DB	
T45L	DC-T45!L	204	LF		1042	6.36	DB	
T46L	DC-T46!L	204	LF		1026	6.17	DB	

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q2 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments +Total Depth	Initials
X301	DC-X301-leachate	203	GMF	4/12/24	1420	–	N/A	BG
XTPW02	DC-XTPW02-pore	203	GMF	4/12/24	1330	Dry	6.97	BG

U:6/19/23 GKJ

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Transducer data on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC

Event: DC-24Q2 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments + Total Depth	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	4/12/24	1157	12.25	21615533	Y	575.23	Y	H	Dedicated B	BG
BA02	DC-BA02	205	BAB		1129	5.87	21615636		574.38				
BA02L	DC-BA02!L	205	BAB		1149	5.72	21615682		574.35				
BA03	DC-BA03	205	BAB		1115	4.84	21615637		573.63				
BA03L	DC-BA03!L	205	BAB		1119	4.38	21615687		573.58				
BA04	DC-BA04	205	BAB		1108	4.15	21615631		574.28				
BA05	DC-BA05#	205	BAB		1219	15.12	21615540		580.71				
BA06	DC-BA06	205	BAB		1214	19.60	21615525		576.33				
G02S	DC-G02#S	204	LF		1007	7.28	21615554		614.59				
G50S	DC-G50#S	203	GMF		1039	11.31	21615535		612.51				
G51S	DC-G51#S	203	GMF		1035	9.06	21615691		608.58			—	
G54L	DC-G54!L	203	GMF		0932	22.38	21615690		600.53			40.15-No Pump	BG
G54S	DC-G54#S	203	GMF		0940	23.56	21615684		599.73			Dedicated B	
G57S	DC-G57#S	203	GMF		1248	18.36	21615683		604.27				
G60L	DC-G60!L	203	GMF		1225	8.12	21615678		607.14				
G60S	DC-G60#S	203	GMF		1221	21.83	21615677		593.15				
G64L	DC-G64!L	203	GMF		1126	19.74	21615688		602.66				
G64S	DC-G64#S	203	GMF	—	1120	21.76	21615632	—	601.39	—	—	—	—

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.
Transducer data on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC
Event: DC-24Q2 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments +Total Depth	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OM01	DC-OM01	201-202	AP1/2	4/12/24	1246	8.86	21615685	Y	586.40	Y	H	27.62 - Dedicated Tubing	BG
OM04S	DC-OM04#S	201-202	AP1/2		0957	17.49	21615542	Y	589.72	Y	H	35.85	
OM07	DC-OM07	201-202	AP1/2		1057	12.13	21615541	N/A	N/A	N/A	N/A	29.47	
OM12	DC-OM12	201-202	AP1/2		1214	15.32	21615527	N/A	N/A	N/A	N/A	43.01	
OM16	DC-OM16	201-202	AP1/2		1014	27.49	21615539	Y	580.36	Y	H	43.67	
OM17	DC-OM17	201-202	AP1/2		1001	10.56	21615693		581.20			17.25	
OM21	DC-OM21	201-202	AP1/2		1013	8.70	21615593		597.67			60.49	
OM22D	DC-OM22&D	201-202	AP1/2		1254	16.83	21615592		582.27			65.17	
OM23D	DC-OM23&D	201-202	AP1/2		1805	37.70	21615591		575.58			82.95	
OM24D	DC-OM24&D	201-202	AP1/2		1333	2.46	21615522		574.50			20.14	
OM25S	DC-OM25#S	201-202	AP1/2		1325	58.09	21615681		570.91			64.03	
OR02	DC-OR02	201-202	AP1/2		1254	4.43	21615679		596.87			22.52 - Soft Bottom	
OR03D	DC-OR03&D	201-202	AP1/2		1303	44.88	21615577		583.02			77.75	
OR04D	DC-OR04&D	201-202	AP1/2		0938	20.07	21615570		587.59			68.07	
OR06A	DC-OR06IA	201-202	AP1/2		1050	12.64	21615692		582.77			26.05	
OR11	DC-OR11	201-202	AP1/2		1029	29.68	21615686		566.56			40.57	
OR13S	DC-OR13#S	201-202	AP1/2		1230	11.43	21615676		591.10			29.53	
OR13D	DC-OR13&D	201-202	AP1/2	—	1234	12.15	21564135	—	590.39	—	—	50.17	—

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.
Transducer data on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC
Event: DC-24Q2 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments + Total Depth	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-202	AP1/2	4/12/24	1022	8.80	21615611	Y	590.35	Y	H	48.73	BG
OR19	DC-OR19	201-202	AP1/2	"	1223	20.93	21615634	"	576.87	"	"	54.92	"
OR20	DC-OR20	201-202	AP1/2	"	1049	26.44	21615610	"	567.07	"	"	57.34	"

Notes:
Batt = battery
bmp = below measuring point
ft = feet
H = high
L = low
M = medium
R = replaced

Duck Creek

WELL/SAMPLE POINT G02S **Purge Method:** low flow / bladder

Date: 4/22/2024 Start Time: 1433 Finish/Sample Time: 1523

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 7.32 ft Total Purge Volume: 1650 mL

Water Column Length: _____ ft

Well Water Volume: _____ L Total Drawdown: 1.33 ft

App 4/22/24

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1045	8.43	~~100~~ 150	6.70	658	18.22	-107	0.64	112
2	1047	8.43	~~100~~ 150	6.70	674	18.18	-96	0.57	106
3	1049	8.43	~~100~~ 150	6.68	683	18.10	-98	0.52	101
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AT600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 8.65 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G50S **Purge Method:** low Flow / Bladder

Date: 4/23/2024 Start Time: 1123 Finish/Sample Time: 1235 1135 App 4/23/24

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 11.55 ft Total Purge Volume: ~~1400~~ 1600 mL

Water Column Length: 25.75 ft

Well Water Volume: 15.57 L Total Drawdown: 3.50 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1136	13.42	100	7.22	709	11.80	-26	2.70	254
2	1139	13.85	100	7.14	712	11.79	-12	2.79	233
3	1141	14.30	100	7.09	714	11.80	-8	2.87	198
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	X

App 4/23/24

BOTTLE INFORMATION:

Unfiltered Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	Phenols (~~A,G~~,250mL, H2SO4) Ammonia
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

(5)

Filtered Qty	Filtered Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 15.05 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G51S **Purge Method:** Compressor

Date: 4/17/24 Start Time: 13:56 Finish/Sample Time: 15:20

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 9.30 ft Total Purge Volume: 1200 mL

Water Column Length: 22.87 ft

Well Water Volume: 13.85 L Total Drawdown: 7.28 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	14:21	11.96	100	6.93	787	13.96	-106	0.0	346
2	14:24	12.44	100	6.91	763	13.94	-95	0.0	378
3	14:27	12.88	100	6.89	753	13.92	-89	0.0	242
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)
1	Ammonia (P,250mL, H2SO4)

(5)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 16.58 ft

Comments

Sampler's Signature: Ashley Ellis

Duck Creek

WELL/SAMPLE POINT G54L **Purge Method:** Peristaltic w/ dedicated Tubing

Date: 4/23/2024 Start Time: 1019 Finish/Sample Time: 11:55

Well Depth (Bottom) From MP: 40.30 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 22.26 ft Total Purge Volume: 1500 mL

Water Column Length: 18.04 ft

Well Water Volume: 10.93 L Total Drawdown: 1.72 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1056	23.49	100	7.04	1730	12.57	-37	0.62	0.2
2	1059	23.56	100	6.40	1670	12.44	-47	0.15	0.0
3	1102	23.63	100	6.18	1640	12.33	-50	0.06	0.0
4	1105	23.64	100	6.10	1630	12.25	-51	0.00	0.0
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(5)

Filtered Qty	Filtered Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 23.98 ft

Comments **Check pH if readings are below 6.5**

Sampler's Signature: J Bohannon

Duck Creek

WELL/SAMPLE POINT G54L **Purge Method:** Peristaltic

Date: 4/30/24 Start Time: 1041 Finish/Sample Time: 1119

Well Depth (Bottom) From MP: 40.15 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 22.22 ft Total Purge Volume: 1800 mL

Water Column Length: 17.93 ft

Well Water Volume: 10.86 L Total Drawdown: 1.28 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1101	23.35	100	6.60	1560.8	20.98	-131	0.47	0.30
2	1103	23.39	|	6.60	1597.6	20.78	-107.9	0.49	0.62
3	1105	23.50	|	6.60	1572.7	20.56	-129.6	0.53	0.96
4	1107	23.59	↓	6.63	1580.1	20.96	-127.1	0.52	1.02
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aqua troll

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
	General (P,1000mL)
	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 23.50 ft

Comments **Check pH if readings are below 6.5**

Sampler's Signature: [signature]

Duck Creek

WELL/SAMPLE POINT G54L **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 5/8/24 Start Time: 1122 Finish/Sample Time: 1144

Well Depth (Bottom) From MP: **40.15** ft

Depth to Water From MP: 21.90 ft

Water Column Length: 18.25 ft

Well Water Volume: 11.05 L

Min. Purge Volume: 1000 mL

Total Purge Volume: 1300 mL

Total Drawdown: 1.32 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1129	22.91	100	6.46	1472.8	18.68	-74.8	0.84	0.35
2	1130	22.93	100	6.46	1448.8	18.64	-75.2	0.82	0.25
3	1131	22.95	100	6.46	1455.6	18.59	-75.5	0.79	0.21
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatrol 600

Check pH if reading is below 6.5

Secondary pH Meter: PCTS 50 pH = 6.55

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	General (P,1000mL)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 23.22 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G54S **Purge Method:** Compressor 11:49 AW 4/24/24

Date: 4/24/24 Start Time: 9:39 Finish/Sample Time: ~~Compressor~~

Well Depth (Bottom) From MP: 51.26 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 23.72 ft Total Purge Volume: 1100 mL

Water Column Length: 27.54 ft

Well Water Volume: 16.68 L Total Drawdown: 5.53 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	10:28	26.08	100	6.74	1170	14.20	-67	10.80	10.6
2	10:31	26.31	100	6.72	1070	13.76	-65	9.89	13.8
3	10:34	26.56	100	6.70	1040	13.74	-60	9.60	18.1
4	10:37	26.78	100	6.68	1040	13.72	-64	9.45	12.8
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)
1	Ammonia (P,250mL, H2SO4)

5

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 29.25 ft

Comments **Check pH if readings are below 6.5**

Sampler's Signature: Andy Whitten

Duck Creek

WELL/SAMPLE POINT G57S **Purge Method:** Compressor

Date: 4/24/24 Start Time: 11:54 Finish/Sample Time: 13:00

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 19.45 ft Total Purge Volume: 1100 mL

Water Column Length: 17.95 ft

Well Water Volume: 10.87 L Total Drawdown: 0.0 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	12:16	19.18	100	6.72	1360	14.29	80	3.04	16.4
2	12:19	19.22	100	6.70	1360	14.27	80	3.00	16.7
3	12:22	19.22	100	6.68	1360	14.25	78	2.97	16.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)
1	Ammonia (P,250mL, H2SO4

AW 4/24/24

5

Filtered Qty	Filtered Bottles
	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 18.95 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Well leaks a lot

Sampler's Signature: Andy Winston

Duck Creek

WELL/SAMPLE POINT G60L **Purge Method:** Dedicated bladder

Date: 4/24/24 Start Time: 1033 Finish/Sample Time: 1140

Well Depth (Bottom) From MP: 27.00 ft Min. Purge Volume: ~ mL

Depth to Water From MP: 8.51 ft Total Purge Volume: 1000 mL

Water Column Length: 18.49 ft

Well Water Volume: 11.20 L Total Drawdown: 6.04 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1049	11.30	100	6.18	823	16.43	32.8	0.86	241
2	1050	11.40	100	6.18	821	16.39	35.5	0.79	232
3	1051	11.50	100	6.18	819	16.35	38.4	0.85	215
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes	/	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)
1	Ammonia

(5)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 14.55 ft

Comments Pulled pump to knock free stuck check balls

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G60S JD 4/24 **Purge Method:** Compressor / Dedicated bladder Pump

Date: ~~4/15/24~~ 4/24/24 JD 4/24 Start Time: ~~13:10~~ 1155 Finish/Sample Time: 1320

Well Depth (Bottom) From MP: 39.20 ft JD 4/24 Min. Purge Volume: 1000 mL

Depth to Water From MP: ~~22.50~~ ft 21.80 Total Purge Volume: 1100 mL

Water Column Length: ~~16.70~~ ft 17.40

Well Water Volume: ~~10.11~~ L 10.54 Total Drawdown: 0.30 ~~22.10~~ ft JD 4/24

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1224	22.10	100	6.70	1017	17.66	-47.2	0.75	999
2	1225	22.10	100	6.70	1013	17.63	-45.1	0.78	1118
3	1227	22.10	100	6.70	1021	17.59	-40.9	0.81	1246
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: ~~Horiba~~ JD 4/24 Aquatroll 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)
1	Ammonia

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 22.10 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Broken pump, needs to be serviced 4/15/24 | 4/24/24 Pulled pump, took apart, cleaned Pump was sitting on bottom, cut 1' tubing off, pump working good

Sampler's Signature:

Duck Creek

AW 4/15/24

WELL/SAMPLE POINT: **G64L**

Purge Method: ~~Compressor~~ Peristaltic

Date: ~~4/15/24~~ AW 4/22/24

Start Time: ~~14:40~~ 13:28 AW 4/22/24

Finish/Sample Time: 14:55

Well Depth (Bottom) From MP: 30.25 ~~30.48~~ ft

Min. Purge Volume: 1000 mL

Total Purge Volume: 1100 mL

Depth to Water From MP: 19.71 ft

Water Column Length: 10.54 ft

Well Water Volume: 6.38 L

Total Drawdown: 0.42 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	13:50	20.05	100	6.91	1130	16.94	104	6.81	0.0
2	13:53	20.08	100	6.89	1130	16.40	110	4.08	0.0
3	13:56	20.11	100	6.87	1120	16.39	113	3.96	0.0
4	13:59	20.13	100	6.85	1120	16.37	117	3.77	0.0
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign		
Casing locked/secure		
Well cap fits securely.		
Good seal/drainage		
Well has weep holes		

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)
1	Ammonia (P, 250 mL, H2SO4)

(5)

Filtered	
Qty	**Bottles**
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 20.13 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Sampler's Signature: [signature]

Duck Creek

WELL/SAMPLE POINT G64S **Purge Method:** low flow/bladder

Date: 4/24/2024 Start Time: 1015 Finish/Sample Time: 1130

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 21.91 ft Total Purge Volume: 1600 mL

Water Column Length: 17.59 ft

Well Water Volume: 10.64 L Total Drawdown: 0.09 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1030	22.64	100	6.72	939	13.54	210	1.45	144
2	1033	22.83	100	6.70	912	13.45	197	1.38	142
3	1036	22.74	100	6.66	904	13.35	193	1.31	137
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V, 40mL, H2O4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	~~Phenols~~ (A,G,250mL, H2SO4) Ammonia
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

5

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2O4)

Final DTW: 22.00 ft

Comments **Check pH if readings are below 6.5 or above 7.5**

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT **X301 Pump House** **Purge Method:** bailer 1 pump

Date: 4/24/24 ~~1533~~ Start Time: 1517 Finish/Sample Time: 1533

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1									
	1528	—	—	6.41	5273	6.43	93.6	3.63	3.54
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: A7600

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Comments

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Bowan Amberson	Location:	Duck creek
Weather:		Environment:	grass, dirt
Multiparameter Water Meter	Make: Horiba	Model: U50eo	Serial Number: PW2GYJJ3
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: TQFE2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.25	s.u.	±0.1 s.u.	P	yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	211	mV	±15 mV	P	yes	234	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	136.8	%	97-100%	P	yes	99.8	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

234 @ 21°C

ICV (Initial Calibration Verification)					Time: 1004		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.95	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	968	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1515			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/15/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	3D	Location:	Duck Creek
Weather:	67°-80°F sunny wind NE 8-15mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number:	846000	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	19FF2202131ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.24	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.27	s.u.	±0.1 s.u.	F	Y	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.38	s.u.	±0.1 s.u.	F	Y	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	6.44	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2002.8	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	228.1	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.86	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0957

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	989.38	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1545

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	951.33	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.71	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	4/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	63°-79° 9mph Wind NE Sunny	Environment:	grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	NO		MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P			InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.8%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	4/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	71°-80°F mostly cloudy Wind SE 16mph	Environment:	grass Woods

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PW2GVJD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF2111M2HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.91	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10,	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	12	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	235	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.8	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)

Time: 0944

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.13	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1617

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	989	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/16/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	80-61° cloudy/Rain wind 22mphS	Environment:	landfill
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: YL9K59HA
Water Level Meter	Make: WT	Model: Heilon	Serial Number: 11FF2209305ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	7.18	s.u.	±0.1 s.u.	F	Y	7.02	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1920	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	245	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0934

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.03	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	982	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1312

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin M. Date: 16-Apr-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	67°-78° 14mph Wind SE cloudy	Environment:	grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTR4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	237	mV	±15 mV	P			InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.2%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 9:00

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.04	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 16:21

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Andy Wetuska Date: 4/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	59°-67°F cloudy wind SW 19mph	Environment:	grass, dirt
Multiparameter Water Meter	Make: Hériba	Model: U5000	Serial Number: PW2GKJ03
Water Level Meter	Make: Heron	Model: Dipper I	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

237 @ 19°C

ICV (Initial Calibration Verification)					Time: 0956			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	994	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1548				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/17/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	62-67°F cloudy wind WSW 21-41 mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 846000		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.95	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	3.37	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1976.0	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	228.1	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.25	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.81	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0922

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.88	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	962.62	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1530

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	958.19	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.33	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature:	JD	Date:	4/17/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	67°-94° windy wind 19mph W	Environment:	Landfill

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	YL9KJ9HA	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	N	—	MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N	—	MSI	022361-01	12/27/2024
SC Zero (DI)	130	µS/cm	0<25 µS/cm	P	Y	0.0	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1820	µS/cm	±5%	P	Y	2000	Geotech	3GF1197	Jun-24
ORP	221	mV	±15 mV	P	N	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.1	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0910

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	7.32	s.u.	±0.15 s.u.	F	Y 7.01	Geotech	2GF113	Jun-24
pH 10.00b	10.58	s.u.	±0.15 s.u.	F	Y 10.00	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1533

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Austin Moore — Date: 17-Apr-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	57°-67° 8mph E windy	Environment:	Grassy, gravel

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	240	mV	±15 mV	P	NO		InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	99.7%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 9:04			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.02	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1500			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1018	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Andy Wittstock	Date:	4/18/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Auron Lemberton	Location:	Duck creek
Weather:	58°-67° L Cloudy Wind NE 8 mph	Environment:	grass, gravel

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PW2GYJ03	
Water Level Meter	Make: Solinst	Model: 101	Serial Number:	33450	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	P	NO	–	Geotech	3GF1197	Jun-24
ORP	245	mV	±15 mV	P	NO	–	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	97.6	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

2.42 @ 15°C

ICV (Initial Calibration Verification) Time: 0936

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	–	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	–	Geotech	2GF113	Jun-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	–	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1541

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC 1000	0986	µS/cm	±5%	P	NO	–	Ricca	4209A12	Aug-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/18/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	57-64°F cloudy, wind ENE 10-16 mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	846000	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	7.35	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990.8	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	235.8	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.06	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.30	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.05	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0925

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.94	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	981.3	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1535

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	963.8	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.51	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/18/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron pemberton	Location:	Duck creek
Weather:	51°-65°F Sunny wind SW 8mph	Environment:	grass, dirt
Multiparameter Water Meter	Make: AT	Model: 600	Serial Number: 846000
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 11F-220 305 ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	19.70	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2029.1	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	231.0	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.20	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

233 @ 22°C

ICV (Initial Calibration Verification)					Time: 0918			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	955.48	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1536				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	961.7	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/22/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	50°-65° Sunny 8mph Wind SW	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	NO	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	NO	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	NO	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	NO	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	NO	NO	Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO	NO	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	NO	Macron	#000228049	8/26/2025
DO (Saturated)	97.7%	%	97-100%	P	NO	NO	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	NO	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 9:01			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.07	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.04	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1050	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1530				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Andy Wetstein	Date:	4/22/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Richardson	Location:	Duck creek
Weather:	50-60° rain windy 5W 10mph	Environment:	grass, gravel, mud

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	0W26YJA3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	14FF220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	239	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification) Time: 0950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1514

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/23/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	54-59°F cloudy rainy wind WNW 12-16 mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	846000	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11F220305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC Zero (DI)	0.23	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1980.2	µS/cm	±5%	↓	↓	↓	Geotech	3GF1197	Jun-24
ORP	233.8	mV	±15 mV	↓	↓	↓	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.06	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	99.15	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.51	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0942

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.99	s.u.	±0.15 s.u.	↓	↓	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	962.32	µS/cm	±5%	↓	↓	Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1539

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC 1000	962.89	µS/cm	±5%	↓	↓	↓	Ricca	4209A12	Aug-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.33	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	50-64°F, Rain, 10mph wind	Environment:	Grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 37177-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	~~3.9~~ 7.37	s.u.	±0.1 s.u.	F	Yes	7.07	MSI	023051-02	2/21/2025
pH 10.00a	10.31	s.u.	±0.1 s.u.	F	Yes	10.02	MSI	022361-01	12/27/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1980	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	220	mV	±15 mV	P	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

4/23 JB

ICV (Initial Calibration Verification) Time: 0945

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.91	s.u.	±0.15 s.u.	P	Cal: 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1245

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC 1000	1007	µS/cm	±5%	↓	↓	↓	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: JBohannan Date: 04/23/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AM, JB	Location:	Duck Creek
Weather:	44-62°F, Sunny, 10mph wind	Environment:	Grass, Mud

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.46	s.u.	±0.1 s.u.	F	Yes	4.02	MSI	023067-01	3/14/2025
pH 7.00a	7.35	s.u.	±0.1 s.u.	F	Yes	7.02	MSI	023051-02	2/21/2025
pH 10.00a	10.42	s.u.	±0.1 s.u.	F	Yes	10.02	MSI	022361-01	12/27/2024
SC Zero (DI)	0.000	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	225	mV	±15 mV	P	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0902

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.83	s.u.	±0.15 s.u.	F	Calibrated: 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.16	s.u.	±0.15 s.u.	F	Calibrated: 9.99	Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1457

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1011	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: JBohannan — Date: 4/24/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	50-60°F passing wind NE 9-15mph	Environment:	grass
Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 846000
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.06	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2035.4	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	238.5	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.81	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0920

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	994.98	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1415

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	976.06	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.20	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron & Mason	Location:	Duck creek
Weather:	51°-61°F Sunny Wind NE 9mph	Environment:	grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW26Y503
Water Level Meter	Make: Heron	Model: Dipper	Serial Number: 19FF211192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	16	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	244	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

2w2 @ 15°C

ICV (Initial Calibration Verification)

Time: 950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.88	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.09	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1500

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.16	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/24/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	49°-61° 10mph wind NE	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202131M2

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO		InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	98.1%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 9:06

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 14:07

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD, AP	Location:	Duck Creek
Weather:	50-59°F p. sunny, wind ESE 9-16 mph	Environment:	grass
Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number: 846000
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202 131 ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC Zero (DI)	9.34	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1925.5	µS/cm	±5%	↓	↓	↓	Geotech	3GF1197	Jun-24
ORP	246.1	mV	±15 mV	↓	↓	↓	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	98.72	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0925

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	↓	↓	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	963.35	µS/cm	±5%	↓	↓	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1402

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC 1000	981.08	µS/cm	±5%	↓	↓	↓	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.81	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/25/25

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	60° - 78° F sunny wind 5 mph	Environment:	grass mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW2GYJD3
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NC	—	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NC	—	MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	NC	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	yes	0.0	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1770	µS/cm	±5%	P	yes	2000	Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	87.4	%	97-100%	P	yes	98.4	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)

Time: 0950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	956	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments: Unable to do end day cal due to screen on Horiba, breaking at last well

Signature: [signature] Date: 4/30/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP AM	Location:	Duck Creek
Weather:	78-79 sunny wind 7mph S	Environment:	Grass, mud
Multiparameter Water Meter	Make: AT	Model: 600	Serial Number: 816000
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.			—	MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.			—	MSI	022361-01	12/27/2024
SC Zero (DI)	31.56	µS/cm	0<25 µS/cm	F	Y	0.05	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040.5	µS/cm	±5%	P	N	—	Geotech	3GF1197	Jun-24
ORP		mV	±15 mV			—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1			—	Macron	#000228049	8/26/2025
DO (Saturated)	99.85	%	97-100%			—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.03	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1015

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.79	s.u.	±0.15 s.u.	F	Y 7.00	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1002.7	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1448

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1015.8	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.04	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/30/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek, Indian Creek
Weather:	66°F pr cloudy, wind ESE 9 mph	Environment:	grass, weeds
Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number: 739449
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.11	s.u.	±0.1 s.u.	F	Y	7.02	MSI	023051-02	2/21/2025
pH 10.00a	9.95	s.u.	±0.1 s.u.	P	N	NA	MSI	022361-01	12/27/2024
SC Zero (DI)	0.06	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1971	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	238.3	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.18	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	985	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1500

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1004.5	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.57	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: JD Date: 5/6/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JO, JB	Location:	Duck Creek, ICL
Weather:	77°F cloudy, wind SE 9-16 mph	Environment:	grass

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	739449	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	14.27	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1973.9	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	230.4	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.79	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 1059

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1018.9	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1440

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	995.86	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.11	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	5/8/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	73°C partly cloudy wind NW 15mph	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WU683C85	
Water Level Meter	Make: Solinst	Model: 101	Serial Number:	334509	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	240	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @20°C

ICV (Initial Calibration Verification)

Time: 1416

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	997	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments: Only one well sampled no end day calibration needed

Signature: [signature] Date: 5/28/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	77°, Sunny, 12mph wind	Environment:	Tall Grass
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make:	Model:	Serial Number:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.92	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2091	µS/cm	±5%				Geotech	3GJ1438 ~~3GP1197~~	Oct ~~Jun-24~~
ORP	232	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

BG 6/14/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0930

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.85	s.u.	±0.15 s.u.	P	Calibrated: 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	None	Proactive ~~Geotech~~	3GE1252 ~~2GP668~~	May-25 ~~Jun-24~~
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1013	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

BG 6/14/24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1058

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1008	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: JBohannan Date: 6/13/2024

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

August 29, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HG04314

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HG05251

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HG05733

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HH00162

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HG04314-13
Name: G60S
Matrix: Ground Water - Grab

Sampled: 07/23/24 15:39
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	4.5	mg/L		07/30/24 12:01	1	1.0	07/30/24 12:01	JSM	EPA 300.0 REV 2.1
Sulfate	70	mg/L		07/26/24 14:30	25	25	07/26/24 14:30	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.76	Feet		07/23/24 15:39	1		07/23/24 15:39	FIELD	Field*
Dissolved oxygen, Field	4.4	mg/L		07/23/24 15:39	1		07/23/24 15:39	FIELD	Field*
Oxidation Reduction Potential	-54.0	mV		07/23/24 15:39	1	-500	07/23/24 15:39	FIELD	Field*
pH, Field Measured	6.73	pH Units		07/23/24 15:39	1		07/23/24 15:39	FIELD	Field*
Specific Conductance, Field Measured	927.0	umhos/cm		07/23/24 15:39	1		07/23/24 15:39	FIELD	Field*
Temperature, Field Measured	17.4	°C		07/23/24 15:39	1		07/23/24 15:39	FIELD	Field*
Turbidity, Field Measured	110	NTU		07/23/24 15:39	1	0.00	07/23/24 15:39	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	460	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:25	1	0.250	07/30/24 14:25	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	580	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	14	ug/L		07/24/24 09:22	5	10	07/29/24 11:00	TJJ	EPA 6020A
Calcium	130	mg/L		07/24/24 09:22	5	0.20	07/31/24 12:52	TJJ	EPA 6020A
Magnesium	53	mg/L		07/24/24 09:22	5	0.10	07/31/24 12:52	TJJ	EPA 6020A
Potassium	0.71	mg/L		07/24/24 09:22	5	0.10	07/31/24 12:52	TJJ	EPA 6020A
Sodium	11	mg/L		07/24/24 09:22	5	0.10	07/31/24 12:52	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04314-14
Name: G57S
Matrix: Ground Water - Grab

Sampled: 07/23/24 11:53
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	18	mg/L		07/26/24 15:08	5	5.0	07/26/24 15:08	JSM	EPA 300.0 REV 2.1
Sulfate	48	mg/L		07/26/24 15:28	10	10	07/26/24 15:28	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	18.96	Feet		07/23/24 11:53	1		07/23/24 11:53	FIELD	Field*
Dissolved oxygen, Field	18	mg/L		07/23/24 11:53	1		07/23/24 11:53	FIELD	Field*
Oxidation Reduction Potential	-11.0	mV		07/23/24 11:53	1	-500	07/23/24 11:53	FIELD	Field*
pH, Field Measured	6.62	pH Units		07/23/24 11:53	1		07/23/24 11:53	FIELD	Field*
Specific Conductance, Field Measured	1037	umhos/cm		07/23/24 11:53	1		07/23/24 11:53	FIELD	Field*
Temperature, Field Measured	16.3	°C		07/23/24 11:53	1		07/23/24 11:53	FIELD	Field*
Turbidity, Field Measured	43.6	NTU		07/23/24 11:53	1	0.00	07/23/24 11:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	760	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:26	1	0.250	07/30/24 14:26	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	840	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	< 10	ug/L		07/24/24 09:22	5	10	07/29/24 11:03	TJJ	EPA 6020A
Calcium	170	mg/L		07/24/24 09:22	5	0.20	07/25/24 17:45	TJJ	EPA 6020A
Magnesium	110	mg/L		07/24/24 09:22	5	0.10	07/25/24 17:45	TJJ	EPA 6020A
Potassium	0.42	mg/L		07/24/24 09:22	5	0.10	07/25/24 17:45	TJJ	EPA 6020A
Sodium	12	mg/L		07/24/24 09:22	5	0.10	07/25/24 17:45	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-02
Name: G50S
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:50
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	13	mg/L		08/02/24 16:07	5	5.0	08/02/24 16:07	JSM	EPA 300.0 REV 2.1
Sulfate	45	mg/L		08/02/24 16:07	5	5.0	08/02/24 16:07	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.25	Feet		07/29/24 14:50	1		07/29/24 14:50	FIELD	Field*
Dissolved oxygen, Field	0.030	mg/L		07/29/24 14:50	1		07/29/24 14:50	FIELD	Field*
Oxidation Reduction Potential	-64.0	mV		07/29/24 14:50	1	-500	07/29/24 14:50	FIELD	Field*
pH, Field Measured	7.11	pH Units		07/29/24 14:50	1		07/29/24 14:50	FIELD	Field*
Specific Conductance, Field Measured	539.0	umhos/cm		07/29/24 14:50	1		07/29/24 14:50	FIELD	Field*
Temperature, Field Measured	20.0	°C		07/29/24 14:50	1		07/29/24 14:50	FIELD	Field*
Turbidity, Field Measured	17.8	NTU		07/29/24 14:50	1	0.00	07/29/24 14:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	0.261	mg/L		08/07/24 13:45	1	0.250	08/07/24 13:45	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	360	mg/L		08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	14	ug/L		07/30/24 09:17	5	10	08/06/24 13:27	TJJ	EPA 6020A
Calcium	84	mg/L		07/30/24 09:17	5	0.20	08/02/24 15:47	TJJ	EPA 6020A
Magnesium	35	mg/L		07/30/24 09:17	5	0.10	08/02/24 15:47	TJJ	EPA 6020A
Potassium	0.38	mg/L		07/30/24 09:17	5	0.10	08/02/24 15:47	TJJ	EPA 6020A
Sodium	8.1	mg/L		07/30/24 09:17	5	0.10	08/02/24 15:47	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-11
Name: G51S
Matrix: Ground Water - Grab

Sampled: 07/29/24 10:53
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L	Q4	08/02/24 22:53	5	5.0	08/02/24 22:53	JSM	EPA 300.0 REV 2.1
Sulfate	60	mg/L	Q4	08/02/24 23:13	25	25	08/02/24 23:13	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.17	Feet		07/29/24 10:53	1		07/29/24 10:53	FIELD	Field*
Dissolved oxygen, Field	5.8	mg/L		07/29/24 10:53	1		07/29/24 10:53	FIELD	Field*
Oxidation Reduction Potential	-108	mV		07/29/24 10:53	1	-500	07/29/24 10:53	FIELD	Field*
pH, Field Measured	7.03	pH Units		07/29/24 10:53	1		07/29/24 10:53	FIELD	Field*
Specific Conductance, Field Measured	777.0	umhos/cm		07/29/24 10:53	1		07/29/24 10:53	FIELD	Field*
Temperature, Field Measured	16.0	°C		07/29/24 10:53	1		07/29/24 10:53	FIELD	Field*
Turbidity, Field Measured	167	NTU		07/29/24 10:53	1	0.00	07/29/24 10:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	350	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/07/24 13:59	1	0.250	08/07/24 13:59	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	350	mg/L	M	08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	< 10	ug/L		07/30/24 09:17	5	10	08/06/24 14:15	TJJ	EPA 6020A
Calcium	96	mg/L		07/30/24 09:17	5	0.20	08/02/24 16:33	TJJ	EPA 6020A
Magnesium	41	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:33	TJJ	EPA 6020A
Potassium	0.41	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:33	TJJ	EPA 6020A
Sodium	6.9	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:33	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-14
Name: G54L
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:48
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	66	mg/L		08/03/24 02:45	25	25	08/03/24 02:45	JSM	EPA 300.0 REV 2.1
Sulfate	120	mg/L		08/03/24 02:45	25	25	08/03/24 02:45	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.28	Feet		07/29/24 14:48	1		07/29/24 14:48	FIELD	Field*
Dissolved oxygen, Field	0.78	mg/L		07/29/24 14:48	1		07/29/24 14:48	FIELD	Field*
Oxidation Reduction Potential	-96.0	mV		07/29/24 14:48	1	-500	07/29/24 14:48	FIELD	Field*
pH, Field Measured	6.63	pH Units		07/29/24 14:48	1		07/29/24 14:48	FIELD	Field*
Specific Conductance, Field Measured	1780	umhos/cm		07/29/24 14:48	1		07/29/24 14:48	FIELD	Field*
Temperature, Field Measured	19.2	°C		07/29/24 14:48	1		07/29/24 14:48	FIELD	Field*
Turbidity, Field Measured	7.00	NTU		07/29/24 14:48	1	0.00	07/29/24 14:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	760	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/07/24 14:00	1	0.250	08/07/24 14:00	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	940	mg/L		08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	< 10	ug/L		07/30/24 09:17	5	10	08/06/24 14:27	TJJ	EPA 6020A
Calcium	200	mg/L		07/30/24 09:17	5	0.20	08/02/24 16:45	TJJ	EPA 6020A
Magnesium	100	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:45	TJJ	EPA 6020A
Potassium	0.45	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:45	TJJ	EPA 6020A
Sodium	15	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:45	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-15
Name: G54S
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:12
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	7.5	mg/L		08/03/24 03:05	1	1.0	08/03/24 03:05	JSM	EPA 300.0 REV 2.1
Sulfate	32	mg/L		08/03/24 03:24	5	5.0	08/03/24 03:24	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.62	Feet		07/29/24 14:12	1		07/29/24 14:12	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		07/29/24 14:12	1		07/29/24 14:12	FIELD	Field*
Oxidation Reduction Potential	-137	mV		07/29/24 14:12	1	-500	07/29/24 14:12	FIELD	Field*
pH, Field Measured	6.81	pH Units		07/29/24 14:12	1		07/29/24 14:12	FIELD	Field*
Specific Conductance, Field Measured	1020	umhos/cm		07/29/24 14:12	1		07/29/24 14:12	FIELD	Field*
Temperature, Field Measured	17.4	°C		07/29/24 14:12	1		07/29/24 14:12	FIELD	Field*
Turbidity, Field Measured	32.1	NTU		07/29/24 14:12	1	0.00	07/29/24 14:12	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	490	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/07/24 14:02	1	0.250	08/07/24 14:02	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	490	mg/L		08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	14	ug/L		07/30/24 09:17	5	10	08/06/24 14:31	TJJ	EPA 6020A
Calcium	180	mg/L		07/30/24 09:17	5	0.20	08/02/24 16:49	TJJ	EPA 6020A
Magnesium	83	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:49	TJJ	EPA 6020A
Potassium	0.71	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:49	TJJ	EPA 6020A
Sodium	10	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:49	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05733-03
Name: G60L
Matrix: Ground Water - Grab

Sampled: 07/31/24 14:05
Received: 07/31/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	7.3	mg/L		08/09/24 14:06	1	1.0	08/09/24 14:06	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/09/24 14:06	1	0.250	08/09/24 14:06	JSM	EPA 300.0 REV 2.1
Sulfate	150	mg/L		08/13/24 16:08	100	100	08/13/24 16:08	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.72	Feet		07/31/24 14:05	1		07/31/24 14:05	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		07/31/24 14:05	1		07/31/24 14:05	FIELD	Field*
Oxidation Reduction Potential	206	mV		07/31/24 14:05	1	-500	07/31/24 14:05	FIELD	Field*
pH, Field Measured	6.10	pH Units		07/31/24 14:05	1		07/31/24 14:05	FIELD	Field*
Specific Conductance, Field Measured	886.0	umhos/cm		07/31/24 14:05	1		07/31/24 14:05	FIELD	Field*
Temperature, Field Measured	20.0	°C		07/31/24 14:05	1		07/31/24 14:05	FIELD	Field*
Turbidity, Field Measured	183	NTU		07/31/24 14:05	1	0.00	07/31/24 14:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	290	mg/L	H	08/16/24 10:11	1	10	08/16/24 10:11	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L	H	08/16/24 10:11	1	10	08/16/24 10:11	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	560	mg/L		08/05/24 10:28	1	26	08/06/24 15:01	LAL2	SM 2540 C-2011
Total Metals - PIA									
Boron	33	ug/L		08/01/24 08:51	5	10	08/01/24 16:36	TJJ	EPA 6020A
Calcium	100	mg/L		08/01/24 08:51	5	0.20	08/01/24 16:36	TJJ	EPA 6020A
Magnesium	41	mg/L		08/01/24 08:51	5	0.10	08/01/24 16:36	TJJ	EPA 6020A
Potassium	0.44	mg/L		08/01/24 08:51	5	0.10	08/01/24 16:36	TJJ	EPA 6020A
Sodium	39	mg/L		08/01/24 08:51	5	0.10	08/01/24 16:36	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05733-06
Name: G64L
Matrix: Ground Water - Grab

Sampled: 07/31/24 11:43
Received: 07/31/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.0	mg/L		08/09/24 17:22	1	1.0	08/09/24 17:22	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/09/24 17:22	1	0.250	08/09/24 17:22	JSM	EPA 300.0 REV 2.1
Sulfate	57	mg/L		08/12/24 22:28	25	25	08/12/24 22:28	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.92	Feet		07/31/24 11:43	1		07/31/24 11:43	FIELD	Field*
Dissolved oxygen, Field	5.1	mg/L		07/31/24 11:43	1		07/31/24 11:43	FIELD	Field*
Oxidation Reduction Potential	191	mV		07/31/24 11:43	1	-500	07/31/24 11:43	FIELD	Field*
pH, Field Measured	6.96	pH Units		07/31/24 11:43	1		07/31/24 11:43	FIELD	Field*
Specific Conductance, Field Measured	1050	umhos/cm		07/31/24 11:43	1		07/31/24 11:43	FIELD	Field*
Temperature, Field Measured	18.0	°C		07/31/24 11:43	1		07/31/24 11:43	FIELD	Field*
Turbidity, Field Measured	6.90	NTU		07/31/24 11:43	1	0.00	07/31/24 11:43	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	510	mg/L	H	08/16/24 10:11	1	10	08/16/24 10:11	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L	H	08/16/24 10:11	1	10	08/16/24 10:11	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	640	mg/L		08/05/24 10:28	1	26	08/06/24 15:01	LAL2	SM 2540 C-2011
Total Metals - PIA									
Boron	10	ug/L		08/01/24 08:51	5	10	08/01/24 16:48	TJJ	EPA 6020A
Calcium	120	mg/L		08/01/24 08:51	5	0.20	08/01/24 16:48	TJJ	EPA 6020A
Magnesium	71	mg/L		08/01/24 08:51	5	0.10	08/01/24 16:48	TJJ	EPA 6020A
Potassium	0.18	mg/L		08/01/24 08:51	5	0.10	08/01/24 16:48	TJJ	EPA 6020A
Sodium	9.4	mg/L		08/01/24 08:51	5	0.10	08/01/24 16:48	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HH00162-02
Name: X301
Matrix: Ground Water - Grab

Sampled: 08/01/24 13:59
Received: 08/01/24 15:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	460	mg/L		08/09/24 18:52	250	250	08/09/24 18:52	JSM	EPA 300.0 REV 2.1
Sulfate	820	mg/L		08/12/24 23:23	250	250	08/12/24 23:23	JSM	EPA 300.0 REV 2.1
Field - PIA									
Dissolved oxygen, Field	3.1	mg/L		08/01/24 13:59	1		08/01/24 13:59	FIELD	Field*
Oxidation Reduction Potential	209	mV		08/01/24 13:59	1	-500	08/01/24 13:59	FIELD	Field*
pH, Field Measured	6.68	pH Units		08/01/24 13:59	1		08/01/24 13:59	FIELD	Field*
Specific Conductance, Field Measured	3660	umhos/cm		08/01/24 13:59	1		08/01/24 13:59	FIELD	Field*
Temperature, Field Measured	28.2	°C		08/01/24 13:59	1		08/01/24 13:59	FIELD	Field*
Turbidity, Field Measured	4.60	NTU		08/01/24 13:59	1	0.00	08/01/24 13:59	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	580	mg/L		08/13/24 09:57	1	10	08/13/24 09:57	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/13/24 09:57	1	10	08/13/24 09:57	CFM	SM 2320 B-2011*
Fluoride	1.35	mg/L		08/14/24 14:22	1	0.250	08/14/24 14:22	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2700	mg/L		08/08/24 00:00	1	26	08/08/24 00:00	LAL2	SM 2540 C-2011
Total Metals - PIA									
Boron	7800	ug/L		08/08/24 09:13	10	20	08/12/24 12:03	TJJ	EPA 6020A
Calcium	380	mg/L		08/08/24 09:13	5	0.20	08/09/24 16:37	TJJ	EPA 6020A
Magnesium	250	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:37	TJJ	EPA 6020A
Potassium	6.4	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:37	TJJ	EPA 6020A
Sodium	53	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:37	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HH00162-03
Name: G64S
Matrix: Ground Water - Grab

Sampled: 08/01/24 13:12
Received: 08/01/24 15:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.8	mg/L		08/09/24 19:46	1	1.0	08/09/24 19:46	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		08/09/24 19:46	1	0.250	08/09/24 19:46	JSM	EPA 300.0 REV 2.1
Sulfate	23	mg/L	Q4	08/09/24 20:04	5	5.0	08/09/24 20:04	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.32	Feet		08/01/24 13:12	1		08/01/24 13:12	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		08/01/24 13:12	1		08/01/24 13:12	FIELD	Field*
Oxidation Reduction Potential	6.00	mV		08/01/24 13:12	1	-500	08/01/24 13:12	FIELD	Field*
pH, Field Measured	6.89	pH Units		08/01/24 13:12	1		08/01/24 13:12	FIELD	Field*
Specific Conductance, Field Measured	781.0	umhos/cm		08/01/24 13:12	1		08/01/24 13:12	FIELD	Field*
Temperature, Field Measured	20.9	°C		08/01/24 13:12	1		08/01/24 13:12	FIELD	Field*
Turbidity, Field Measured	17.7	NTU		08/01/24 13:12	1	0.00	08/01/24 13:12	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		08/13/24 09:57	1	10	08/13/24 09:57	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/13/24 09:57	1	10	08/13/24 09:57	CFM	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	420	mg/L	M	08/08/24 00:00	1	26	08/08/24 00:00	LAL2	SM 2540 C-2011
Total Metals - PIA									
Boron	19	ug/L		08/08/24 09:13	5	10	08/12/24 11:23	TJJ	EPA 6020A
Calcium	100	mg/L		08/08/24 09:13	5	0.20	08/09/24 16:29	TJJ	EPA 6020A
Magnesium	45	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:29	TJJ	EPA 6020A
Potassium	0.62	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:29	TJJ	EPA 6020A
Sodium	12	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:29	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HH00162-05
Name: G02S
Matrix: Ground Water - Grab

Sampled: 08/01/24 10:30
Received: 08/01/24 15:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.3	mg/L		08/09/24 21:17	1	1.0	08/09/24 21:17	JSM	EPA 300.0 REV 2.1
Fluoride	0.263	mg/L		08/09/24 21:17	1	0.250	08/09/24 21:17	JSM	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		08/09/24 21:17	1	1.0	08/09/24 21:17	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.51	Feet		08/01/24 10:30	1		08/01/24 10:30	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		08/01/24 10:30	1		08/01/24 10:30	FIELD	Field*
Oxidation Reduction Potential	-89.0	mV		08/01/24 10:30	1	-500	08/01/24 10:30	FIELD	Field*
pH, Field Measured	6.63	pH Units		08/01/24 10:30	1		08/01/24 10:30	FIELD	Field*
Specific Conductance, Field Measured	818.0	umhos/cm		08/01/24 10:30	1		08/01/24 10:30	FIELD	Field*
Temperature, Field Measured	17.3	°C		08/01/24 10:30	1		08/01/24 10:30	FIELD	Field*
Turbidity, Field Measured	18.3	NTU		08/01/24 10:30	1	0.00	08/01/24 10:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		08/13/24 09:57	1	10	08/13/24 09:57	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/13/24 09:57	1	10	08/13/24 09:57	CFM	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	430	mg/L		08/08/24 09:21	1	26	08/08/24 13:03	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	56	ug/L		08/08/24 09:13	5	10	08/12/24 12:10	TJJ	EPA 6020A
Calcium	99	mg/L		08/08/24 09:13	5	0.20	08/09/24 16:44	TJJ	EPA 6020A
Magnesium	37	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:44	TJJ	EPA 6020A
Potassium	0.84	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:44	TJJ	EPA 6020A
Sodium	14	mg/L		08/08/24 09:13	5	0.10	08/09/24 16:44	TJJ	EPA 6020A

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B438838 - SW 3015 - EPA 6020A									
Blank (B438838-BLK1)				Prepared: 07/24/24 Analyzed: 07/29/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B438838-BS1)				Prepared: 07/24/24 Analyzed: 07/29/24					
Boron	544	ug/L		555.6		98	80-120		
Calcium	5.68	mg/L		5.556		102	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Potassium	5.61	mg/L		5.556		101	80-120		
Sodium	5.68	mg/L		5.556		102	80-120		
Matrix Spike (B438838-MS1)	**Sample: HG04314-01**			Prepared: 07/24/24 Analyzed: 07/29/24					
Boron	18600	ug/L	Q1	555.6	18700	NR	75-125		
Calcium	406	mg/L	Q4	5.556	430	NR	75-125		
Magnesium	146	mg/L	Q4	5.556	150	NR	75-125		
Potassium	9.37	mg/L		5.556	4.20	93	75-125		
Sodium	108	mg/L	Q4	5.556	110	NR	75-125		
Matrix Spike Dup (B438838-MSD1)	**Sample: HG04314-01**			Prepared: 07/24/24 Analyzed: 07/29/24					
Boron	18700	ug/L	Q2	555.6	18700	13	75-125	0.5	20
Calcium	409	mg/L	Q4	5.556	430	NR	75-125	0.7	20
Magnesium	145	mg/L	Q4	5.556	150	NR	75-125	0.6	20
Potassium	9.32	mg/L		5.556	4.20	92	75-125	0.5	20
Sodium	108	mg/L	Q4	5.556	110	NR	75-125	0.2	20
Batch B439147 - No Prep - SM 2540 C-2011									
Blank (B439147-BLK1)				Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439147-BS1)				Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	963	mg/L		1000		96	84.4-107		
Duplicate (B439147-DUP1)	**Sample: HG04314-01**			Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	2500	mg/L			2400			4	5
Duplicate (B439147-DUP2)	**Sample: HG04314-11**			Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	725	mg/L			700			4	5
Batch B439246 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439246-CCB1)				Prepared & Analyzed: 07/25/24					
Sulfate	0.00	mg/L							
Chloride	0.958	mg/L							
Calibration Check (B439246-CCV1)				Prepared & Analyzed: 07/25/24					
Sulfate	4.99	mg/L		5.000		100	90-110		
Chloride	4.78	mg/L		5.000		96	90-110		
Matrix Spike (B439246-MS2)	**Sample: HG04314-01**			Prepared & Analyzed: 07/26/24					
Chloride	< 1.0	mg/L	Q4	1.500	400	NR	80-120		
Sulfate	1.67	mg/L	Q1	1.500	934	NR	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B439246-MS3)	**Sample: HG04314-11**			Prepared & Analyzed: 07/26/24					
Chloride	< 1.0	mg/L	Q4	1.500	20	NR	80-120		
Sulfate	1.65	mg/L	Q1	1.500	150	NR	80-120		
Matrix Spike Dup (B439246-MSD2)	**Sample: HG04314-01**			Prepared & Analyzed: 07/26/24					
Sulfate	1.68	mg/L	Q2	1.500	934	NR	80-120		20
Chloride	1.0E9	mg/L	Q4	1.500	400	NR	80-120		20
Matrix Spike Dup (B439246-MSD3)	**Sample: HG04314-11**			Prepared & Analyzed: 07/26/24					
Sulfate	1.65	mg/L	Q2	1.500	150	NR	80-120		20
Chloride	< 1.0	mg/L	Q4	1.500	20	NR	80-120		20
Batch B439349 - SW 3015 - EPA 6020A									
Blank (B439349-BLK1)				Prepared: 07/30/24 Analyzed: 08/06/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B439349-BS1)				Prepared: 07/30/24 Analyzed: 08/06/24					
Boron	497	ug/L		555.6		89	80-120		
Calcium	5.36	mg/L		5.556		96	80-120		
Magnesium	5.62	mg/L		5.556		101	80-120		
Potassium	5.19	mg/L		5.556		93	80-120		
Sodium	5.51	mg/L		5.556		99	80-120		
Matrix Spike (B439349-MS1)	**Sample: HG05251-01**			Prepared: 07/30/24 Analyzed: 08/06/24					
Boron	516	ug/L		555.6	26.8	88	75-125		
Calcium	107	mg/L	Q4	5.556	118	NR	75-125		
Magnesium	52.6	mg/L	Q4	5.556	52.7	NR	75-125		
Potassium	5.26	mg/L		5.556	0.280	90	75-125		
Sodium	12.5	mg/L		5.556	7.98	82	75-125		
Matrix Spike Dup (B439349-MSD1)	**Sample: HG05251-01**			Prepared: 07/30/24 Analyzed: 08/06/24					
Boron	521	ug/L		555.6	26.8	89	75-125	1	20
Calcium	112	mg/L	Q4	5.556	118	NR	75-125	4	20
Magnesium	54.4	mg/L	Q4	5.556	52.7	30	75-125	3	20
Potassium	5.45	mg/L		5.556	0.280	93	75-125	4	20
Sodium	13.0	mg/L		5.556	7.98	90	75-125	4	20
Batch B439416 - No Prep - SM 4500-F C-2011									
Calibration Blank (B439416-CCB1)				Prepared & Analyzed: 07/30/24					
Fluoride	0.100	mg/L							
Calibration Blank (B439416-CCB2)				Prepared & Analyzed: 07/30/24					
Fluoride	0.0280	mg/L							
Calibration Check (B439416-CCV1)				Prepared & Analyzed: 07/30/24					
Fluoride	0.711	mg/L		0.7000		102	90-110		
Calibration Check (B439416-CCV2)				Prepared & Analyzed: 07/30/24					
Fluoride	0.688	mg/L		0.7000		98	90-110		
Matrix Spike (B439416-MS5)	**Sample: HG04314-07**			Prepared & Analyzed: 07/30/24					
Fluoride	1.14	mg/L		1.000	0.126	101	80-120		
Matrix Spike Dup (B439416-MSD5)	**Sample: HG04314-07**			Prepared & Analyzed: 07/30/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B439416-MSD5)	**Sample: HG04314-07**			Prepared & Analyzed: 07/30/24					
Fluoride	1.12	mg/L		1.000	0.126	100	80-120	2	20
Batch B439507 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439507-CCB1)				Prepared & Analyzed: 07/30/24					
Chloride	0.00	mg/L							
Calibration Check (B439507-CCV1)				Prepared & Analyzed: 07/30/24					
Chloride	5.06	mg/L		5.000		101	90-110		
Matrix Spike (B439507-MS1)	**Sample: HG04314-13**			Prepared & Analyzed: 07/30/24					
Chloride	6.1	mg/L		1.500	4.5	106	80-120		
Matrix Spike Dup (B439507-MSD1)	**Sample: HG04314-13**			Prepared & Analyzed: 07/30/24					
Chloride	6.1	mg/L		1.500	4.5	106	80-120	0.06	20
Batch B439582 - SW 3015 - EPA 6020A									
Blank (B439582-BLK1)				Prepared & Analyzed: 08/01/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B439582-BS1)				Prepared & Analyzed: 08/01/24					
Boron	524	ug/L		555.6		94	80-120		
Calcium	5.71	mg/L		5.556		103	80-120		
Magnesium	5.85	mg/L		5.556		105	80-120		
Potassium	5.84	mg/L		5.556		105	80-120		
Sodium	5.87	mg/L		5.556		106	80-120		
Matrix Spike (B439582-MS1)	**Sample: HG05733-01**			Prepared & Analyzed: 08/01/24					
Boron	554	ug/L		555.6	18.4	96	75-125		
Calcium	94.3	mg/L		5.556	89.5	87	75-125		
Magnesium	49.9	mg/L		5.556	44.8	92	75-125		
Potassium	6.40	mg/L		5.556	0.607	104	75-125		
Sodium	15.8	mg/L		5.556	10.1	102	75-125		
Matrix Spike Dup (B439582-MSD1)	**Sample: HG05733-01**			Prepared & Analyzed: 08/01/24					
Boron	558	ug/L		555.6	18.4	97	75-125	0.6	20
Calcium	94.8	mg/L		5.556	89.5	96	75-125	0.5	20
Magnesium	50.1	mg/L		5.556	44.8	95	75-125	0.4	20
Potassium	6.35	mg/L		5.556	0.607	103	75-125	0.8	20
Sodium	15.9	mg/L		5.556	10.1	104	75-125	0.8	20
Batch B439591 - No Prep - SM 2540 C-2011									
Blank (B439591-BLK1)				Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439591-BS1)				Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	950	mg/L		1000		95	84.4-107		
Duplicate (B439591-DUP1)	**Sample: HG05251-01**			Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	470	mg/L			450			4	5
Duplicate (B439591-DUP2)	**Sample: HG05251-11**			Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	425	mg/L	M		350			19	5

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B439866 - No Prep - SM 2540 C-2011									
Blank (B439866-BLK1)				Prepared: 08/05/24 Analyzed: 08/06/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439866-BS1)				Prepared: 08/05/24 Analyzed: 08/06/24					
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.4-107		
Batch B439870 - No Prep - SM 2320 B-2011									
Blank (B439870-BLK1)				Prepared & Analyzed: 08/01/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Duplicate (B439870-DUP1)	**Sample: HG04314-01**			Prepared & Analyzed: 08/01/24					
Alkalinity - bicarbonate as CaCO3	438	mg/L			425			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B439870-DUP2)	**Sample: HG04314-11**			Prepared & Analyzed: 08/01/24					
Alkalinity - bicarbonate as CaCO3	400	mg/L			388			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B439882 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439882-CCB1)				Prepared & Analyzed: 08/02/24					
Sulfate	0.00	mg/L							
Chloride	0.649	mg/L							
Calibration Check (B439882-CCV1)				Prepared & Analyzed: 08/02/24					
Chloride	5.04	mg/L		5.000		101	90-110		
Sulfate	5.13	mg/L		5.000		103	90-110		
Matrix Spike (B439882-MS1)	**Sample: HG05251-01**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	69.7	NR	80-120		
Matrix Spike (B439882-MS2)	**Sample: HG05251-11**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	60.4	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike Dup (B439882-MSD1)	**Sample: HG05251-01**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	69.7	NR	80-120	0	20
Matrix Spike Dup (B439882-MSD2)	**Sample: HG05251-11**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	60.4	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120	0	20
Batch B440104 - No Prep - SM 2540 C-2011									
Blank (B440104-BLK1)				Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B440104-BS1)				Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	973	mg/L		1000		97	84.4-107		
Duplicate (B440104-DUP1)	**Sample: HH00162-03**			Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	470	mg/L	M		415			12	5
Batch B440143 - No Prep - SM 2320 B-2011									
Duplicate (B440143-DUP1)	**Sample: HG05251-11**			Prepared & Analyzed: 08/07/24					
Alkalinity - bicarbonate as CaCO3	350	mg/L			350			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B440172 - No Prep - SM 4500-F C-2011									
Calibration Blank (B440172-CCB1)				Prepared & Analyzed: 08/07/24					
Fluoride	0.00500	mg/L							
Calibration Check (B440172-CCV1)				Prepared & Analyzed: 08/07/24					
Fluoride	0.712	mg/L		0.7000		102	90-110		
Matrix Spike (B440172-MS4)	**Sample: HG05251-15**			Prepared & Analyzed: 08/07/24					
Fluoride	1.19	mg/L		1.000	0.197	99	80-120		
Matrix Spike Dup (B440172-MSD4)	**Sample: HG05251-15**			Prepared & Analyzed: 08/07/24					
Fluoride	1.20	mg/L		1.000	0.197	100	80-120	0.9	20
Batch B440226 - SW 3015 - EPA 6020A									
Blank (B440226-BLK1)				Prepared: 08/08/24 Analyzed: 08/12/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B440226-BS1)				Prepared: 08/08/24 Analyzed: 08/12/24					
Boron	599	ug/L		555.6		108	80-120		
Calcium	5.77	mg/L		5.556		104	80-120		
Magnesium	5.95	mg/L		5.556		107	80-120		
Potassium	5.81	mg/L		5.556		105	80-120		
Sodium	5.94	mg/L		5.556		107	80-120		
Matrix Spike (B440226-MS1)	**Sample: HH00162-03**			Prepared: 08/08/24 Analyzed: 08/12/24					
Boron	590	ug/L		555.6	18.8	103	75-125		
Calcium	105	mg/L	Q4	5.556	101	68	75-125		
Magnesium	49.8	mg/L		5.556	45.3	82	75-125		
Potassium	6.41	mg/L		5.556	0.617	104	75-125		
Sodium	18.0	mg/L		5.556	12.4	100	75-125		
Matrix Spike Dup (B440226-MSD1)	**Sample: HH00162-03**			Prepared: 08/08/24 Analyzed: 08/12/24					
Boron	583	ug/L		555.6	18.8	102	75-125	1	20
Calcium	105	mg/L		5.556	101	78	75-125	0.5	20
Magnesium	50.1	mg/L		5.556	45.3	88	75-125	0.6	20
Potassium	6.39	mg/L		5.556	0.617	104	75-125	0.2	20
Sodium	18.1	mg/L		5.556	12.4	102	75-125	0.7	20
Batch B440228 - No Prep - SM 2540 C-2011									
Blank (B440228-BLK1)				Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B440228-BS1)				Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	950	mg/L		1000		95	84.4-107		
Duplicate (B440228-DUP1)	**Sample: HH00162-11**			Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	10500	mg/L			10200			2	5
Duplicate (B440228-DUP2)	**Sample: HH00162-13**			Prepared & Analyzed: 08/08/24					
Solids - total dissolved solids (TDS)	670	mg/L			655			2	5
Batch B440549 - IC No Prep - EPA 300.0 REV 2.1									

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2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B440549-CCB1)				Prepared & Analyzed: 08/09/24					
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B440549-CCV1)				Prepared & Analyzed: 08/09/24					
Sulfate	4.85	mg/L		5.000		97	90-110		
Chloride	4.98	mg/L		5.000		100	90-110		
Fluoride	5.16	mg/L		5.000		103	90-110		
Matrix Spike (B440549-MS1)	**Sample: HG05733-01**			Prepared & Analyzed: 08/09/24					
Fluoride	1.68	mg/L		1.500	0.256	95	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Matrix Spike (B440549-MS2)	**Sample: HH00162-03**			Prepared & Analyzed: 08/09/24					
Sulfate	1.00E9	mg/L	Q4	1.500	22.7	NR	80-120		
Chloride	4.5	mg/L		1.500	2.8	112	80-120		
Fluoride	1.92	mg/L		1.500	0.219	113	80-120		
Matrix Spike (B440549-MS3)	**Sample: HH00162-11**			Prepared & Analyzed: 08/10/24					
Sulfate	1.00E9	mg/L	Q4	1.500	2640	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	2500	NR	80-120		
Matrix Spike Dup (B440549-MSD1)	**Sample: HG05733-01**			Prepared & Analyzed: 08/09/24					
Fluoride	1.66	mg/L		1.500	0.256	94	80-120	1	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Matrix Spike Dup (B440549-MSD2)	**Sample: HH00162-03**			Prepared & Analyzed: 08/09/24					
Fluoride	1.88	mg/L		1.500	0.219	111	80-120	2	20
Sulfate	1.00E9	mg/L	Q4	1.500	22.7	NR	80-120	0	20
Chloride	4.4	mg/L		1.500	2.8	109	80-120	0.8	20
Matrix Spike Dup (B440549-MSD3)	**Sample: HH00162-11**			Prepared & Analyzed: 08/10/24					
Sulfate	1.00E9	mg/L	Q4	1.500	2640	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	2500	NR	80-120	0	20
Batch B440662 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B440662-CCB1)				Prepared & Analyzed: 08/12/24					
Sulfate	0.00	mg/L							
Calibration Check (B440662-CCV1)				Prepared & Analyzed: 08/12/24					
Sulfate	4.89	mg/L		5.000		98	90-110		
Batch B440802 - No Prep - SM 2320 B-2011									
Duplicate (B440802-DUP1)	**Sample: HH00162-03**			Prepared & Analyzed: 08/13/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	412	mg/L			425			3	10
Batch B440819 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B440819-CCB1)				Prepared & Analyzed: 08/13/24					
Sulfate	0.00	mg/L							
Calibration Check (B440819-CCV1)				Prepared & Analyzed: 08/13/24					
Sulfate	4.98	mg/L		5.000		100	90-110		
Batch B440849 - No Prep - SM 4500-F C-2011									
Calibration Blank (B440849-CCB1)				Prepared & Analyzed: 08/14/24					

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2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B440849-CCB1)				Prepared & Analyzed: 08/14/24					
Fluoride	0.0280	mg/L							
Calibration Blank (B440849-CCB2)				Prepared & Analyzed: 08/14/24					
Fluoride	0.0140	mg/L							
Calibration Check (B440849-CCV1)				Prepared & Analyzed: 08/14/24					
Fluoride	0.698	mg/L		0.7000		100	90-110		
Calibration Check (B440849-CCV2)				Prepared & Analyzed: 08/14/24					
Fluoride	0.710	mg/L		0.7000		101	90-110		
Matrix Spike (B440849-MS5)	**Sample: HG05733-04**			Prepared & Analyzed: 08/14/24					
Fluoride	1.25	mg/L		1.000	0.211	104	80-120		
Matrix Spike Dup (B440849-MSD5)	**Sample: HG05733-04**			Prepared & Analyzed: 08/14/24					
Fluoride	1.28	mg/L		1.000	0.211	107	80-120	2	20
Batch B441043 - No Prep - SM 2320 B-2011									
Blank (B441043-BLK1)				Prepared & Analyzed: 08/16/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Duplicate (B441043-DUP1)	**Sample: HG05733-03**			Prepared & Analyzed: 08/16/24					
Alkalinity - bicarbonate as CaCO3	288	mg/L			288			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions and method modifications used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

H	Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.
M	Analyte failed to meet the required acceptance criteria for duplicate analysis.
Q1	Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q2	Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q4	The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager

HG04314

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location: IL
STATE:

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM24D			7/23/24	1137		5	✓		✓																				
2	OR11				1314		5	✓		✓																				
3	OR11 Dup				1314		5	✓		✓																				
4	OR20				1430		5	✓		✓																				
5	OM17D				1526		5	✓		✓																				
6	OM100D				1403		5	✓		✓																				
7	OM100S				1316		5	✓		✓																				
8	OM101D				1213		5	✓		✓																				
9	OM101S				1113		5	✓		✓																				
10	BA02				1428		4	✓		✓																				
11	BA01				1250		4	✓		✓																				
12	BA01 Dup				1250		4	✓		✓																				
13	G-60S				1539		4	✓		✓																				
14	G57S				1153		4	✓		✓																				
15	G58S				1251		3	✓		✓																				
16	G59S			↓	1412		3	✓		✓																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0		7/23/24	1649							
					7/23/24	1619	4.1	Y	N	Y

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jason Davi
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 7/23/24

HG05251 VB

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Page: 1 of 10
Company: ~~Vistra Corp-Duck Creek~~	Report To: Brian Voelker	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:	Site Location IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	STATE:

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GSOL		WT	G	7/29/24	1326		3	X		X																			
2	GSOS		WT	G	7/29/24	1450		4	X		X																			
3	GS3S		WT	G	7/29/24	1216		3	X		X																			
4	GS3L		WT	G	7/29/24	1113		3	X		X																			
5	BA02L		WT	G	7/29/24	1115		4	X		X																			
6	OR06A		WT	G	7/29/24	1215		5	X		X																			
7	OMOUS		WT	G	7/24/24	1351		5	X		X																			
8	OR02		WT	G	7/29/24	1452		5	X		X																			
9	GSIL		WT	G	7/29/24	1052		3	X		X																			
10	GSIL Dup		WT	G	7/29/24	1052		3	X		X																			
11	GSIS		WT	G	7/29/24	1053		4	X		X																			
12	GS2L		WT	G	7/29/24	1153		3	X		X																			
13	GS2S		WT	G	7/29/24	1240		3	X		X																			
14	GSHL		WT	G	7/29/24	1448		4	X		X																			
15	GSHS		WT	G	7/29/24	1412		3	X		X																			
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		7/29/24	1613							
				VB	7/29/24	1613		Y	Y	Y

IR Gun # 13 Correction Factor (Deg C) +0.1

Observed Temp (Deg C) 3.2 Corrected Temp (Deg C) 3.3

Delivery Method: FedEx UPS Walk-in USPS Other

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rumberger

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 07/29/24

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information: | **Section B** Required Project Information: | **Section C** Invoice Information: | Page: 1 of 10

Section A	Section B	Section C	
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:	Site Location STATE: IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G15S	GW	G	7/31/24	1232		3	2		1																		
2	G55S	GW	G	7/31/24	1525		3	2		1																		
3	G60L	GW	G	7/31/24	1405		4	2		2																		
4	R61L	GW	G	7/31/24	1258		4	2		2																		
5	G61S	GW	G	7/31/24	1247		4	2		2																		
6	G64L	GW	G	7/31/24	1143		4	2		2																		
7	G67L	GW	G	7/31/24	1405		3	2		1																		
8	G67S	GW	G	7/31/24	1410		3	2		1																		
9	G06L	GW	G	7/31/24	1238		3	2		1																		
10	G07L 7/31/24 dup	GW	G	7/31/24	1325		3	2		1																		
11	G08L 7/31/24 dup	GW	G	7/31/24	1419		3	2		1																		
12	G09L 7/31/24 dup	GW	G	7/31/24	1527		3	2		1																		
13	G09L Dup 7/31/24 dup	GW	G	7/31/24	1527		3	2		1																		
14																												
15																												
16																												

IR Gun #: 13 Correction Factor (Deg C): -1

Observed Temp (Deg C): 5.5 Corrected Temp (Deg C): 3.6

Delivery Method: FedEx UPS Walk-in USPS Other

HG5733

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0	JBohannan	7/31/24	1635				
					7-31-24	1635	3.6

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jordan Bohannan

SIGNATURE of SAMPLER: JBohannan DATE Signed (MM/DD/YY): 7/31/2024

Courier

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: ~~Vistra Corp Duck Creek~~	Report To: ~~Brian Voelker~~	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:	Site Location IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	STATE: HH00162 VS

Requested Analysis Filtered (Y/N)

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE. Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	Field Blank	WT	G	8/1/24	1340		12	X	X	X																				
2	X301	WT	G	8/1/24	1359		3	X		X																				
3	G645	WT	G	8/1/24	1312		4	X		X																				
4	G655	WT	G	8/1/24	1128		3	X		X																				
5	G625	WT	G	8/1/24	1030		4	X		X																				
6	G56L	GW	G	8/1/24	1312		3	X		X																				
7	P60	GW	G	8/1/24	1219		4	X		X																				
8	G65L	GW	G	8/1/24	1354		3	X		X																				
9	G71L	GW	G	8/1/24	0950		3	X		X																				
10	G72L	GW	G	8/1/24	1130		3	X		X																				
11	R705	GW	G	8/1/24	1036		3	X		X																				
12	R13L	GW	G	8/1/24	0926		1			X																				
13	G57L	GW	G	8/1/24	1214		3	X		X																				
14	G58L	GW	G	8/1/24	1188		3	X		X																				
15	G59L + Dup 8/1/24	GW	G	8/1/24	1041		6	X		X																				
16	G62L	GW	G	8/1/24	1329		3	X		X																				

IR Gun # 149 Correction Factor (Deg C) +0.0

Observed Temp (Deg C) 4.3 Corrected Temp (Deg C) 4.3

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		8/1/24	1506				
					8/1/24	1506	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Tom Robertson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 08/01/24

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G54C	DC_G54!C	203	GMF	7/22/24	1347	36.24		JB
OM100S	DC_OM100#S	201-202	AP1/2	7/22/24	1132	11.88	TD = 28.03	JD
OM100D	DC_OM100&D	201-202	AP1/2	7/22/24	1130	11.71	TD: 56.31	JD
OM101S	DC_OM101#S	201-202	AP1/2	7/22/24	1534	15.42	TD = 19.97	JD
OM101D	DC_OM101&D	201-202	AP1/2	7/22/24	1536	17.00	TD: 36.33	JD
OM12D	DC_OM12&D	201-202	AP1/2	7/22/24	1234	16.20	TD - 54.83	APP
OM15D	DC_OM15&D	201-202	AP1/2	7/22/24	1009	24.54		JD
OM17D	DC_OM17&D	201-202	AP1/2	7/22/24	1058	14.73	TD=43.27	JD
OM26	DC_OM26	201-202	AP1/2	7/22/24	1408	30.15	TD: 62.08	JD
OM27	DC_OM27	201-202	AP1/2	7/22/24	1401	32.34	TD=62.20	JD
OM28	DC_OM28	201-202	AP1/2	7/22/24	1356	46.97	TD=68.95	JD
XPW01	DC_XPW01	201-202	AP1/2	7/22/24	1632	6.98	Dry	APP
BA01C	DC-BA01!C	205	BAB	7/22/24	1200	12.74		APP
BA01L	DC-BA01!L	205	BAB	7/22/24	1159	12.71		APP
G02L	DC-G02!L	204	LF	07/22/24	1100	8.15	DTB - 1800	KMO
G02D	DC-G02&D	204	LF	07/22/24	1105	21.05	78.51 - DTB	KMO
G03L	DC-G03!L	204	LF	07/22/24	1001	6.42	26.43 - DTB	KMO
G03S	DC-G03#S	204	LF	07/22/24	1008	6.04	Pump -	KMO
G04L	DC-G04!L	204	LF	07/22/24	1111	14.70	17.04 - DTB	KMO
G04S	DC-G04#S	204	LF	07/22/24	1113	14.51	Pump -	KMO
G06L	DC-G06!L	204	LF	07/22/24	1533	19.70	23.41 - DTB	KMO
G06S	DC-G06#S	204	LF	07/22/24	1531	20.00	Pump	KMO
G07L	DC-G07!L	204	LF	07/22/24	1525	19.35	23.09 - DTB	KMO

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SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G08L	DC-G08!L	204	LF	07/22/24	1485	19.00	22.13-DTB	BWB
G09L	DC-G09!L	204	LF	07/22/24	1422	19.35	23.43-DTB	KWB
G09S	DC-G09#S	204	LF	07/22/24	1481	19.43	Pump	KWB
G12L	DC-G12!L	204	LF	07/22/24	1350	16.69	Pump	KWB
G12S	DC-G12#S	204	LF	07/22/24	1351	18.69	Pump	KWB
G14L	DC-G14!L	204	LF	07/22/24	1321	21.32	26.86-DTB	KWB
G15L	DC-G15!L	204	LF	07/22/24	1240	24.56	34.57-DTB	KWB
G15S	DC-G15#S	204	LF	07/22/24	1239	27.00	Pump	KWB
G16L	DC-G16!L	204	LF	07/22/24	1233	24.84	Pump	KWB
G50L	DC-G50!L	203	GMF	7/22/24	1333	11.56		JB
G51L	DC-G51!L	203	GMF	7/22/24	1049	12.22		JB
G52L	DC-G52!L	203	GMF	7/22/24	1019	24.34		JB
G52S	DC-G52#S	203	GMF	7/22/24	1027	29.64	Lock hard to open + close	JB
G53L	DC-G53!L	203	GMF	7/22/24	1107	10.96		JB
G53S	DC-G53#S	203	GMF	7/22/24	1111	12.84	Lock rusting	JB
G55L	DC-G55!L	203	GMF	7/22/24	1345	18.61		AW
G55S	DC-G55#S	203	GMF	7/22/24	1344	18.54		AW
G56L	DC-G56!L	203	GMF	7/22/24	1132	17.83		AW
G56S	DC-G56#S	203	GMF	7/22/24	1133	17.20		AW
G57L	DC-G57!L	203	GMF	7/22/24	1204	18.81		AW
G58L	DC-G58!L	203	GMF	07/22/24	1623	22.13	33.87-DTB	KWB
G58S	DC-G58#S	203	GMF	07/22/24	1622	22.07	Pump	KWB
G59L	DC-G59!L	203	GMF	~~7/22/24~~ 7/22/24	~~1021~~ 1626	19.19	Needed different key Right key almost broke 35.36-DTB	~~JB~~ JB 7/22

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SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G59S	DC-G59#S	203	GMF	7/22/24	1220	30.99		JB
G61S	DC-G61#S	203	GMF	7/22/24	1204	17.62		JB
G62L	DC-G62!L	203	GMF	7/22/24	1148	18.72		JB
G63L	DC-G63!L	203	GMF	7/22/24	1705	21.65		AP
G63S	DC-G63#S	203	GMF	7/22/24	1706	22.47		AM
G65L	DC-G65!L	203	GMF	7/22/24	12:47	16.46	Peristaltic	AW
G65S	DC-G65#S	203	GMF	7/22/24	10:58	16.76	Dedicated Bladder	AW
G66L	DC-G66!L	203	GMF	7/22/24	11:12	14.20	Peristaltic	AW
G66S	DC-G66#S	203	GMF	7/22/24	11:10	14.59	Dedicated Bladder	AW
G67L	DC-G67!L	203	GMF	7/22/24	11:23	11.71	Peristaltic	AW
G67S	DC-G67#S	203	GMF	7/22/24	11:22	12.67	Dedicated Bladder	AW
G68L	DC-G68!L	203	GMF	7/22/24	13:25	12.30	Portable Pump DTB: 17.10	AW
G68S	DC-G68#S	203	GMF	7/22/24	13:27	13.50	Dedicated Bladder	AW
G69L	DC-G69!L	203	GMF	7/22/24	13:08	12.16	Portable Pump DTB: 27.80	AW
G69S	DC-G69#S	203	GMF	7/22/24	13:11	15.93	Dedicated Bladder	AW
G70L	DC-G70!L	203	GMF	7/22/24	10:28	15.99	Dedicated Bladder	AW
G71L	DC-G71!L	203	GMF	7/22/24	10.33	22.72	Peristaltic	AW
G71S	DC-G71#S	203	GMF	07/22/24	1557	23.55	Pump	KB
G72L	DC-G72!L	203	GMF	7/22/24	10:43	21.92	Peristaltic	AW
G73L	DC-G73!L	203	GMF	07/22/24	1559	23.73	Pump	KB
L103	DC-L103	204	LF	07/22/24	1304		ARTISAN	KB
OM05S	DC-OM05#S	201-202	AP1/2	7/22/24	1331	20.64		AP
OM08	DC-OM08	201-202	AP1/2	7/22/24	1319	13.20	TD- 27.0	JD

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OM09	DC-OM09	201-202	AP1/2	7/22/24	1347	3.58	TD = 27.04	JD
OM10	DC-OM10	201-202	AP1/2	7/22/24	1108	9.23	TD: 21.90	
OM15	DC-OM15	201-202	AP1/2	7/22/24	1012	20.94		JD
OM22S	DC-OM22#S	201-202	AP1/2	7/22/24	1302	17.07	TD: 40.21	
OM23S	DC-OM23#S	201-202	AP1/2	7/22/24	1247	40.81	TD = 46.15	
OM25D	DC-OM25&D	201-202	AP1/2	7/22/24	1233	57.73	TD: 77.48	
OR03S	DC-OR03#S	201-202	AP1/2	7/22/24	1444	45.22		APP
OR05D	DC-OR05&D	201-202	AP1/2	7/22/24	1328	21.32		APP
OR14S	DC-OR14#S	201-202	AP1/2	7/22/24	1356	6.58		APP
OR18	DC-OR18	201-202	AP1/2	7/22/24	1141	17.59	53.07 = TD	KWG
P01L	DC-P01!L	204	LF	07/22/24	1018	8.36	82.33 - DTB	KWG
P01S	DC-P01#S	204	LF	07/22/24	1020	8.27	29.66 - DTB	KWG
P01I	DC-P01$I	204	LF	07/22/24	1014	8.53	46.96 - DTB	KWG
P02S	DC-P02#S	204	LF	07/22/24	1057	13.84	91.86 - DTB	KWG
P04S	DC-P04#S	204	LF	07/22/24	1113	14.51	SAME AS GW45	KWG
P05L	DC-P05!L	204	LF	07/22/24	1124	3.04	14.92 - DTB	KWG
P05S	DC-P05#S	204	LF	07/22/24	1641	3.19	PUMP	KWG
P05D	DC-P05&D	204	LF	07/22/24	1644	5.09	45.93 - DTB	KWG
P36L	DC-P36!L	204	LF	07/22/24	1512	9.60	PUMP	KWG
P36S	DC-P36#S	204	LF	07/22/24	1513	9.26	31.44 - DTB	KWG
P36D	DC-P36&D	204	LF	07/22/24	1515	10.30	24.28 - DTB	KWG
P37L	DC-P37!L	204	LF	07/22/24	1401	12.36	PUMP	KWG
P37D	DC-P37&D	204	LF	07/22/24	1403	14.19	45.19 - DTB	KWG

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P38L	DC-P38!L	204	LF	07/22/24	1313	14.72	DTB-19.72	KMD
P38S	DC-P38#S	204	LF	07/22/24	1316	14.08	DTB-22.32	KMD
P39L	DC-P39!L	204	LF	07/22/24	1207	4.72	DTB-15.08	KMD
P39S	DC-P39#S	204	LF	07/22/24	1202	4.85	DTB-26.28	KMD
P39D	DC-P39&D	204	LF	07/22/24	1204	12.34	DTB 43.57	KMD
P40L	DC-P40!L	204	LF	07/22/24	1555 6.51 ~~20.46~~ KMD	6.51	DTB-20.416	KMD
P40S	DC-P40#S	204	LF	07/22/24	1557	5.72	DTB-35.33	KMD
P41L	DC-P41!L	204	LF	07/22/24	1639	5.51	DTB-12.14	KMD
P41S	DC-P41#S	204	LF	07/22/24	1638 ~~4.90~~	7.90 ~~31.4~~	DTB-31.48	KMD
P41D	DC-P41&D	204	LF	07/22/24	1637	34.20	69.02	KMD
P42L	DC-P42!L	204	LF	07/22/24	—	—	BROKEN	KMD
P42S	DC-P42#S	204	LF	07/22/24	1633	5.33	31.56-DTB	KMD
P42I1	DC-P42$I1	204	LF	07/22/24	1632	5.64	42.23-DTB	KMD
P42I2	DC-P42%I2	204	LF	07/22/24	1630	31.69	57.31	KMD
P42D	DC-P42&D	204	LF	07/22/24	1629	36.84	DTB-77.52	KMD
P52	DC-P52	203	GMF	07/22/24	1620	12.08	DTB-28.27	JD
P57L	DC-P57!L	203	GMF	07/22/24	1614	4.38	DTB-22.97	JD
P57S	DC-P57#S	203	GMF	07/22/24	1616	3.94	DTB-34.35	JD
P60	DC-P60	203	GMF	07/22/24	1211	18.46		JD
P61	DC-P61	203	GMF	07/22/24	1315	6.78		JD
P62	DC-P62	203	GMF	07/22/24	1250	8.71		JD
P63	DC-P63	203	GMF	07/22/24	1254	12.49		JD
P64	DC-P64	203	GMF	07/22/24	1303	13.32		JD

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SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
R10L	DC-R10!L	204	LF	07/22/24	1628	19.89		
R11L	DC-R11!L	204	LF	07/22/24	1354	10.53	DTB-26.42	KMD
R13L	DC-R13!L	204	LF	07/22/24	1345	1906	DTB-29.97	KMD
R61L	DC-R61!L	203	GMF	07/22/24	1202	17.48		
R72S	DC-R72#S	203	GMF	07/22/24	1040	21.91	PERISTALTIC	
T43L	DC-T43!L	204	LF	07/22/24	1428	5.65	PUMP	KMD
T44L	DC-T44!L	204	LF	07/22/24	1430	9.52	PUMP	KMD
T45L	DC-T45!L	204	LF	07/22/24	1455	7.40	PUMP	KMD
T46L	DC-T46!L	204	LF	07/22/24	1518	5.89	PUMP	KMD
X301	DC-X301-leachate	203	GMF	072224	1626	49.30		

U:6/19/23 GKJ

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SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.
Transducer data on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC
Event: DC-24Q3 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	7/22/24	1156	13.29	21615533	Yes	574.1342	Yes	H		APP
BA02	DC-BA02	205	BAB	7/22/24	1216	8.93	21615636	yes	571.2715	Yes	H		APP
BA02L	DC-BA02!L	205	BAB	7/22/24	1219	8.74	21615682	yes	571.3186	Yes	H		APP
BA03	DC-BA03	205	BAB	7/22/24	1124	8.05	21615637	Yes	570.478	yes	H		APP
BA03L	DC-BA03!L	205	BAB	7/22/24	1120	7.47	21615687	Yes	568.6324	Yes	H		APP
BA04	DC-BA04	205	BAB	7/22/24	1109	4.71	21615631	Yes	573.6833	Yes	H		APP
BA05	DC-BA05#	205	BAB	7/22/24	1143	17.97	21615540	Yes	577.8438	Yes	H		APP
BA06	DC-BA06	205	BAB	7/22/24	1135	20.15	21615525	Yes	575.7928	Yes	H		APP
G02S	DC-G02#S	204	LF	07/22/24	1100	7.86	21615554	Yes	614.01	Yes	H		KD
G50S	DC-G50#S	203	GMF	7/22/24	1328	12.54	21615535	Yes	611.28	Yes	High		JB
G51S	DC-G51#S	203	GMF	7/22/24	1044	11.42	21615691	Yes	606.80	Yes	High		JB
G54L	DC-G54!L	203	GMF	7/22/24	0958	20.93	21615690	Yes	607.96	Yes	High		JB
G54S	DC-G54#S	203	GMF	7/22/24	1005	22.29	21615684	Yes	607.08	Yes	High		JB
G57S	DC-G57#S	203	GMF	7/22/24	1201	18.46	21615683	Yes	604.14	Yes	H		AW
G60L	DC-G60!L	203	GMF	7/22/24	1040	9.89	21615678	Yes	606.01	Yes	High		JB
G60S	DC-G60#S	203	GMF	7/22/24	1238	21.21	21615677	Yes	593.75	Yes	High		JB
G64L	DC-G64!L	203	GMF	7/22/24	1130	20.81	21615688	Yes	607.60	Yes	High		JB
G64S	DC-G64#S	203	GMF	7/22/24	1127	22.21	21615632	Yes	600.96	Yes	High		JB

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SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.
Transducer data on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC
Event: DC-24Q3 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OM01	DC-OM01	201-202	AP1/2	7/22/24	1409	9.16	21615685	Yes	586.1435	Yes	H		JD
OM04S	DC-OM04#S	201-202	AP1/2	7/22/24	1426	19.64	21615542	Yes	587.5785	Yes	H		AP
OM07	DC-OM07	201-202	AP1/2	7/22/24	1300	11.34	21615541	NO	-	NO	-	NO Transducer	AP
OM12	DC-OM12	201-202	AP1/2	7/22/24	1239	15.17	21615527	NO	—	NO	—	NO Transducer	AP
OM16	DC-OM16	201-202	AP1/2	7/22/24	1047	26.46	21615539	Yes	582.6077	Yes	H		JD
OM17	DC-OM17	201-202	AP1/2	7/22/24	1055	11.20	21615693	Yes	580.6229	Yes	H		JD
OM21	DC-OM21	201-202	AP1/2	7/22/24	1416	9.47	21615593	Yes	596.9011	Yes	H		AP
OM22D	DC-OM22&D	201-202	AP1/2	7/22/24	1300	16.80	21615592	Yes	582.2973	Yes	H		JD
OM23D	DC-OM23&D	201-202	AP1/2	7/22/24	1244	37.64	21615591	Yes	575.6738	Yes	H		JD
OM24D	DC-OM24&D	201-202	AP1/2	7/22/24	1220	3.49	21615522	Yes	573.4653	Yes	H		JD
OM25S	DC-OM25#S	201-202	AP1/2	7/22/24	1229	57.97	21615681	Yes	571.2313	Yes	H		JD
OR02	DC-OR02	201-202	AP1/2	7/22/24	1453	4.91	21615679	Yes	596.3070	Yes	H		AP
OR03D	DC-OR03&D	201-202	AP1/2	7/22/24	1445	44.70	21615577	Yes	583.1636	Yes	H		AP
OR04D	DC-OR04&D	201-202	AP1/2	7/22/24	1428	21.09	21615570	Yes	586.5686	Yes	H		AP
OR06A	DC-OR06!A	201-202	AP1/2	7/22/24	1318	13.45	21615692	Yes	581.9741	Yes	H		AP
OR11	DC-OR11	201-202	AP1/2	7/22/24	1433	30.31	21615686	Yes	565.9783	Yes	H		JD
OR13S	DC-OR13#S	201-202	AP1/2	7/22/24	1341	12.41	21615676	Yes	590.1160	Yes	H		AP
OR13D	DC-OR13&D	201-202	AP1/2	7/22/24	1344	12.85	21564135	Yes	589.7038	Yes	H		AP

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SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.
Transducer data on SAR-4 form may be collected at anytime during the sampling event.

Plant: DC
Event: DC-24Q3 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-202	AP1/2	7/22/24	1356	9.57	21615611	yes	589.595	yes	H		APP
OR19	DC-OR19	201-202	AP1/2	7/22/24	1245	20.81	21615634	Yes	576.956	yes	H		APP
OR20	DC-OR20	201-202	AP1/2	7/22/24	1429	20.85	21615610	Yes	566.709	Yes	H		APP
RG01	DC-RG01	?	?	7/22/24	1009	—	21628685	~	—	NO	~~R~~ APP 7/22/24	Record Serial No.	APP

unable to connect to laptop

Notes:
Batt = battery
bmp = below measuring point
ft = feet
H = high
L = low
M = medium
R = replaced

Duck Creek

WELL/SAMPLE POINT G02S **Purge Method:** Bladder

Date: 8/1/2024 Start Time: 0920 Last Quarter: Bladder Finish/Sample Time: 1030

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 8.51 ft Total Purge Volume: 1900 mL

Water Column Length: _____ ft

Well Water Volume: _____ L Total Drawdown: 0.60 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	0936	9.31	100	6.64	868	17.43	-72	1.53	36.3
2	0939	9.40	100	6.61	831	17.39	-82	1.46	27.9
3	0942	9.48	100	6.63	818	17.32	-89	1.38	18.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.		
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(1)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 9.11 ft

Comments

Sampler's Signature:

BG

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
R10L	DC-R10!L	204	LF	07/22/24	1628	19.89		
R11L	DC-R11!L	204	LF	07/22/24	1354	10.53	DTB-26.42	KMD
R13L	DC-R13!L	204	LF	07/22/24	1345	1906	DTB-29.97	KMD
R61L	DC-R61!L	203	GMF	07/22/24	1202	17.48		
R72S	DC-R72#S	203	GMF	07/22/24	1040	21.91	PERISTALTIC	
T43L	DC-T43!L	204	LF	07/22/24	1428	5.65	PUMP	KMD
T44L	DC-T44!L	204	LF	07/22/24	1430	9.52	PUMP	KMD
T45L	DC-T45!L	204	LF	07/22/24	1455	7.40	PUMP	KMD
T46L	DC-T46!L	204	LF	07/22/24	1518	5.89	PUMP	KMD
X301	DC-X301-leachate	203	GMF	07/22/24	1626	49.30		

U:6/19/23 GKJ

BG

WELL/SAMPLE POINT G50S **Purge Method:** Bladder

Last Quarter: Bladder

Date: 7/29/2024 Start Time: 1340 Finish/Sample Time: 1450

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 13.25 ft Total Purge Volume: 1900 mL

Water Column Length: 24.05 ft

Well Water Volume: 14.55 L Total Drawdown: 4.23 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1353	15.37	100	7.27	542	20.13	-82	0.00	41.8
2	1356	15.64	100	7.24	544	20.06	-76	0.00	15.7
3	1359	15.81	100	7.11	539	20.00	-64	0.03	17.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.		
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 17.48 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT G51S **Purge Method:** Compressor

Last Quarter: Bladder

Date: 7/29/2024 Start Time: 1020 Finish/Sample Time: 1053

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 13.17 ft Total Purge Volume: 1600 mL

Water Column Length: 19 ft

Well Water Volume: 11.56 L Total Drawdown: 12.37 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1032	16.81	200	7.07	780	16.06	-118	5.87	227
2	1034	17.01	200	7.00	787	16.04	-119	5.79	204
3	1036	17.23	200	7.03	777	16.01	-108	5.78	167
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ■ None ☐ Slight ☐ Mod. ☐ Strong

Color ■ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ■ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 25.54 ft

Comments

Sampler's Signature: JBohannon

BCa

Duck Creek

WELL/SAMPLE POINT G54L **Purge Method:** Peristaltic

Date: 7/29/24 Start Time: 13:42 Last Quarter: Peristaltic Finish/Sample Time: 14:48

Well Depth (Bottom) From MP: 40.15 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 21.28 ft Total Purge Volume: ~~1000~~ mL

Water Column Length: 18.87 ft 1600 BG 8/2/24

Well Water Volume: 11.43 L Oakton pH: 6.60 AW 7/29/24 Total Drawdown: 1.90 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:54	22.86	100	~~6.49~~	1780	18.97	-90	0.92	5.8
2	13:57	23.02	100	6.63	1780	19.03	-92	0.85	6.3
3	14:00	23.12	100	6.63	1780	19.18	-94	0.78	7.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba **Check pH if reading is below 6.5**

Secondary pH Meter: Oakton

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 23.18 ft

Comments

Sampler's Signature: Andy Peterson

BG

Duck Creek

WELL/SAMPLE POINT G54S **Purge Method:** Compressor
Last Quarter: Bladder

Date: 7/29/2024 Start Time: 1327 Finish/Sample Time: 1412

Well Depth (Bottom) From MP: 51.26 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 22.62 ft Total Purge Volume: 1600 mL

Water Column Length: 28.64 ft

Well Water Volume: 17.34 L Total Drawdown: 5.42 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1337	25.37	200	6.81	1030	12.43	-139	1.07	32.3
2	1339	25.60	200	6.81	1030	17.34	-139	1.05	29.5
3	1341	26.02	200	6.81	1020	17.35	-137	1.02	32.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba **Check pH if reading is below 6.5**

Secondary pH Meter: —

Sample Appearance:

Odor: ■ None ☐ Slight ☐ Mod. ☐ Strong

Color ■ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ■ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
	Rad (P, 2.5L, HNO3)

(3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 28.04 ft

Comments

Sampler's Signature: JBohannon

BG

Duck Creek

WELL/SAMPLE POINT G57S **Purge Method:** BLADDER

Last Quarter: Bladder

Date: 07/23/24 Start Time: 1040 Finish/Sample Time: 1153

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 18.96 ft Total Purge Volume: 1300 mL

Water Column Length: 18.44 ft

Well Water Volume: 2.95 L Total Drawdown: ~~0.58~~ 0.58 ft AMD

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1103	19.70	100	6.64	1035	16.23	-18	17.98	45.00
2	1106	19.70	100	6.63	1035	16.29	-16	17.84	42.30
3	1109	19.70	100	6.62	1037	16.26	-11	17.90	43.60
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA **Check pH if reading is below 6.5 or above 7.5**

Secondary pH Meter: _____

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 19.54 ft

Comments

Sampler's Signature:

BG

WELL/SAMPLE POINT G60S **Purge Method:** BLADDER

Last Quarter: Bladder

Date: 07/23/22 Start Time: 1433 Finish/Sample Time: 1539

Well Depth (Bottom) From MP: 39.20 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: ~~21.76~~ KMD ft 21.76 Total Purge Volume: 1300 mL

Water Column Length: 17.44 ft

Well Water Volume: 2.79 L Total Drawdown: 0.67 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1500	21.99	100	6.72	923	17.37	-52	4.32	124
2	1503	22.06	100	6.73	925	17.34	-53	4.40	118
3	1506	22.13	100	6.73	927	17.36	-54	4.39	110
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Check pH if reading is below 6.5 or above 7.5

Secondary pH Meter: _____

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	KMD ✓
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	**Bottles**
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 22.45 ft

Comments RUSTED LOCK CANT CLOSE

Sampler's Signature: _____

WELL/SAMPLE POINT G64L **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 7/31/24 Start Time: 10:57 Finish/Sample Time: 11:43

Well Depth (Bottom) From MP: 30.25 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 20.92 ft Total Purge Volume: 1450 mL

Water Column Length: 9.33 ft

Well Water Volume: 5.65 L Total Drawdown: 0.97 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:10	21.22	150	7.01	1060	18.23	196	6.02	20.9
2	11:13	21.27	150	6.98	1050	18.10	191	5.47	15.5
3	11:16	21.33	150	6.96	1050	17.95	191	5.11	6.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba **Check pH if reading is below 6.5 or above 7.5**

Secondary pH Meter:

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 21.89 ft

Comments

Sampler's Signature: Ashley Whitaker

BG

Duck Creek

WELL/SAMPLE POINT G64S **Purge Method:** Bladder

Last Quarter: Bladder

Date: 8/1/2024 Start Time: 1204 Finish/Sample Time: 1312

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 22.32 ft Total Purge Volume: 1900 mL

Water Column Length: 17.18 ft

Well Water Volume: 10.39 L Total Drawdown: 0.71 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1216	22.78	100	6.91	791	20.94	20	1.40	12.9
2	1219	22.78	100	6.88	786	20.94	9	1.35	16.0
3	1222	22.78	100	6.89	781	20.90	6	1.28	17.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba **Check pH if reading is below 6.5 or above 7.5**

Secondary pH Meter: —

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 23.03 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT G60L **Purge Method:** Bladder

Last Quarter: Bladder

Date: 7/31/2024 Start Time: 1258 Finish/Sample Time: 1405

Well Depth (Bottom) From MP: 27.00 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 10.72 ft Total Purge Volume: 1900 mL

Water Column Length: 16.28 ft

Well Water Volume: 0.85 L Total Drawdown: 4.83 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1310	11.67	100	6.12	879	20.16	203	2.43	117
2	1313	11.83	100	6.11	884	20.10	202	2.48	175
3	1316	12.13	100	6.10	886	20.03	206	2.33	183
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 15.55 ft

Comments

Sampler's Signature:

BCa

Duck Creek

Drain Filled to

WELL/SAMPLE POINT X301 Pump House **Purge Method:** Bailer

Date: 8/1/2024 Start Time: 1347 Finish/Sample Time: 1359

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1									
	1352	—	—	6.68	3660	28.25	209	3.14	4.6
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
	Rad (P, 2.5L, HNO3)

(3)

Filtered	
Qty	**Bottles**
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Comments

Sampler's Signature:

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD	Location:	Duck Creek
Weather:	77-86°F persons wind W 7-10mph	Environment:	woods

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUC83C85	
Water Level Meter	Make: QED	Model: MP-30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	6.72	s.u.	±0.1 s.u.	F	Y	7.01	MSI	023334-01	12/7/2025
pH 10.00a	9.68	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%	P	N	NA	Proactive	3GJ1438	Oct-24
ORP	95	mV	±15 mV	F	Y	226	Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	97.89	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.9	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1003

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	7.10	s.u.	±0.15 s.u.	P		Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	975	µS/cm	±5%	P		Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.06	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.8	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/23/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	86-63 sunny wind 4mph WSW	Environment:	landfill, forest, Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19FE220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.88	s.u.	±0.1 s.u.	F		4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	N	—	MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N	—	MSI	024037-01	2/21/2026
SC Zero (DI)	75	µS/cm	0<25 µS/cm	F	Y	25	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	N	—	Proactive	3GJ1438	Oct-24
ORP	202	mV	±15 mV	F	Y	223	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.9	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0921

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?		Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	N		Proactive	3GE1074	May-25
pH 7.00b	7.14	s.u.	±0.15 s.u.	P	N		Proactive	3GE1252	May-25
pH 10.00b	10.39	s.u.	±0.15 s.u.	F	Y	9.99	Geotech	3GA1134	Jan-25
SC 1000	398	µS/cm	±5%	F	Y	1010	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore Date: 7-23-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	81°-86°F Windy Sunny SW 6mph	Environment:	Woods, grass
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: YL9KJ9HA
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	No	—	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	No	—	MSI	024037-01	2/21/2026
SC Zero (DI)	~~34~~ 13	µS/cm	0<25 µS/cm	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	No	—	Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV	P	No	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.04	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

AM 7/23/24

Approx. every 8 hrs, unless only one well

223 @ 26°C

ICV (Initial Calibration Verification)					Time: 1025			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.10	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	987	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1532				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	—	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	No	—	MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%	P	No	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	No	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/23/2024

BGL

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCKY CREEK
Weather:	75° SUNNY 4 MPH SW	Environment:	GRASSY

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	V7320PKK	
Water Level Meter	Make: HERON	Model: WT	Serial Number:	AFF2111192 HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.36	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2016	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV				Reagents ~~Insite~~	840664 ~~3GI1011~~	Apr-25 ~~Jun-24~~
DO (Zero pt)	0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

BG 8/2/24

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0948

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1531

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1003	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:  Date: 07/23/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	70°-85°F Sunny Wind NW 5mph	Environment:	Grass Woods

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	YL9KJ9HA	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO	–	MSI	024037-01	2/21/2026
SC Zero (DI)	14	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	–	Proactive	3GJ1438	Oct-24
ORP	221	mV	±15 mV	P	NO	–	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	Nd	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1011			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	–	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	–	Proactive	3GE1252	May-25
pH 10.00b	10.11	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	988	µS/cm	±5%	P	–	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1540				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	–	MSI	024037-01	2/21/2026
SC 1000	985	µS/cm	±5%	P	NO	–	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	ND	–	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	Nd	✓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD	Location:	Duck Creek
Weather:	75-83° F p.sunny, wind WNW 7mph	Environment:	woods, weeds

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP-30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.66	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.85	s.u.	±0.1 s.u.	F	Y	7.01	MSI	023334-01	12/7/2025
pH 10.00a	10.24	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	P	N	NA	Proactive	3GJ1438	Oct-24
ORP	348	mV	±15 mV	F	Y	228	Reagents	8406644	Apr-25
DO (Zero pt)	0.07	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.19	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 1000

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.92	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	"	"	Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.	"	"	Geotech	3GA1134	Jan-25
SC 1000	986	µS/cm	±5%	"	"	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1545

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.	"	"	"	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	"	"	"	MSI	024037-01	2/21/2026
SC 1000	995	µS/cm	±5%	"	"	"	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	"	"	"	Macron	#000228049	8/26/2025
Turbidity (DI)	0.5	NTU	<2 NTU	"	"	"	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JB, AW	Location:	Duck Creek
Weather:	76°-83° Sunny 3mph Wind NE	Environment:	

Multiparameter Water Meter	Make: Horiba	Model: Diper-T U-5000	Serial Number:	V7320PKR	
Water Level Meter	Make: Heron	Model:	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.87	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	47	µS/cm	0<25 µS/cm	F	Yes	05	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	N/A	Proactive	3GJ1438	Oct-24
ORP	220	mV	±15 mV	P	No	N/A	Reagents InSitu	8406644 ~~3GJ1011~~	Apr-25 ~~Jun-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 9:15			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	None	Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 15:40				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO		MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO		MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	P	NO		Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Clinton landfill + Duck creek
Weather:	85°-65° cloudy wind from NW	Environment:	landfill grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AG7TK4XG	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19FF220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	22	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2618	µS/cm	±5%	F	Y	2000	Proactive	3GJ1438	Oct-24
ORP	224	mV	±15 mV	P	N	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0952

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.65	s.u.	±0.15 s.u.	F	Y 3.99	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	N	Proactive	3GE1252	May-25
pH 10.00b	10.36	s.u.	±0.15 s.u.	F	Y 10.00	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	N	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1542

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1030	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore — Date: 7-24-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KAKEB DESKE	Location:	DUCK CREEK
Weather:	72° CLOUDY 7 MPH E	Environment:	GRASSY

Multiparameter Water Meter	Make: HORIBA	Model: U5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: HERON	Model: WT	Serial Number:	19FF220213MC	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1093	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	224	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0925

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	6.98	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1014	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1558

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1013	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 07/25/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	73°-83°F cloudy Wind 5-7mph	Environment:	grass, woods
Multiparameter Water Meter	Make: Horiba	Model: U50CD	Serial Number: YL9K59HA
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC Zero (DI)	16	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1970	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV	P	NO	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.2	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

230 @ 24°C

ICV (Initial Calibration Verification) Time: 0934

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.09	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	977	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1420

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC 1000	994	µS/cm	±5%	P	NO	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/25/2024

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Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW, JB	Location:	Duck Creek
Weather:	72°-83° Cloudy 7mph Winds	Environment:	Grassy, Overgrown
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKK
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.19	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.89	s.u.	±0.1 s.u.	F	yes	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.	P	NO	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	N/A	Proactive	3GJ1438	Oct-24
ORP	220	mV	±15 mV	P	NO	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.3	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:04

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.95	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 14:58

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.12	s.u.	±0.1 s.u.	F	Yes	4.01	MSI	023219-02	8/9/2025
pH 7.00a	6.91	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	P	NO		Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/25/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	77 - 83°F p. sunny wind E 7-13 mph	Environment:	woods + grass
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUC83C85
Water Level Meter	Make: QED	Model: MP-30	Serial Number: 30065

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%	↓	↓	↓	Proactive	3GJ1438	Oct-24
ORP	234	mV	±15 mV	↓	↓	↓	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	97.70	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.3	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0926			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	↓	↓	Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	992	µS/cm	±5%	↓	↓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1448			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%	↓	↓	↓	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:		Date:	7/25/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	76°-89°F sunny wind SW 11mph	Environment:	grass

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	AGS THU X6	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.94	s.u.	±0.1 s.u.	P	NC	—	MSI	023219-02	8/9/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NC	—	MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1940	µS/cm	±5%	P	NC	—	Proactive	3GJ1438	Oct-24
ORP	233	mV	±15 mV	P	NC	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NC	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

232 @ 23°C

ICV (Initial Calibration Verification) Time: 1006

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.12	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	956	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1501

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NC	—	MSI	023219-02	8/9/2025
pH 7.00a	7.09	s.u.	±0.1 s.u.	P	NC	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	P	NC	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NC	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/29/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	75°F, Cloudy, 10 mph wind	Environment:	Grassy, Muddy
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320 PIKK
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF 211192 HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.17	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.	P	No	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0009	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	No	N/A	Proactive	3GJ1438	Oct-24
ORP	218	mV	±15 mV	P	No	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.8	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.07	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0919

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	None	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1458

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1003	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: JBohannan — Date: 7/29/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	73-88°F p. sunny wind SSW 10-18 mph	Environment:	grass

Multiparameter Water Meter	Make: Hach	Model: U-5000	Serial Number:	WUG-83C85	
Water Level Meter	Make: QED	Model: MP-30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.70	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.80	s.u.	±0.1 s.u.	F	Y	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.22	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	15	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	N	NA	Proactive	3GJ1438	Oct-24
ORP	251	mV	±15 mV	F	Y	229	Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.11	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0947

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	7.12	s.u.	±0.15 s.u.	P	"	Proactive	3GE1252	May-25
pH 10.00b	10.02	s.u.	±0.15 s.u.	P	"	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	"	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1307

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	"	"	"	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	"	"	"	MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	"	"	"	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	"	"	"	Macron	#000228049	8/26/2025
Turbidity (DI)	0.5	NTU	<2 NTU	"	"	"	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	7/29/24 SD 7/29

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JB, AW	Location:	Duck Creek
Weather:	77°F, light rain, 5mph wind	Environment:	Grass, Mud

Multiparameter Water Meter	Make: Horiba	Model: U-5006	Serial Number:	V7320P1413	
Water Level Meter	Make: Heron	Model: DipperT	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.40	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0002	µS/cm	0<25 µS/cm	P	N/A	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1870	µS/cm	±5%	F	Yes	2000	Proactive	3GJ1438	Oct-24
ORP	218	mV	±15 mV	P	No	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.4	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0844

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.74	s.u.	±0.15 s.u.	F	Calibrated: 4.00	Proactive	3GE1074	May-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	None	Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	999	µS/cm	±5%	P	None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1407

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1007	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: JBohannan — Date: 7/30/2024

BGa

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	81° 91° C Sunny Wind 5 6mph	Environment:	grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U52G	Serial Number: A6JTM4X6
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	—	MSI	023219-02	8/9/2025
pH 7.00a	6.91	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC Zero (DI)	13	µS/cm	0<25 µS/cm	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	—	Proactive	3GJ1438	Oct-24
ORP	224	mV	±15 mV	P	NC	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.01	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	18.6	%	97-100%	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

2.30 @ 24 °C

ICV (Initial Calibration Verification)					Time: 0942			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.93	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.14	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	984	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1416				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NC	—	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	No	—	MSI	024037-01	2/21/2026
SC 1000	955	µS/cm	±5%	P	No	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	7/30/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD, KD	Location:	Duck Creek
Weather:	77-92°F cloudy wind S 7-10mph	Environment:	grass

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP-30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.96	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	228	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.32	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0905

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.93	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1430

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	7/30/24	Date:	

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	84°-91°F cloudy wind SW 5mph	Environment:	grassy
Multiparameter Water Meter	Make: Horiba	Model: U50	Serial Number: 3T85NNNF
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	No	–	MSI	024037-01	2/21/2026
SC Zero (DI)	13	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	–	Proactive	3GJ1438	Oct-24
ORP	188	mV	±15 mV	C	yes	235	Reagents	8406644	Apr-25
DO (Zero pt)	0.04	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.6	%	97-100%	P	No	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

233 @ 27°C

ICV (Initial Calibration Verification) Time: 1035

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	–	Proactive	3GE1074	May-25
pH 7.00b	6.92	s.u.	±0.15 s.u.	P	–	Proactive	3GE1252	May-25
pH 10.00b	9.87	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	–	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1532

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	No	–	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	No	–	MSI	024037-01	2/21/2026
SC 1000	985	µS/cm	±5%	P	No	–	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	1.3	NTU	<2 NTU	P	No	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/31/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JB AW	Location:	Duck Creek
Weather:	80°F, Cloudy,	Environment:	Grassy, Mud
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF 2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.88	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0003	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2012	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1019

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.90	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.95	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	998	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1535

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1011	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/31/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	81-92°F cloudy wind SW 7-9mph	Environment:	grass

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.66	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	N	NA	MSI	023334-01	12/7/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	↓	↓	↓	Proactive	3GJ1438	Oct-24
ORP	244	mV	±15 mV	↓	↓	↓	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	99.52	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 1008

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.92	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	↓	↓	Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	961	µS/cm	±5%	↓	↓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N.	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%	↓	↓	↓	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	JD	Date:	7/31/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Auron Pemberton	Location:	Duck Creek
Weather:	77°-87°F cloudy wind SW 5mph	Environment:	grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: 3T85NNNF
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	NO	–	MSI	024037-01	2/21/2026
SC Zero (DI)	14	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	–	Proactive	3GJ1438	Oct-24
ORP	279	mV	±15 mV	P	yes	229	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.5	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

229@25°C

ICV (Initial Calibration Verification) Time: 0900

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	–	Proactive	3GE1074	May-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	–	Proactive	3GE1252	May-25
pH 10.00b	9.94	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	✓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1412

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	✓	MSI	023219-02	8/9/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	✓	MSI	023334-01	12/7/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P	NO	✓	MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%	P	NO	–	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	✓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	~	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 8/1/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD, KO	Location:	Duck Creek
Weather:	76-86° F cloudy wind WSW 2-3mph	Environment:	grass

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.31	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	N	NA	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	↓	↓	↓	Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV	↓	↓	↓	Reagents	8406644	Apr-25
DO (Zero pt)	0.9	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	98.88	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0850			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	↓	↓	Proactive	3GE1252	May-25
pH 10.00b	10.02	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	960	µS/cm	±5%	↓	↓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1410				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N.	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023334-01	12/7/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC 1000	990	µS/cm	±5%	↓	↓	↓	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	8/1/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW, JB	Location:	Duck Creek
Weather:	77°F, Cloudy, 6mph wind	Environment:	Grass, Mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: V7320PKK
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF221911192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.14	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.89	s.u.	±0.1 s.u.	I	I	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P			Proactive	3GJ1438	Oct-24
ORP	219	mV	±15 mV	P			Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0842

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.92	s.u.	±0.15 s.u.		None	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.		None	Geotech	3GA1134	Jan-25
SC 1000	978	µS/cm	±5%		None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1340

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.89	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	987	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: JBohannon — Date: 9/1/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	93°-72° sunny wind 6 mph WSW	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	3T85NNNF	
Water Level Meter	Make: INT	Model: Heron	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	178	µS/cm	0<25 µS/cm	F	Y	25	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	3750	µS/cm	±5%	F	Y	2000	Proactive	3GJ1438	Oct-24
ORP	228	mV	±15 mV	P	N	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.55	mg/L	±0.1	F	Y	0.0	Macron	#000228049	8/26/2025
DO (Saturated)	104.8	%	97-100%	F	Y	98.9	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.4	NTU	<2 NTU	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0927			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	P		Proactive	3GE1252	May-25
pH 10.00b	9.91	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	216	µS/cm	±5%	F	Y 1000	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1501				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1030	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	Austin M	Date:	8/5/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK / INDIAN
Weather:	70°C CLOUDY 4 MPH W	Environment:	GRASS
Multiparameter Water Meter	Make: HORIBA OAKTON	Model: U-52	Serial Number: Y5X21HRP
Water Level Meter	Make: HERON	Model: WT	Serial Number: 19FF220213ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.29	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.01	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1998	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	231	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1006

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	999	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1020

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1012	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 08/13/24

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

December 06, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HJ03204

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HJ03498

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
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Peoria, IL 61615
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Work Order HJ03764

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
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Peoria, IL 61615
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Work Order HJ04300

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HJ04540

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HJ04816

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HJ03204-09
Name: G50S
Matrix: Ground Water - Grab

Sampled: 10/15/24 11:19
Received: 10/15/24 16:57
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L	Q4	10/22/24 20:53	5	5.0	10/22/24 20:53	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/22/24 20:02	1	0.250	10/22/24 20:02	JSM	EPA 300.0 REV 2.1
Sulfate	41	mg/L	Q4	10/22/24 20:53	5	5.0	10/22/24 20:53	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	18.96	Feet		10/15/24 11:19	1		10/15/24 11:19	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/15/24 11:19	1		10/15/24 11:19	FIELD	Field*
Oxidation Reduction Potential	30.0	mV		10/15/24 11:19	1	-500	10/15/24 11:19	FIELD	Field*
pH, Field Measured	10.5	pH Units		10/15/24 11:19	1		10/15/24 11:19	FIELD	Field*
Specific Conductance, Field Measured	707.0	umhos/cm		10/15/24 11:19	1		10/15/24 11:19	FIELD	Field*
Temperature, Field Measured	13.0	°C		10/15/24 11:19	1		10/15/24 11:19	FIELD	Field*
Turbidity, Field Measured	11.6	NTU		10/15/24 11:19	1	0.00	10/15/24 11:19	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		10/24/24 09:27	1	10	10/24/24 09:27	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/24/24 09:27	1	10	10/24/24 09:27	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	370	mg/L		10/22/24 10:54	1	26	10/22/24 15:56	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	16	ug/L		10/17/24 07:55	5	10	10/28/24 14:18	TJJ	EPA 6020A
Calcium	91	mg/L		10/17/24 07:55	5	0.20	10/25/24 17:24	TJJ	EPA 6020A
Magnesium	38	mg/L		10/17/24 07:55	5	0.10	10/25/24 17:24	TJJ	EPA 6020A
Potassium	0.30	mg/L		10/17/24 07:55	5	0.10	10/25/24 17:24	TJJ	EPA 6020A
Sodium	8.8	mg/L		10/17/24 07:55	5	0.10	10/25/24 17:24	TJJ	EPA 6020A

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HJ03498-11
Name: G57S
Matrix: Ground Water - Grab

Sampled: 10/16/24 13:50
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	16	mg/L		10/23/24 20:17	5	5.0	10/23/24 20:17	JSM	EPA 300.0 REV 2.1
Sulfate	47	mg/L		10/23/24 20:35	10	10	10/23/24 20:35	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.22	Feet		10/16/24 13:50	1		10/16/24 13:50	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/16/24 13:50	1		10/16/24 13:50	FIELD	Field*
Oxidation Reduction Potential	31.0	mV		10/16/24 13:50	1	-500	10/16/24 13:50	FIELD	Field*
pH, Field Measured	6.64	pH Units		10/16/24 13:50	1		10/16/24 13:50	FIELD	Field*
Specific Conductance, Field Measured	1450	umhos/cm		10/16/24 13:50	1		10/16/24 13:50	FIELD	Field*
Temperature, Field Measured	15.8	°C		10/16/24 13:50	1		10/16/24 13:50	FIELD	Field*
Turbidity, Field Measured	4.60	NTU		10/16/24 13:50	1	0.00	10/16/24 13:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	740	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/25/24 16:29	1	0.250	10/25/24 16:29	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	800	mg/L		10/22/24 10:57	1	26	10/22/24 16:51	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	11	ug/L		10/28/24 09:05	5	10	10/29/24 10:23	TJJ	EPA 6020A
Calcium	170	mg/L		10/28/24 09:05	5	0.20	10/28/24 17:12	TJJ	EPA 6020A
Magnesium	100	mg/L		10/28/24 09:05	5	0.10	10/28/24 17:12	TJJ	EPA 6020A
Potassium	0.60	mg/L		10/28/24 09:05	5	0.10	10/28/24 17:12	TJJ	EPA 6020A
Sodium	13	mg/L		10/28/24 09:05	5	0.10	10/28/24 17:12	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03498-12
Name: G54S
Matrix: Ground Water - Grab

Sampled: 10/16/24 12:51
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	6.1	mg/L		10/23/24 20:52	1	1.0	10/23/24 20:52	JSM	EPA 300.0 REV 2.1
Sulfate	28	mg/L		10/23/24 21:09	5	5.0	10/23/24 21:09	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.94	Feet		10/16/24 12:51	1		10/16/24 12:51	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/16/24 12:51	1		10/16/24 12:51	FIELD	Field*
Oxidation Reduction Potential	-75.0	mV		10/16/24 12:51	1	-500	10/16/24 12:51	FIELD	Field*
pH, Field Measured	6.69	pH Units		10/16/24 12:51	1		10/16/24 12:51	FIELD	Field*
Specific Conductance, Field Measured	982.0	umhos/cm		10/16/24 12:51	1		10/16/24 12:51	FIELD	Field*
Temperature, Field Measured	13.9	°C		10/16/24 12:51	1		10/16/24 12:51	FIELD	Field*
Turbidity, Field Measured	2.30	NTU		10/16/24 12:51	1	0.00	10/16/24 12:51	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/25/24 16:30	1	0.250	10/25/24 16:30	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	510	mg/L		10/22/24 10:57	1	26	10/22/24 16:51	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	31	ug/L		10/28/24 09:05	5	10	10/29/24 10:27	TJJ	EPA 6020A
Calcium	120	mg/L		10/28/24 09:05	5	0.20	10/28/24 17:15	TJJ	EPA 6020A
Magnesium	54	mg/L		10/28/24 09:05	5	0.10	10/28/24 17:15	TJJ	EPA 6020A
Potassium	0.98	mg/L		10/28/24 09:05	5	0.10	10/28/24 17:15	TJJ	EPA 6020A
Sodium	11	mg/L		10/28/24 09:05	5	0.10	10/28/24 17:15	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-08
Name: G60S
Matrix: Ground Water - Grab

Sampled: 10/17/24 11:56
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	4.6	mg/L		10/24/24 20:00	1	1.0	10/24/24 20:00	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/24/24 20:00	1	0.250	10/24/24 20:00	JSM	EPA 300.0 REV 2.1
Sulfate	70	mg/L		10/24/24 20:17	10	10	10/24/24 20:17	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.84	Feet		10/17/24 11:56	1		10/17/24 11:56	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/17/24 11:56	1		10/17/24 11:56	FIELD	Field*
Oxidation Reduction Potential	-56.0	mV		10/17/24 11:56	1	-500	10/17/24 11:56	FIELD	Field*
pH, Field Measured	7.30	pH Units		10/17/24 11:56	1		10/17/24 11:56	FIELD	Field*
Specific Conductance, Field Measured	731.0	umhos/cm		10/17/24 11:56	1		10/17/24 11:56	FIELD	Field*
Temperature, Field Measured	14.5	°C		10/17/24 11:56	1		10/17/24 11:56	FIELD	Field*
Turbidity, Field Measured	13.3	NTU		10/17/24 11:56	1	0.00	10/17/24 11:56	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	580	mg/L		10/23/24 10:25	1	26	10/23/24 16:20	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	15	ug/L		10/28/24 09:05	5	10	10/29/24 09:43	TJJ	EPA 6020A
Calcium	130	mg/L		10/28/24 09:05	5	0.20	10/28/24 16:26	TJJ	EPA 6020A
Magnesium	58	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:26	TJJ	EPA 6020A
Potassium	0.51	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:26	TJJ	EPA 6020A
Sodium	12	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:26	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-09
Name: G60L
Matrix: Ground Water - Grab

Sampled: 10/17/24 11:02
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.0	mg/L		10/24/24 20:34	1	1.0	10/24/24 20:34	JSM	EPA 300.0 REV 2.1
Sulfate	160	mg/L		10/24/24 21:08	25	25	10/24/24 21:08	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.1	Feet		10/17/24 11:02	1		10/17/24 11:02	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/17/24 11:02	1		10/17/24 11:02	FIELD	Field*
Oxidation Reduction Potential	58.0	mV		10/17/24 11:02	1	-500	10/17/24 11:02	FIELD	Field*
pH, Field Measured	8.28	pH Units		10/17/24 11:02	1		10/17/24 11:02	FIELD	Field*
Specific Conductance, Field Measured	656.0	umhos/cm		10/17/24 11:02	1		10/17/24 11:02	FIELD	Field*
Temperature, Field Measured	13.8	°C		10/17/24 11:02	1		10/17/24 11:02	FIELD	Field*
Turbidity, Field Measured	25.2	NTU		10/17/24 11:02	1	0.00	10/17/24 11:02	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	280	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 13:24	1	0.250	10/30/24 13:24	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	500	mg/L		10/23/24 10:25	1	26	10/23/24 16:20	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	23	ug/L		10/28/24 09:05	5	10	10/29/24 09:46	TJJ	EPA 6020A
Calcium	95	mg/L		10/28/24 09:05	5	0.20	10/28/24 16:30	TJJ	EPA 6020A
Magnesium	42	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:30	TJJ	EPA 6020A
Potassium	0.58	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:30	TJJ	EPA 6020A
Sodium	40	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:30	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04300-11
Name: G64L
Matrix: Ground Water - Grab

Sampled: 10/22/24 13:05
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.7	mg/L		10/28/24 15:55	1	1.0	10/28/24 15:55	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/28/24 15:55	1	0.250	10/28/24 15:55	JSM	EPA 300.0 REV 2.1
Sulfate	53	mg/L		10/28/24 16:31	25	25	10/28/24 16:31	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.01	Feet		10/22/24 13:05	1		10/22/24 13:05	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		10/22/24 13:05	1		10/22/24 13:05	FIELD	Field*
Oxidation Reduction Potential	92.0	mV		10/22/24 13:05	1	-500	10/22/24 13:05	FIELD	Field*
pH, Field Measured	6.86	pH Units		10/22/24 13:05	1		10/22/24 13:05	FIELD	Field*
Specific Conductance, Field Measured	1060	umhos/cm		10/22/24 13:05	1		10/22/24 13:05	FIELD	Field*
Temperature, Field Measured	15.3	°C		10/22/24 13:05	1		10/22/24 13:05	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/22/24 13:05	1	0.00	10/22/24 13:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	510	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	590	mg/L		10/28/24 09:31	1	26	10/28/24 15:05	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	< 10	ug/L		10/30/24 08:55	5	10	11/01/24 12:18	TJJ	EPA 6020A
Calcium	120	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:06	TJJ	EPA 6020A
Magnesium	69	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:06	TJJ	EPA 6020A
Potassium	0.17	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:06	TJJ	EPA 6020A
Sodium	8.9	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:06	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04300-12
Name: G64S
Matrix: Ground Water - Grab

Sampled: 10/22/24 14:40
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.7	mg/L	Q4	10/28/24 16:49	1	1.0	10/28/24 16:49	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/28/24 16:49	1	0.250	10/28/24 16:49	JSM	EPA 300.0 REV 2.1
Sulfate	24	mg/L		10/29/24 13:07	5	5.0	10/29/24 13:07	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.12	Feet		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Oxidation Reduction Potential	-106	mV		10/22/24 14:40	1	-500	10/22/24 14:40	FIELD	Field*
pH, Field Measured	6.93	pH Units		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Specific Conductance, Field Measured	822.0	umhos/cm		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Temperature, Field Measured	17.5	°C		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Turbidity, Field Measured	10.9	NTU		10/22/24 14:40	1	0.00	10/22/24 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	450	mg/L		10/28/24 09:31	1	26	10/28/24 15:05	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	15	ug/L		10/30/24 08:55	5	10	11/01/24 12:22	TJJ	EPA 6020A
Calcium	97	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:10	TJJ	EPA 6020A
Magnesium	44	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:10	TJJ	EPA 6020A
Potassium	0.55	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:10	TJJ	EPA 6020A
Sodium	12	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:10	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04540-03
Name: G02S
Matrix: Ground Water - Grab

Sampled: 10/23/24 11:20
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.3	mg/L		10/30/24 16:37	1	1.0	10/30/24 16:37	JSM	EPA 300.0 REV 2.1
Fluoride	0.305	mg/L		10/30/24 16:37	1	0.250	10/30/24 16:37	JSM	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		10/30/24 16:37	1	1.0	10/30/24 16:37	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.45	Feet		10/23/24 11:20	1		10/23/24 11:20	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		10/23/24 11:20	1		10/23/24 11:20	FIELD	Field*
Oxidation Reduction Potential	-127	mV		10/23/24 11:20	1	-500	10/23/24 11:20	FIELD	Field*
pH, Field Measured	6.71	pH Units		10/23/24 11:20	1		10/23/24 11:20	FIELD	Field*
Specific Conductance, Field Measured	700.0	umhos/cm		10/23/24 11:20	1		10/23/24 11:20	FIELD	Field*
Temperature, Field Measured	13.5	°C		10/23/24 11:20	1		10/23/24 11:20	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/23/24 11:20	1	0.00	10/23/24 11:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	390	mg/L		10/29/24 09:20	1	26	10/29/24 15:03	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	38	ug/L		10/30/24 08:55	5	10	11/01/24 12:30	TJJ	EPA 6020A
Calcium	96	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:29	TJJ	EPA 6020A
Magnesium	36	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:29	TJJ	EPA 6020A
Potassium	0.84	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:29	TJJ	EPA 6020A
Sodium	14	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:29	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-01
Name: G54L
Matrix: Ground Water - Grab

Sampled: 10/24/24 10:38
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	60	mg/L	Q4	10/31/24 14:14	25	25	10/31/24 14:14	JSM	EPA 300.0 REV 2.1
Sulfate	120	mg/L	Q3	10/31/24 14:14	25	25	10/31/24 14:14	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.89	Feet		10/24/24 10:38	1		10/24/24 10:38	KD	Field*
Dissolved oxygen, Field	1.2	mg/L		10/24/24 10:38	1		10/24/24 10:38	KD	Field*
Oxidation Reduction Potential	-50.0	mV		10/24/24 10:38	1	-500	10/24/24 10:38	KD	Field*
pH, Field Measured	6.69	pH Units		10/24/24 10:38	1		10/24/24 10:38	KD	Field*
Specific Conductance, Field Measured	1730	umhos/cm		10/24/24 10:38	1		10/24/24 10:38	KD	Field*
Temperature, Field Measured	14.0	°C		10/24/24 10:38	1		10/24/24 10:38	KD	Field*
Turbidity, Field Measured	16.1	NTU		10/24/24 10:38	1	0.00	10/24/24 10:38	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	740	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/06/24 14:37	1	0.250	11/06/24 14:37	ANK/QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	920	mg/L	M	10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	< 10	ug/L		11/04/24 09:11	5	10	11/04/24 16:51	TJJ	EPA 6020A
Calcium	210	mg/L		11/04/24 09:11	5	0.20	11/04/24 16:51	TJJ	EPA 6020A
Magnesium	110	mg/L	Q4	11/04/24 09:11	5	0.10	11/04/24 16:51	TJJ	EPA 6020A
Potassium	0.37	mg/L		11/04/24 09:11	5	0.10	11/04/24 16:51	TJJ	EPA 6020A
Sodium	15	mg/L		11/04/24 09:11	5	0.10	11/04/24 16:51	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-04
Name: X301 Pump House
Matrix: Ground Water - Grab

Sampled: 10/24/24 14:14
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	380	mg/L		10/31/24 17:05	250	250	10/31/24 17:05	JSM	EPA 300.0 REV 2.1
Sulfate	770	mg/L		10/31/24 17:05	250	250	10/31/24 17:05	JSM	EPA 300.0 REV 2.1
Field - PIA									
Dissolved oxygen, Field	16	mg/L		10/24/24 14:14	1		10/24/24 14:14	KD	Field*
Oxidation Reduction Potential	200	mV		10/24/24 14:14	1	-500	10/24/24 14:14	KD	Field*
pH, Field Measured	7.50	pH Units		10/24/24 14:14	1		10/24/24 14:14	KD	Field*
Specific Conductance, Field Measured	3220	umhos/cm		10/24/24 14:14	1		10/24/24 14:14	KD	Field*
Temperature, Field Measured	17.1	°C		10/24/24 14:14	1		10/24/24 14:14	KD	Field*
Turbidity, Field Measured	8.20	NTU		10/24/24 14:14	1	0.00	10/24/24 14:14	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	540	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	0.664	mg/L		11/04/24 15:40	1	0.250	11/04/24 15:40	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2500	mg/L		10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	6700	ug/L		11/04/24 09:11	5	10	11/04/24 17:02	TJJ	EPA 6020A
Calcium	400	mg/L		11/04/24 09:11	5	0.20	11/04/24 17:02	TJJ	EPA 6020A
Magnesium	230	mg/L		11/04/24 09:11	5	0.10	11/04/24 17:02	TJJ	EPA 6020A
Potassium	5.2	mg/L		11/04/24 09:11	5	0.10	11/04/24 17:02	TJJ	EPA 6020A
Sodium	51	mg/L		11/04/24 09:11	5	0.10	11/04/24 17:02	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-07
Name: G51S
Matrix: Ground Water - Grab

Sampled: 10/24/24 10:41
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	13	mg/L	Q4	10/31/24 20:12	5	5.0	10/31/24 20:12	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/31/24 19:55	1	0.250	10/31/24 19:55	JSM	EPA 300.0 REV 2.1
Sulfate	63	mg/L	Q4	10/31/24 20:29	10	10	10/31/24 20:29	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.52	Feet		10/24/24 10:41	1		10/24/24 10:41	KD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/24/24 10:41	1		10/24/24 10:41	KD	Field*
Oxidation Reduction Potential	-90.0	mV		10/24/24 10:41	1	-500	10/24/24 10:41	KD	Field*
pH, Field Measured	7.99	pH Units		10/24/24 10:41	1		10/24/24 10:41	KD	Field*
Specific Conductance, Field Measured	646.0	umhos/cm		10/24/24 10:41	1		10/24/24 10:41	KD	Field*
Temperature, Field Measured	10.1	°C		10/24/24 10:41	1		10/24/24 10:41	KD	Field*
Turbidity, Field Measured	235	NTU		10/24/24 10:41	1	0.00	10/24/24 10:41	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	360	mg/L		10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Boron	11	ug/L		10/31/24 07:50	5	10	11/01/24 15:55	TJJ	EPA 6020A
Calcium	96	mg/L		10/31/24 07:50	5	0.20	11/01/24 15:55	TJJ	EPA 6020A
Magnesium	42	mg/L		10/31/24 07:50	5	0.10	11/04/24 10:41	TJJ	EPA 6020A
Potassium	0.64	mg/L		10/31/24 07:50	5	0.10	11/01/24 15:55	TJJ	EPA 6020A
Sodium	7.5	mg/L		10/31/24 07:50	5	0.10	11/01/24 15:55	TJJ	EPA 6020A

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B446156 - SW 3015 - EPA 6020A									
Blank (B446156-BLK1)				Prepared: 10/17/24 Analyzed: 10/28/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B446156-BS1)				Prepared: 10/17/24 Analyzed: 10/28/24					
Boron	556	ug/L		555.6		100	80-120		
Calcium	5.55	mg/L		5.556		100	80-120		
Magnesium	5.91	mg/L		5.556		106	80-120		
Potassium	5.49	mg/L		5.556		99	80-120		
Sodium	5.76	mg/L		5.556		104	80-120		
Matrix Spike (B446156-MS1)	**Sample: HJ03204-01**			Prepared: 10/17/24 Analyzed: 10/28/24					
Boron	599	ug/L		555.6	52.4	98	75-125		
Calcium	394	mg/L	Q4	5.556	392	37	75-125		
Magnesium	128	mg/L	Q4	5.556	125	57	75-125		
Potassium	6.40	mg/L		5.556	0.800	101	75-125		
Sodium	12.3	mg/L		5.556	6.75	99	75-125		
Matrix Spike Dup (B446156-MSD1)	**Sample: HJ03204-01**			Prepared: 10/17/24 Analyzed: 10/28/24					
Boron	590	ug/L		555.6	52.4	97	75-125	2	20
Calcium	392	mg/L	Q4	5.556	392	5	75-125	0.5	20
Magnesium	128	mg/L	Q4	5.556	125	57	75-125	0.009	20
Potassium	6.33	mg/L		5.556	0.800	99	75-125	1	20
Sodium	12.2	mg/L		5.556	6.75	98	75-125	0.6	20
Batch B446520 - No Prep - SM 2540 C-2011									
Blank (B446520-BLK1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446520-BS1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	923	mg/L		1000		92	84.4-107		
Duplicate (B446520-DUP1)	**Sample: HJ03204-10**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	355	mg/L	M		375			5	5
Duplicate (B446520-DUP2)	**Sample: HJ03204-11**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	390	mg/L			410			5	5
Batch B446521 - No Prep - SM 2540 C-2011									
Blank (B446521-BLK1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446521-BS1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	943	mg/L		1000		94	84.4-107		
Duplicate (B446521-DUP1)	**Sample: HJ03498-01**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	530	mg/L			540			2	5
Duplicate (B446521-DUP2)	**Sample: HJ03498-10**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	570	mg/L	M		540			5	5

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B446640 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B446640-CCB1)				Prepared & Analyzed: 10/22/24					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B446640-CCV1)				Prepared & Analyzed: 10/22/24					
Chloride	5.06	mg/L		5.000		101	90-110		
Fluoride	5.24	mg/L		5.000		105	90-110		
Sulfate	5.03	mg/L		5.000		101	90-110		
Matrix Spike (B446640-MS1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/22/24					
Sulfate	1.00E9	mg/L	Q4	1.500	917	NR	80-120		
Chloride	4.0	mg/L	Q1	1.500	2.1	124	80-120		
Matrix Spike (B446640-MS2)	**Sample: HJ03204-05**			Prepared & Analyzed: 10/22/24					
Chloride	1.0E9	mg/L	Q4	1.500	14	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	131	NR	80-120		
Fluoride	1.79	mg/L		1.500	0.197	106	80-120		
Matrix Spike (B446640-MS3)	**Sample: HJ03204-09**			Prepared & Analyzed: 10/22/24					
Fluoride	1.79	mg/L		1.500	0.212	106	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	41.3	NR	80-120		
Matrix Spike Dup (B446640-MSD1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/22/24					
Chloride	3.9	mg/L		1.500	2.1	118	80-120	2	20
Sulfate	1.00E9	mg/L	Q4	1.500	917	NR	80-120	0	20
Matrix Spike Dup (B446640-MSD2)	**Sample: HJ03204-05**			Prepared & Analyzed: 10/22/24					
Sulfate	1.00E9	mg/L	Q4	1.500	131	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	14	NR	80-120	0	20
Fluoride	1.79	mg/L		1.500	0.197	106	80-120	0.02	20
Matrix Spike Dup (B446640-MSD3)	**Sample: HJ03204-09**			Prepared & Analyzed: 10/22/24					
Fluoride	1.80	mg/L		1.500	0.212	106	80-120	0.4	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	41.3	NR	80-120	0	20
Batch B446650 - No Prep - SM 2540 C-2011									
Blank (B446650-BLK1)				Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446650-BS1)				Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	950	mg/L		1000		95	84.4-107		
Duplicate (B446650-DUP1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	4600	mg/L			4660			1	5
Duplicate (B446650-DUP2)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	2570	mg/L			2500			3	5
Batch B446737 - No Prep - SM 2320 B-2011									
Duplicate (B446737-DUP1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/24/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	450	mg/L			438			3	10
Duplicate (B446737-DUP2)	**Sample: HJ03204-10**			Prepared & Analyzed: 10/24/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B446737-DUP2)	**Sample: HJ03204-10**			Prepared & Analyzed: 10/24/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	338	mg/L			350			4	10
Batch B446747 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B446747-CCB1)				Prepared & Analyzed: 10/23/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B446747-CCV1)				Prepared & Analyzed: 10/23/24					
Chloride	5.05	mg/L		5.000		101	90-110		
Sulfate	4.89	mg/L		5.000		98	90-110		
Matrix Spike (B446747-MS1)	**Sample: HJ03498-10**			Prepared & Analyzed: 10/23/24					
Sulfate	1.00E9	mg/L	Q4	1.500	86.9	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	20	NR	80-120		
Matrix Spike Dup (B446747-MSD1)	**Sample: HJ03498-10**			Prepared & Analyzed: 10/23/24					
Sulfate	1.00E9	mg/L	Q4	1.500	86.9	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	20	NR	80-120	0	20
Batch B446900 - No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B446900-CCB1)				Prepared & Analyzed: 10/24/24					
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B446900-CCV1)				Prepared & Analyzed: 10/24/24					
Sulfate	4.82	mg/L		5.000		96	90-110		
Chloride	4.98	mg/L		5.000		100	90-110		
Fluoride	5.15	mg/L		5.000		103	90-110		
Matrix Spike (B446900-MS1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/24/24					
Sulfate	1.00E9	mg/L	Q4	1.500	633	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	1500	NR	80-120		
Matrix Spike (B446900-MS2)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/24/24					
Chloride	< 1.0	mg/L	Q4	1.500	640	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	727	NR	80-120		
Matrix Spike Dup (B446900-MSD1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/24/24					
Chloride	< 1.0	mg/L	Q4	1.500	1500	NR	80-120		20
Sulfate	1.00E9	mg/L	Q4	1.500	633	NR	80-120	0	20
Matrix Spike Dup (B446900-MSD2)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/24/24					
Sulfate	1.00E9	mg/L	Q4	1.500	727	NR	80-120	0	20
Chloride	< 1.0	mg/L	Q4	1.500	640	NR	80-120		20
Batch B446964 - No Prep - SM 4500-F C-2011									
Calibration Blank (B446964-CCB1)				Prepared & Analyzed: 10/25/24					
Fluoride	0.0170	mg/L							
Calibration Blank (B446964-CCB2)				Prepared & Analyzed: 10/25/24					
Fluoride	0.0290	mg/L							
Calibration Check (B446964-CCV1)				Prepared & Analyzed: 10/25/24					
Fluoride	0.705	mg/L		0.7000		101	90-110		
Calibration Check (B446964-CCV2)				Prepared & Analyzed: 10/25/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B446964-CCV2)				Prepared & Analyzed: 10/25/24					
Fluoride	0.693	mg/L		0.7000		99	90-110		
Batch B446976 - SW 3015 - EPA 6020A									
Blank (B446976-BLK1)				Prepared & Analyzed: 10/28/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B446976-BS1)				Prepared & Analyzed: 10/28/24					
Boron	517	ug/L		555.6		93	80-120		
Calcium	5.34	mg/L		5.556		96	80-120		
Magnesium	5.87	mg/L		5.556		106	80-120		
Potassium	5.67	mg/L		5.556		102	80-120		
Sodium	5.71	mg/L		5.556		103	80-120		
Matrix Spike (B446976-MS1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/28/24					
Boron	1170	ug/L		555.6	640	96	75-125		
Calcium	745	mg/L	Q4	5.556	746	NR	75-125		
Magnesium	442	mg/L	Q4	5.556	444	NR	75-125		
Potassium	6.21	mg/L		5.556	0.721	99	75-125		
Sodium	47.2	mg/L		5.556	42.0	93	75-125		
Matrix Spike Dup (B446976-MSD1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/28/24					
Boron	1130	ug/L		555.6	640	88	75-125	4	20
Calcium	739	mg/L	Q4	5.556	746	NR	75-125	0.8	20
Magnesium	439	mg/L	Q4	5.556	444	NR	75-125	0.6	20
Potassium	6.18	mg/L		5.556	0.721	98	75-125	0.4	20
Sodium	46.6	mg/L		5.556	42.0	83	75-125	1	20
Batch B446982 - No Prep - SM 2540 C-2011									
Blank (B446982-BLK1)				Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446982-BS1)				Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	953	mg/L		1000		95	84.4-107		
Duplicate (B446982-DUP1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	2040	mg/L			2000			1	5
Duplicate (B446982-DUP2)	**Sample: HJ04300-11**			Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	620	mg/L			590			5	5
Batch B447036 - No Prep - SM 2320 B-2011									
Duplicate (B447036-DUP2)	**Sample: HJ03498-08**			Prepared & Analyzed: 10/28/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	525	mg/L			500			5	10
Duplicate (B447036-DUP3)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/28/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	488	mg/L			488			0	10
Duplicate (B447036-DUP4)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B447036-DUP4)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Alkalinity - bicarbonate as CaCO3	438	mg/L			438			0	10
Duplicate (B447036-DUP5)	**Sample: HJ04300-10**			Prepared & Analyzed: 10/28/24					
Alkalinity - bicarbonate as CaCO3	450	mg/L			425			6	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B447093 - No Prep - SM 2540 C-2011									
Blank (B447093-BLK1)				Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B447093-BS1)				Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	913	mg/L		1000		91	84.4-107		
Duplicate (B447093-DUP1)	**Sample: HJ04540-09**			Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	460	mg/L	M		435			6	5
Duplicate (B447093-DUP2)	**Sample: HJ04540-10**			Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	575	mg/L	M		615			7	5
Batch B447106 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447106-CCB1)				Prepared & Analyzed: 10/28/24					
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B447106-CCV1)				Prepared & Analyzed: 10/28/24					
Fluoride	5.29	mg/L		5.000		106	90-110		
Chloride	5.02	mg/L		5.000		100	90-110		
Sulfate	4.68	mg/L		5.000		94	90-110		
Matrix Spike (B447106-MS1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Chloride	1.0E9	mg/L	Q4	1.500	270	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	685	NR	80-120		
Matrix Spike (B447106-MS2)	**Sample: HJ04300-12**			Prepared & Analyzed: 10/28/24					
Chloride	4.1	mg/L		1.500	2.7	98	80-120		
Fluoride	1.69	mg/L		1.500	0.178	101	80-120		
Matrix Spike Dup (B447106-MSD1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Sulfate	1.00E9	mg/L	Q4	1.500	685	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	270	NR	80-120	0	20
Matrix Spike Dup (B447106-MSD2)	**Sample: HJ04300-12**			Prepared & Analyzed: 10/28/24					
Fluoride	1.66	mg/L		1.500	0.178	99	80-120	2	20
Chloride	4.1	mg/L		1.500	2.7	98	80-120	0.1	20
Batch B447194 - SW 3015 - EPA 6020A									
Blank (B447194-BLK1)				Prepared: 10/30/24 Analyzed: 11/01/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B447194-BS1)				Prepared: 10/30/24 Analyzed: 11/01/24					
Boron	536	ug/L		555.6		96	80-120		
Calcium	5.35	mg/L		5.556		96	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B447194-BS1)				Prepared: 10/30/24 Analyzed: 10/31/24					
Magnesium	5.60	mg/L		5.556		101	80-120		
Potassium	5.38	mg/L		5.556		97	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Matrix Spike (B447194-MS1)	**Sample: HJ04300-01**			Prepared: 10/30/24 Analyzed: 11/01/24					
Boron	18300	ug/L	Q4	555.6	17300	182	75-125		
Calcium	392	mg/L	Q4	5.556	390	38	75-125		
Magnesium	122	mg/L		5.556	117	79	75-125		
Potassium	9.61	mg/L		5.556	4.37	94	75-125		
Sodium	50.9	mg/L		5.556	45.5	96	75-125		
Matrix Spike Dup (B447194-MSD1)	**Sample: HJ04300-01**			Prepared: 10/30/24 Analyzed: 11/01/24					
Boron	17700	ug/L		555.6	17300	81	75-125	3	20
Calcium	389	mg/L	Q4	5.556	390	NR	75-125	0.9	20
Magnesium	119	mg/L	Q4	5.556	117	31	75-125	2	20
Potassium	9.56	mg/L		5.556	4.37	93	75-125	0.6	20
Sodium	50.7	mg/L		5.556	45.5	93	75-125	0.3	20
Batch B447246 - No Prep - SM 4500-F C-2011									
Calibration Blank (B447246-CCB1)				Prepared & Analyzed: 10/30/24					
Fluoride	0.0270	mg/L							
Calibration Blank (B447246-CCB2)				Prepared & Analyzed: 10/30/24					
Fluoride	0.0240	mg/L							
Calibration Check (B447246-CCV1)				Prepared & Analyzed: 10/30/24					
Fluoride	0.700	mg/L		0.7000		100	90-110		
Calibration Check (B447246-CCV2)				Prepared & Analyzed: 10/30/24					
Fluoride	0.672	mg/L		0.7000		96	90-110		
Matrix Spike (B447246-MS1)	**Sample: HJ03764-09**			Prepared & Analyzed: 10/30/24					
Fluoride	1.06	mg/L		1.000	ND	106	80-120		
Matrix Spike Dup (B447246-MSD1)	**Sample: HJ03764-09**			Prepared & Analyzed: 10/30/24					
Fluoride	1.08	mg/L		1.000	ND	108	80-120	2	20
Batch B447257 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447257-CCB1)				Prepared & Analyzed: 10/29/24					
Sulfate	0.00	mg/L							
Calibration Check (B447257-CCV1)				Prepared & Analyzed: 10/29/24					
Sulfate	4.65	mg/L		5.000		93	90-110		
Batch B447292 - SW 3015 - EPA 6020A									
Blank (B447292-BLK1)				Prepared: 10/31/24 Analyzed: 11/01/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B447292-BS1)				Prepared: 10/31/24 Analyzed: 11/01/24					
Boron	544	ug/L		555.6		98	80-120		
Calcium	5.55	mg/L		5.556		100	80-120		
Magnesium	5.90	mg/L		5.556		106	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B447292-BS1)				Prepared: 10/31/24 Analyzed: 11/01/24					
Potassium	5.71	mg/L		5.556		103	80-120		
Sodium	5.72	mg/L		5.556		103	80-120		
Matrix Spike (B447292-MS1)	**Sample: HJ04816-07**			Prepared: 10/31/24 Analyzed: 11/01/24					
Boron	561	ug/L		555.6	11.4	99	75-125		
Calcium	100	mg/L		5.556	95.9	77	75-125		
Potassium	6.21	mg/L		5.556	0.638	100	75-125		
Sodium	13.1	mg/L		5.556	7.50	100	75-125		
Matrix Spike Dup (B447292-MSD1)	**Sample: HJ04816-07**			Prepared: 10/31/24 Analyzed: 11/01/24					
Boron	564	ug/L		555.6	11.4	99	75-125	0.5	20
Calcium	101	mg/L		5.556	95.9	91	75-125	0.8	20
Potassium	6.29	mg/L		5.556	0.638	102	75-125	1	20
Sodium	13.2	mg/L		5.556	7.50	102	75-125	0.7	20
Batch B447304 - No Prep - SM 2540 C-2011									
Blank (B447304-BLK1)				Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B447304-BS1)				Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	913	mg/L		1000		91	84.4-107		
Duplicate (B447304-DUP1)	**Sample: HJ04816-01**			Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	875	mg/L	M		925			6	5
Duplicate (B447304-DUP2)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	375	mg/L			365			3	5
Batch B447311 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447311-CCB1)				Prepared & Analyzed: 10/30/24					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B447311-CCV1)				Prepared & Analyzed: 10/30/24					
Chloride	5.07	mg/L		5.000		101	90-110		
Fluoride	5.14	mg/L		5.000		103	90-110		
Sulfate	4.89	mg/L		5.000		98	90-110		
Matrix Spike (B447311-MS1)	**Sample: HJ04540-08**			Prepared & Analyzed: 10/30/24					
Sulfate	1.00E9	mg/L	Q4	1.500	13.3	NR	80-120		
Fluoride	1.76	mg/L		1.500	ND	117	80-120		
Chloride	5.5	mg/L		1.500	3.8	110	80-120		
Matrix Spike (B447311-MS2)	**Sample: HJ04540-09**			Prepared & Analyzed: 10/30/24					
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	12.5	NR	80-120		
Fluoride	1.73	mg/L		1.500	ND	115	80-120		
Matrix Spike (B447311-MS3)	**Sample: HJ04540-10**			Prepared & Analyzed: 10/30/24					
Fluoride	1.77	mg/L		1.500	0.173	106	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	137	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120		
Matrix Spike Dup (B447311-MSD1)	**Sample: HJ04540-08**			Prepared & Analyzed: 10/30/24					
Chloride	5.5	mg/L		1.500	3.8	110	80-120	0.04	20
Sulfate	1.00E9	mg/L	Q4	1.500	13.3	NR	80-120	0	20

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2231 W. Altorfer Drive
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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B447311-MSD1)	**Sample: HJ04540-08**			Prepared & Analyzed: 10/30/24					
Fluoride	1.78	mg/L		1.500	ND	118	80-120	1	20
Matrix Spike Dup (B447311-MSD2)	**Sample: HJ04540-09**			Prepared & Analyzed: 10/30/24					
Fluoride	1.73	mg/L		1.500	ND	115	80-120	0.09	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	12.5	NR	80-120	0	20
Matrix Spike Dup (B447311-MSD3)	**Sample: HJ04540-10**			Prepared & Analyzed: 10/31/24					
Sulfate	1.00E9	mg/L	Q4	1.500	137	NR	80-120	0	20
Fluoride	1.80	mg/L		1.500	0.173	108	80-120	2	20
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120	0	20
Batch B447440 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447440-CCB1)				Prepared & Analyzed: 10/31/24					
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B447440-CCV1)				Prepared & Analyzed: 10/31/24					
Fluoride	5.33	mg/L		5.000		107	90-110		
Chloride	5.20	mg/L		5.000		104	90-110		
Sulfate	5.08	mg/L		5.000		102	90-110		
Matrix Spike (B447440-MS1)	**Sample: HJ04816-01**			Prepared & Analyzed: 10/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	60	NR	80-120		
Sulfate	< 1.0	mg/L	Q1	1.500	120	NR	80-120		
Matrix Spike (B447440-MS2)	**Sample: HJ04816-05**			Prepared & Analyzed: 10/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	39	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	169	NR	80-120		
Fluoride	1.78	mg/L		1.500	0.208	105	80-120		
Matrix Spike (B447440-MS3)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	13	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	62.8	NR	80-120		
Fluoride	1.76	mg/L		1.500	0.177	105	80-120		
Matrix Spike Dup (B447440-MSD1)	**Sample: HJ04816-01**			Prepared & Analyzed: 10/31/24					
Sulfate	< 1.0	mg/L	Q2	1.500	120	NR	80-120		20
Chloride	1.0E9	mg/L	Q4	1.500	60	NR	80-120	0	20
Matrix Spike Dup (B447440-MSD2)	**Sample: HJ04816-05**			Prepared & Analyzed: 10/31/24					
Fluoride	1.79	mg/L		1.500	0.208	105	80-120	0.6	20
Sulfate	1.00E9	mg/L	Q4	1.500	169	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	39	NR	80-120	0	20
Matrix Spike Dup (B447440-MSD3)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					
Fluoride	1.75	mg/L		1.500	0.177	105	80-120	0.5	20
Sulfate	1.00E9	mg/L	Q4	1.500	62.8	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	13	NR	80-120	0	20
Batch B447528 - SW 3015 - EPA 6020A									
Blank (B447528-BLK1)				Prepared & Analyzed: 11/04/24					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B447528-BLK1)				Prepared & Analyzed: 11/04/24					
Potassium	< 0.10	mg/L							
Sodium	< 0.10	mg/L							
LCS (B447528-BS1)				Prepared & Analyzed: 11/04/24					
Boron	558	ug/L		555.6		100	80-120		
Calcium	5.41	mg/L		5.556		97	80-120		
Magnesium	5.82	mg/L		5.556		105	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Sodium	5.88	mg/L		5.556		106	80-120		
Matrix Spike (B447528-MS1)	**Sample: HJ04816-01**			Prepared & Analyzed: 11/04/24					
Boron	580	ug/L		555.6	ND	104	75-125		
Calcium	208	mg/L	Q4	5.556	206	24	75-125		
Magnesium	112	mg/L	Q4	5.556	110	37	75-125		
Potassium	5.94	mg/L		5.556	0.370	100	75-125		
Sodium	20.4	mg/L		5.556	14.7	102	75-125		
Matrix Spike Dup (B447528-MSD1)	**Sample: HJ04816-01**			Prepared & Analyzed: 11/04/24					
Boron	580	ug/L		555.6	ND	104	75-125	0.1	20
Calcium	211	mg/L		5.556	206	86	75-125	2	20
Magnesium	114	mg/L	Q4	5.556	110	61	75-125	1	20
Potassium	5.95	mg/L		5.556	0.370	100	75-125	0.06	20
Sodium	20.3	mg/L		5.556	14.7	101	75-125	0.4	20
Batch B447606 - No Prep - SM 2320 B-2011									
Duplicate (B447606-DUP1)	**Sample: HJ04540-01**			Prepared & Analyzed: 11/04/24					
Alkalinity - bicarbonate as CaCO3	312	mg/L			325			4	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B447606-DUP3)	**Sample: HJ04540-10**			Prepared & Analyzed: 11/04/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	388	mg/L			400			3	10
Duplicate (B447606-DUP4)	**Sample: HJ04816-01**			Prepared & Analyzed: 11/04/24					
Alkalinity - bicarbonate as CaCO3	762	mg/L			738			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B447606-DUP5)	**Sample: HJ04816-07**			Prepared & Analyzed: 11/04/24					
Alkalinity - bicarbonate as CaCO3	325	mg/L			325			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B447749 - No Prep - SM 4500-F C-2011									
Calibration Blank (B447749-CCB1)				Prepared & Analyzed: 11/04/24					
Fluoride	0.0320	mg/L							
Calibration Blank (B447749-CCB2)				Prepared & Analyzed: 11/04/24					
Fluoride	0.0180	mg/L							
Calibration Check (B447749-CCV1)				Prepared & Analyzed: 11/04/24					
Fluoride	0.690	mg/L		0.7000		99	90-110		
Calibration Check (B447749-CCV2)				Prepared & Analyzed: 11/04/24					
Fluoride	0.688	mg/L		0.7000		98	90-110		
Matrix Spike (B447749-MS2)	**Sample: HJ04816-16**			Prepared & Analyzed: 11/04/24					
Fluoride	1.19	mg/L		1.000	0.203	98	80-120		
Matrix Spike Dup (B447749-MSD2)	**Sample: HJ04816-16**			Prepared & Analyzed: 11/04/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B447749-MSD2)	**Sample: HJ04816-16**			Prepared & Analyzed: 11/04/24					
Fluoride	1.22	mg/L		1.000	0.203	102	80-120	3	20
Batch B447870 - No Prep - SM 4500-F C-2011									
Calibration Blank (B447870-CCB1)				Prepared & Analyzed: 11/06/24					
Fluoride	0.0320	mg/L							
Calibration Blank (B447870-CCB2)				Prepared & Analyzed: 11/06/24					
Fluoride	0.0320	mg/L							
Calibration Check (B447870-CCV1)				Prepared & Analyzed: 11/06/24					
Fluoride	0.657	mg/L		0.7000		94	90-110		
Calibration Check (B447870-CCV2)				Prepared & Analyzed: 11/06/24					
Fluoride	0.701	mg/L		0.7000		100	90-110		
Matrix Spike (B447870-MS1)	**Sample: HJ04816-01**			Prepared & Analyzed: 11/06/24					
Fluoride	1.17	mg/L		1.000	ND	117	80-120		
Matrix Spike Dup (B447870-MSD1)	**Sample: HJ04816-01**			Prepared & Analyzed: 11/06/24					
Fluoride	1.20	mg/L		1.000	ND	120	80-120	3	20

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NOTES

Specifications regarding method revisions and method modifications used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

M	Analyte failed to meet the required acceptance criteria for duplicate analysis.
Q1	Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q2	Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q3	Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q4	The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager

HJ037204

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd	Copy To:	Sam Davies: samantha.davies@vistracorp.com	Company Name:	Vistra Corp
	Canton, IL 61520		Daryl Johnson: Robert.Johnson@vistracorp.com	Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:	
Phone:	(217) 753-8911 Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:		Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM 101S			10/15/24	1104		5	J		J																			
2	OM 101D				1206																								
3	OM 100S				1355																								
4	OM 100D				1443																								
5	OM 99S				1545																								
6	G53S				1510		3																						
7	G53L				1417		3																						
8	G52L				1323		3																						
9	G50S				1119		4	J		J																			
10	JD ~~G50L~~ G12L				1545		5	J	J	J																			
11	10/15 R11L				1451																								
12	R10L				1326																								
13	R10L Dup			↓	1326																								
14																													
15																													
16																													

IR Gun # 15 Correction Factor (Deg C) 0.0

Observed Temp (Deg C) 1.7 Corrected Temp (Deg C) 1.7

Delivery Method: FedEx UPS Walk-In Courier

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q4 Rev 0		10/15/24	1657							
					10/15/24	1657	1.7	Y	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Jim Dunn		
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	10/15/24

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

HJ03498

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A (Required Client Information)		Section B (Required Project Information)		Section C (Invoice Information)	
Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker	Attention:	Brian Voelker
Address:	17751 North Cilco Rd	Copy To:	Sam Davies: samantha.davies@vistracorp.com	Company Name:	Vistra Corp
	Canton, IL 61520		Daryl Johnson: Robert.Johnson@vistracorp.com	Address:	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.:		Quote Reference:	
Phone:	(217) 753-8911 Fax:	Project Name:		Project Manager:	
Requested Due Date/TAT:	10 day	Project Number:		Profile #:	

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

Section D (Required Client Information)

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GO2L	WT	G	10/16/24	1500		4	X	X	X		X																		
2	GO3L	WT	G	10/16/24	1359		5	X	X	X		X																		
3	R13L	WT	G	10/16/24	1153		5	X	X	X		X																		
4	OM16	WT	G	10/16/24	1054		4	X		X																				
5	OM17D	WT	G	10/16/24	1144		5	X		X																				
6	OM21	WT	G	10/16/24	1315		5	X		X																				
7	OM24D	WT	G	10/16/24	1420		5	X		X																				
8	OR02	WT	G	10/16/24	1513		5	X		X																				
9	G59S	WT	G	10/16/24	1521		3	X		X																				
10	G58S	WT	G	10/16/24	1440		3	X		X																				
11	G57S	WT	G	10/16/24	1350		4	X		X																				
12	G54S	WT	G	10/16/24	1251		4	X		X																				
13	G55S	WT	G	10/16/24	1155		3	X		X																				
14	G55L	WT	G	10/16/24	1112		3	X		X																				
15	G56S	WT	G	10/16/24	1030		3	X		X																				
16	DM17	WT	G	10/16/24	1225		1			X																				

IR Gun # 13 Correction Factor (Deg C) 0.2

Observed Temp (Deg C) 2.9 Corrected Temp (Deg C) 3.1

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/16/24	1640							
					10/16/24	1640	—	X	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rembelos

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/16/24

H)037764

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER

UST | RCRA | OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G70L	GW	G	10/17/24	1027		3	X		X																			
2	G71L	GW	G	10/17/24	1123		3	X		X																			
3	G67L	GW	G		1238		3	X		X																			
4	G675				1325		3	X		X																			
5	G713				1415		3	X		X																			
6	G635				1400		3	X		X																			
7	G613				1310		3	X		X																			
8	G605				1156		4	X		X																			
9	G60L				1102		4	X		X																			
10	~~OM23D~~				~~1248~~		5	X		X																			
11	OM25S			1420	1545		5	X		X																			
12	OR03D			10/17/24	1004 1208		5	X		X																			
13	~~OR04D~~			24	~~1450~~		5	X		X																			
14	~~OM47~~ OR04D				1116		5	X		X																			
15	OM23D				1345		5	X		X																			
16	G02L				1500		1	X																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/17/24	1608		10/17/24	1608	2.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/24

Appendix A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM12	GW	G	10/17/24	1307		5	X		X																		
2	OM12D				1204		5	X		X																		
3	~~DM25~~				~~1420~~		~~5~~	X		X							on Pg 1				10/17/24							
4	EB #1				1430		5	X		X																		
5	10/17/24 dcb																											FIELDS AFTER OM25
6																												
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/17/24	1608		10/17/24	1609	2.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/24

Appendix A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

HJ043300

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	ORIGD	GW	G	10/22/24	1440		5	X		X																		
2	P60				1341		4	X		X																		
3	D37L				1208		3	X		X																		
4	D36L				1119		3	X		X																		
5	D36L DUPE DUP 10-22-24				1119		3	X		X																		
6	T46L	GW	G		1017		3	X		X																		
7	T45L				1042		3	X		X																		
8	T44L				1102		3	X		X																		
9	T43L				1132		3	X		X																		
10	T43L DUP 10-22-24				1132		3	X		X																		
11	G64L				1305		4	X		X																		
12	G64S				1440		4	X		X																		
13	G62L				1540		4	X		X																		
14																												
15																												
16																												

IR Gun # 17 Correction Factor (Deg C) -0.1

Observed Temp (Deg C) 0.7 Corrected Temp (Deg C) 0.6

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/22/24	1639		10/22/24	1639		X	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KHALED DESEE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/22/24

H J04540

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number:	Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G16L	GW	G	10/23/24	1339		5	X	X	X		X																	
2	G060				1230		1	X																					
3	G025				1120		4	X		X																			
4	OR11				1348		5	X		X																			
5	OR20				1508		3	X		X																			
6	OR20 DUP				1508		5	X		X																			
7	P60				0939		2	X																					
8	BA03				1345		4	X		X																			
9	BA02				1235		4	X		X																			
10	BA01				1135		4	X		X																			
11	BA01 DUP				1135		4	X		X																			
12	BA06				1459		4	X		X																			
13	RB1L			✓ 1152 +30 10/23/24			4	X		X																			
14																													
15																													
16																													

Requested Analysis Filtered (Y/N)

IR Gun # 16 Correction Factor (Deg C) +0.1
Observed Temp (Deg C) 3.0 Corrected Temp (Deg C) 3.1
Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q4 Rev 0		10/23/24	1618				
					10/23/24	1618	

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: CHALES DESKE
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 10/23/24

HJ048162/CD

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G54L	GW	G	10/24/24	1038		4	X		X																		
2	G52S				1201		3	X		X																		
3	G02S DUP				1201		3	X		X																		
4	~~G51L~~ (NO WATER)																											
5	X301 Pump House				1414		3	X		X																		
6	BA04				1340		4	X		X																		
7	BA05				1215		4	X		X																		
8	G51S				1041		4	X		X																		
9	~~P36L~~ sample deleted	01	24	24	~~1048~~		1	X																				
10	GO6L	GW	G		1503		4	X		X																		
11	FIELD BLANK				1530		8	X	X	X		X																
12	OR13D				1259		5	X		X																		
13	OR13S				1230		5	X		X																		
14	OR19				1122		5	X		X																		
15	~~EQUIPMENT BLANK~~ EB #2	01	24	24	1540		5	X		X																		
16	OMO7	GW			0849		5	X		X																		

R Gun # 15 Correction Factor (Deg C) 0.0

Observed Temp (Deg C) 0.8 Corrected Temp (Deg C) 0.8

Delivery Method: FedEx UPS Walk-in USPS Other

Limited vol

field team

AFTER XPW02

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/24/24	1629							
				Caty P. Deske	10/24/24	1629	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKE

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/24/24

Appendix A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, GYPSUM MANAGEMENT FACILITY POND
DC-257-203

HJ048116 CD

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OR06A	GW	G	10/24/24	0938		5	X		X																	
2	OM22D				1135		5	X		X																	
3	OM15D				1040		5	X		X																	
4	OM28				1245		4	X		X																	
5	OM27				1345		4	X		X																	
6	OM26				1423		4	X		X																	
7	XPW01				1528		5	X		X																	
8	OM01				1410		5	X		X																	
9	OM01 DUP			↓	1410		5	X		X																	
10																											
11																											
12																											
13																											
14																											
15																											
16																											

IR Gun #: 15 Correction Factor (Deg C): 0.0

Observed Temp (Deg C): 0.8 Corrected Temp (Deg C): 0.8

Delivery Method: FedEx UPS Walk-in USPS Other: 2 field team

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/24/24	1629							
				Caty P. Deske	10/24/24	1629	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Kaleb Deske

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/24/24

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01C	DC_BA01!C	10/14/24	1250	16.47		ABP
BA01L	DC_BA01!L	10/14/24	1248	17.24		ABP
G02BS	DC_G02*BS	10/14/24	1444	18.21		JD
G02D	DC_G02&D	10/14/24	1445	24.54		JD
G02L	DC_G02!L	10/14/24	1447	16.47		JD
G03L	DC_G03!L	10/14/24	1451	14.06		JD
G03S	DC_G03#S	10/14/24	1452	13.71		JD
G04L	DC_G04!L	10/14/24	1443	16.70		JB
G04S	DC_G04#S	10/14/24	1445	20.80		JB
G06L	DC_G06!L	10/14/24	0936	22.96		JB
G06S	DC_G06#S	10/14/24	0931	23.34	Was not locked	JB
G07L	DC_G07!L	10/14/24	0923	22.14		JB
G08L	DC_G08!L	10/14/24	0944	21.63		JB
G09L	DC_G09!L	10/14/24	0955	21.97		JB
G09S	DC_G09#S	10/14/24	0958	21.98		JB
G12L	DC_G12!L	10/14/24	1050	22.51		JB
G12S	DC_G12#S	10/14/24	1056	24.23		JB
G14L	DC_G14!L	10/14/24	1038	25.89		JB
G15L	DC_G15!L	10/14/24	1228	32.80		JB
G15S	DC_G15#S	10/14/24	1229	33.15		JB
G16L	DC_G16!L	10/14/24	1240	31.20		JB
G50L	DC_G50!L	10/14/24	1535	Dry		KMD
G51L	DC_G51!L	10/14/24	1417	19.40		KMD
G52L	DC_G52!L	10/14/24	1430	27.20		KMD
G52S	DC_G52#S	10/14/24	1428	31.58		KMD
G53L	DC_G53!L	10/14/24	1330	16.75		KMD
G53S	DC_G53#S	10/14/24	1329	18.24		KMD
G54C	DC_G54!C	10/14/24	1515	36.78		KMD
G55L	DC_G55!L	10/14/24	1505	22.30		KMD
G55S	DC_G55#S	10/14/24	1504	22.24		KMD
G56L	DC_G56!L	10/14/24	1253	21.82		KMD
G56S	DC_G56#S	10/14/24	1252	22.44		KMD
G57L	DC_G57!L	10/14/24	1246	24.32		KMD
G58L	DC_G58!L	10/14/24	1237	27.65		KMD
G58S	DC_G58#S	10/14/24	1236	27.80		KMD
G59L	DC_G59!L	10/14/24	1218	26.73		KMD
G59S	DC_G59#S	10/14/24	1216	34.20		KMD
G61S	DC_G61#S	10/14/24	1204	23.64		KMD
G62L	DC_G62!L	10/14/24	1136	23.65		KMD

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G63L	DC_G63!L	10/14/24	1129	24.64		
G63S	DC_G63#S	10/14/24	1132	25.60		
G65L	DC_G65!L	10/14/24	1102	20.92		
G65S	DC_G65#S	10/14/24	1101	21.22		
G66L	DC_G66!L	10/14/24	1046	19.55		
G66S	DC_G66#S	10/14/24	1045	20.12		
G67L	DC_G67!L	10/14/24	1052	16.74		
G67S	DC_G67#S	10/14/24	1053	17.64		
G68L	DC_G68!L	10/14/24	1447	15.58		
G68S	DC_G68#S	10/14/24	1446	16.68		
G69L	DC_G69!L	10/14/24	1437	17.87		
G69S	DC_G69#S	10/14/24	1440	20.66		
G70L	DC_G70!L	10/14/24	1015	21.38		
G71L	DC_G71!L	10/14/24	1020	26.80		
G71S	DC_G71#S	10/14/24	1018	27.44		
G72L	DC_G72!L	10/14/24	1030	26.49		
G73L	DC_G73!L	10/14/24	1514	27.79		JD
L103	DC_L103	10/14/24	1519	2.16		
OM05S	DC_OM05#S	10/14/24	1341	21.93		
OM08	DC_OM08	10/14/24	1254	13.88		JD
OM09	DC_OM09	10/14/24	1056	4.56		JD
OM10	DC_OM10	10/14/24	1208	14.35		JD
OM100D	DC_OM100&D	10/14/24	1146	14.15		JD
OM100S	DC_OM100#S	10/14/24	1145	14.33		JD
OM101D	DC_OM101&D	10/14/24	1014	19.23		
OM101S	DC_OM101#S	10/14/24	1013	18.59		
OM12D	DC_OM12&D	10/14/24	1248	18.00		JD
OM15	DC_OM15	10/14/24	1139	22.63		JD
OM15D	DC_OM15&D	10/14/24	1138	25.71		JD
OM17D	DC_OM17&D	10/14/24	1202	17.25		JD
OM22S	DC_OM22#S	10/14/24	1048	20.14		JD
OM23S	DC_OM23#S	10/14/24	1031	42.76		JD
OM25D	DC_OM25&D	10/14/24	1021	58.62		JD
OM26	DC_OM26	10/14/24	1113	32.40		JD
OM27	DC_OM27	10/14/24	1107	33.57		JD
OM28	DC_OM28	10/14/24	1103	47.98		JD
OR03S	DC_OR03#S	10/14/24	1320	45.89		JD
OR05D	DC_OR05&D	10/14/24	1339	23.10		
OR14S	DC_OR14#S	10/14/24	1343	8.56		JD

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OR18	DC_OR18	10/14/24	1130	19.39		JD
P01I	DC_P01$I	10/14/24	1520	16.41		JB
P01L	DC_P01!L	10/14/24	1524	17.09		JB
P01S	DC_P01#S	10/14/24	1522	16.74		JB
P02S	DC_P02#S	10/14/24	1444	18.21	same as 602BS	JD
P04S	DC_P04#S	10/14/24	1445	20.80	Same as 604S	JB
P05D	DC_P05&D	10/14/24	1430	7.63		JB
P05L	DC_P05!L	10/14/24	1432	7.45		JB
P05S	DC_P05#S	10/14/24	1428	7.35		JB
P36D	DC_P36&D	10/14/24	1207	12.79		JB
P36L	DC_P36!L	10/14/24	1206	12.45		JB
P36S	DC_P36#S	10/14/24	1204	12.57		JB
P37D	DC_P37&D	10/14/24	1108	16.71		JB
P37L	DC_P37!L	10/14/24	1115	Dry	Top of pump	JB
P38L	DC_P38!L	10/14/24	1215	19.44		JB
P38S	DC_P38#S	10/14/24	1217	19.64		JB
P39D	DC_P39&D	10/14/24	1339	14.85		JB
P39L	DC_P39!L	10/14/24	1341	9.73		JB
P39S	DC_P39#S	10/14/24	1338	9.95		JB
P40L	DC_P40!L	10/14/24	1405	17.14		JB
P40S	DC_P40#S	10/14/24	1403	16.30		JB
P41D	DC_P41&D	10/14/24	1454	35.68		APP
P41I1	DC_P41$I1	10/14/24	1453	13.58		APP
P41I2	DC_P41%I2	10/14/24	1451	35.90		APP
P41L	DC_P41!L	10/14/24	1457	11.67		APP
P41S	DC_P41#S	10/14/24	1456	13.29		APP
P42D	DC_P42&D	10/14/24	1457	24.14		
P42I1	DC_P42$I1	10/14/24	1459	11.56		
P42I2	DC_P42%I2	10/14/24	1458	33.42		
P42L	DC_P42!L	10/14/24	1501	10.65		
P42S	DC_P42#S	10/14/24	1500	11.14		
P52	DC_P52	10/14/24	1519	17.81		JD
P57L	DC_P57!L	10/14/24	1420	18.71		JD
P57S	DC_P57#S	10/14/24	1418	18.39		JD
P60	DC_P60	10/14/24	1209	25.00		
P61	DC_P61	10/14/24	1347	16.74		
P62	DC_P62	10/14/24	1119	14.62		
P63	DC_P63	10/14/24	1124	15.85		
P64	DC_P64	10/14/24	1355	17.60		

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
R10L	DC_R10!L	10/14/24	1005	23.02	Not marked	JB
R11L	DC_R11!L	10/14/24	1009	22.24		JB
R13L	DC_R13!L	10/14/24	1022	23.17		JB
R61L	DC_R61!L	10/14/24	1202	22.97		KMD
R72S	DC_R72#S	10/14/24	1027	26.66		JD
T43L	DC_T43!L	10/14/24	1127	8.09		JB
T44L	DC_T44!L	10/14/24	1132	12.24		JB
T45L	DC_T45!L	10/14/24	1152	11.23		JB
T46L	DC_T46!L	10/14/24	1158	8.36		JB
X301	DC_X301_leachate	10/14/24	1530	NB		APP

SAR-4: Plant Sampling and Analysis Request
Event: DC-24Q4
Date Generated: 09/16/2024
All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Serial Number	Does Data Logger Serial No Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)	Comments	Initials
BA01	DC_BA01	10/14/24	1245	17.05	21615533	yes	570.4207	yes	M		APP
BA02	DC_BA02	10/14/24	1301	12.66	21615636	yes	567.5209	yes	H		APP
BA02L	DC_BA02!L	10/14/24	1257	12.42	21615682	yes	567.6332	yes	H		APP
BA03	DC_BA03	10/14/24	1056	12.50	21615637	yes	566.1495	yes	M		APP
BA03L	DC_BA03!L	10/14/24	1211	7.55	21615687	yes	0.0017	NO	R	replaced Batteries no data to download	APP
BA04	DC_BA04	10/14/24	1040	8.33	21615631	yes	570.0896	yes	M		APP
BA05	DC_BA05#	10/14/24	1237	22.42	21615540	yes	573.5125	yes	M		APP
BA06	DC_BA06	10/14/24	1229	23.95	21615525	yes	572.0574	yes	M		APP
G02S	DC_G02#S	10/14/24	1442	14.06	21615554	yes	607.8053	yes	H		JD
G50S	DC_G50#S	10/14/24	1533	18.89	21615535	yes	604.8652	yes	H		KMD
G51S	DC_G51#S	10/14/24	1419	18.83	21615691	yes	598.6650	yes	H		KMD
G54L	DC_G54!L	10/14/24	1003	25.54	21615690	yes	598.1588	yes	H		KMD
G54S	DC_G54#S	10/14/24	1002	24.72	21615684	yes	597.5105	yes	H		KMD
G57S	DC_G57#S	10/14/24	1245	24.02	21615683	yes	598.5564	yes	H		KMD
G60L	DC_G60!L	10/14/24	1308	17.72	21615678	yes	596.5620	yes	H		KMD
G60S	DC_G60#S	10/14/24	1306	25.54	21615677	yes	584.3562	yes	H		KMD
G64L	DC_G64!L	10/14/24	1320	23.86	21615688	yes	598.4718	yes	H		KMD
G64S	DC_G64#S	10/14/24	1322	25.06	21615632	yes	598.0279	yes	M		KMD
OM01	DC_OM01	10/14/24	1307	12.38	21615685	yes	582.8997	yes	H		JD
OM04S	DC_OM04#S	10/14/24	1329	20.70	21615542	yes	586.5418	yes	M		JD
OM07	DC_OM07	10/14/24	1309	12.43	21921676	yes	584.3670	yes	H		APP
OM12	DC_OM12	10/14/24	1359	17.07	21926670	yes	578.6861	yes	H		JD
OM16	DC_OM16	10/14/24	1155	27.62	21615539	yes	581.4107	yes	H		JD
OM17	DC_OM17	10/14/24	1201	14.89	21615693	yes	576.9035	yes	L		JD
OM21	DC_OM21	10/14/24	1335	12.13	21615593	yes	594.2720	yes	H		JD
OM22D	DC_OM22&D	10/14/24	1046	19.88	21615592	yes	579.2247	yes	H		JD
OM23D	DC_OM23&D	10/14/24	1029	38.79	21615591	yes	574.5273	yes	H		JD
OM24D	DC_OM24&D	10/14/24	1011	5.83	21615522	yes	571.1287	yes	H		JD
OM25S	DC_OM25#S	10/14/24	1018	58.63	21615681	yes	570.5934	yes	H		JD

SAR-4: Plant Sampling and Analysis Request
Event: DC-24Q4
Date Generated: 09/16/2024
All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Serial Number	Does Data Logger Serial No Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)	Comments	Initials
OR02	DC_OR02	10/14/24	1313	8.24	21615679	yes	593.0969	yes	H		JD
OR03D	DC_OR03&D	10/14/24	1318	45.37	21615577	yes	582.5450	yes	H		JD
OR04D	DC_OR04&D	10/14/24	1328	21.84	21615570	yes	585.8407	yes	H		JD
OR06A	DC_OR06!A	10/14/24	1314	15.09	21615692	yes	580.3470	yes	M		AF
OR11	DC_OR11	10/14/24	1232	32.20	21615686	yes	564.1113	yes	M		JD
OR13D	DC_OR13&D	10/14/24	1414	14.60	21564135	yes	587.9433	yes	M		AF
OR13S	DC_OR13#S	10/14/24	1412	14.72	21615676	yes	587.8021	yes	H		AF
OR14D	DC_OR14&D	10/14/24	1340	11.98	21615611	yes	587.1992	yes	H		JD
OR19	DC_OR19	10/14/24	1244	23.98	21615634	yes	574.8343	yes	H		JD
OR20	DC_OR20	10/14/24	1226	22.36	21615610	yes	595.2091	yes	H		JD
RG01	DC_RG01	10/14/24	0930	∞	21628685	yes	–	yes	–		AF

Duck Creek

WELL/SAMPLE POINT G02S **Purge Method:** Compressor

Last Quarter: Dedicated Bladder

Date: 10/23/24 Start Time: 1026 Finish/Sample Time: 1120

Well Depth (Bottom) From MP: 29.06 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 14.45 ft Total Purge Volume: 1500 mL

Water Column Length: 14.61 ft

Well Water Volume: 8.85 L Total Drawdown: 1.42 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1037	15.83	250	6.71	701	13.57	-130	1.99	5.7
2	1039	15.83	250	6.71	701	13.48	-129	1.86	0.0
3	1041	15.83	250	6.71	700	13.49	-127	1.78	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ■ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ■ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ■ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 15.87 ft

Comments

Sampler's Signature: JBohannan

Duck Creek

WELL/SAMPLE POINT G50S **Purge Method:** DEDICATED BLADDER

Last Quarter: Dedicated Bladder

Date: 10/15/24 Start Time: 1022 Finish/Sample Time: 1119

Well Depth (Bottom) From MP: 37.30 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 18.96 ft Total Purge Volume: 1900 mL

Water Column Length: 18.34 ft

Well Water Volume: 11.10 L Total Drawdown: 6.02 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1033	21.72	100	10.42	712	12.94	29	0.0	20.9
2	1036	22.25	100	10.49	708	12.98	35	0.0	16.9
3	1039	22.83	100	10.47	707	13.03	30	0.0	11.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P,2.5L, HNO3)

4

Filtered	
Qty	Bottles
1 RMD	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 24.98 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G51S **Purge Method:** Bladder

Last Quarter: Dedicated Bladder

Date: ~~10/15/24~~ 10/24/24 KMD Start Time: ~~1120~~ 0925 ~~0941~~ Finish/Sample Time: 1041

Well Depth (Bottom) From MP: 32.17 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: ~~15.89~~ ft 19.52 Total Purge Volume: 1600 mL

Water Column Length: KMD 10/24/24 ~~18.28~~ ft 12.65

Well Water Volume: ~~8.04~~ L 7.66 Total Drawdown: 5.57 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	0940	21.70	~~400~~ 100	8.05	6650	10.17	-90	0.0	701
2	0943	22.05	~~200~~ 100	7.96	6645	10.03	-90	0.0	379
3	0946	22.30	~~200~~ 100	7.99	6646	10.10	-90	0.0	255
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 25.09 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G54L **Purge Method:** Dedicated Peristaltic

Last Quarter: Dedicated Peristaltic Tubing AP

Date: 10/24/24 Start Time: 9:45 Finish/Sample Time: 10:38

Well Depth (Bottom) From MP: 40.15 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 24.89 ft Total Purge Volume: 1600 mL

Water Column Length: 15.26 ft

Well Water Volume: 9.24 L Total Drawdown: 2.36 ft

AW 10/24/24

pH	Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
6.64	1	9:59	26.06	200	~~6.40~~	1690	14.04	-46	1.34	20.3
6.69	2	10:00	26.15	200	~~6.44~~	1730	14.00	-49	1.28	17.2
6.69	3	10:01	26.24	200	~~6.44~~	1730	14.01	-50	1.17	16.1
	4									
	5									
	Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

<7.22

Field Meter: Horiba **Check pH if reading is below 6.5**

Secondary pH Meter: Oakton PCTS50 #3058579

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 27.25 ft

Comments

Sampler's Signature: [signature]

Duck Creek

WELL/SAMPLE POINT G54S **Purge Method:** DEDICATED BLADDER

Last Quarter: Dedicated Bladder

Date: 10/16/24 Start Time: 1202 Finish/Sample Time: 1251

Well Depth (Bottom) From MP: 51.26 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 25.94 ft Total Purge Volume: 16000 mL

Water Column Length: 25.32 ft

Well Water Volume: 15.33 L Total Drawdown: 7.87 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1220	28.90	200	6.66	988	14.06	-75	0.13	2.6
2	1223	29.60	200	6.68	985	14.03	-73	0.10	2.1
3	1226	30.00	200	6.69	982	13.91	-75	0.00	2.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Check pH if reading is below 6.5

Secondary pH Meter: ——

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	**Bottles**
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 33.81 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G57S **Purge Method:** DEDICATED BLADDER

Date: 10/16/24 Start Time: 1300 Last Quarter: Dedicated Bladder Finish/Sample Time: 1350

Well Depth (Bottom) From MP: 37.40 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 24.22 ft Total Purge Volume: 1300 mL

Water Column Length: 13.18 ft

Well Water Volume: 7.98 L Total Drawdown: 0.78 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1320	24.98	100	6.67	1450	15.84	40	0.00	3.4
2	1323	25.05	100	6.69	1450	15.70	34	0.00	5.0
3	1326	25.00	100	6.64	1450	15.82	31	0.00	4.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Check pH if reading is below 6.5 or above 7.5

Secondary pH Meter:

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
1	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 25.00 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G60S **Purge Method:** DEDICATED BLADDER

Date: 10/16/24 (17 TRB 10/15/24) Start Time: 1103 Last Quarter: Dedicated Bladder Finish/Sample Time: 1156

Well Depth (Bottom) From MP: 39.20 ft KMD

Depth to Water From MP: ~~26.84~~ ft 25.84

Water Column Length: 13.36 ft

Well Water Volume: 8.09 L

Min. Purge Volume: 1000 mL

Total Purge Volume: 16000 mL

Total Drawdown: 0.48 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1120	26.32	100	7.32	734	14.32	-52	0.0	10.6
2	1123	26.32	100	7.32	732	14.42	-56	0.0	10.5
3	1126	26.32	100	7.30	731	14.50	-56	0.0	13.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Check pH if reading is below 6.5 or above 7.5

Secondary pH Meter: ~~~~

Sample Appearance:

Odor:	☑ None	☐ Slight	☐ Mod.	☐ Strong
Color	☐ None	☑ Slight	☐ Mod.	☐ Strong
Turb:	☐ None	☑ Slight	☐ Mod	☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	**Bottles**
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 26.32 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G60L **Purge Method:** DEDICATED BLADDER

Last Quarter: Dedicated Bladder

Date: 10/17/24 Start Time: 1000 Finish/Sample Time: 1102

Well Depth (Bottom) From MP: 27.00 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 19.10 ft Total Purge Volume: 1800 mL

Water Column Length: 7.90 ft

Well Water Volume: 4.78 L Total Drawdown: 5.6 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1028	21.08	100	8.31	657	13.87	52	0.0	26.2
2	1031	22.17	100	8.28	641	13.78	60	0.0	26.4
3	1034	22.78	100	8.28	656	13.85	58	0.0	25.2
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 24.70 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G64L **Purge Method:** Dedicated peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/22/24 Start Time: 12:12 Finish/Sample Time: 13:05

Well Depth (Bottom) From MP: 30.25 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 24.01 ft Total Purge Volume: 1450 mL

Water Column Length: 6.24 ft

Well Water Volume: 3.78 L Total Drawdown: 0.73 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	12:25	24.37	150	6.88	1060	15.35	93	2.40	0.0
2	12:26	24.42	150	6.87	1060	15.31	93	2.42	0.0
3	12:27	24.42	150	6.86	1060	15.30	92	2.34	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Check pH if reading is below 6.5 or above 7.5

Secondary pH Meter:

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

AW 10/22/24 (4)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 24.74 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G64S **Purge Method:** Deficantel Bladder AP

Last Quarter: Dedicated Bladder

Date: 10/22/24 Start Time: 13:34 Finish/Sample Time: 14:40

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 25.12 ft Total Purge Volume: 1300 mL

Water Column Length: 14.38 ft

Well Water Volume: 8.71 L Total Drawdown: 0.90 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:46	25.64	100	6.97	825	17.58	-106	2.60	12.1
2	13:47	25.64	100	6.96	824	17.52	-106	2.45	11.8
3	13:48	25.64	100	6.93	822	17.50	-106	2.30	10.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba **Check pH if reading is below 6.5 or above 7.5**

Secondary pH Meter:

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 26.02 ft

Comments

Sampler's Signature: Andy Weiler

Duck Creek

WELL/SAMPLE POINT X301 Pump House **Purge Method:** Bailer

Date: 10/24/24 Start Time: 1355 Finish/Sample Time: 1414

Ap

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1									
	1410	—	—	7.50	3220	17.14	200	16.05	8.2
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☑ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P,500mL)
1	General (P,1000mL)
	Rad (P, 2.5L, HNO3)

3

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Comments

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	57°-37° mostly sunny wind 13mph N	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	3T85NNNF	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19F-F220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.51	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.82	s.u.	±0.1 s.u.	F	Y	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.18	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	353	µS/cm	0<25 µS/cm	F	Y	21	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	N	—	Proactive	3GJ1438	Oct-24
ORP	240	mV	±15 mV	P	N	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.3	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0917

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.88	s.u.	±0.15 s.u.	P	N	Proactive	3GE1074	May-25
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	N	Proactive	3GE1252	May-25
pH 10.00b	9.94	s.u.	±0.15 s.u.	P	N	Geotech	3GA1134	Jan-25
SC 1000	960	µS/cm	±5%	P	N	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1571

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	N	—	MSI	023219-02	8/9/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.			—	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.			—	MSI	024037-01	2/21/2026
SC 1000	970	µS/cm	±5%			—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L			—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore Date: 15-Oct-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	40-56°F P-Sunny wind N 14-25mph	Environment:	grass, weeds

Multiparameter Water Meter	Make:	Aquatroll	Model:	600	Serial Number:	762215
Water Level Meter	Make:	Heron I	Model:	Dipper-T	Serial Number:	11FF2209305ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N.	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	6.19	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2011.0	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	250.2	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.21	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.06	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0924

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	N/A	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.08	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1037.8	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1553

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1042.8	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:		Date:	10/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	42° SUNNY 12 mph N	Environment:	GRASSY

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	33459	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.78	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	PASS	NO	NA	MSI	023334-01	12/7/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	12	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	231	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0947

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	6.99	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.00	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	998	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1517

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron McGeehon	Location:	Duck creek
Weather:	Wind 5mph NW	Environment:	grass, dust
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: 3T8SNNNF
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	yes	0.0	MSI	023219-02	8/9/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC Zero (DI)	20	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	230	mV	±15 mV	P	NO	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	73.2	%	97-100%	P	yes	100.0	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	41.0	NTU	<2 NTU	P	yes	0.0	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

242 @ 15°C

ICV (Initial Calibration Verification) Time: 0954

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	958	µS/cm	±5%	P	✓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1524

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC 1000	964	µS/cm	±5%	P	NO	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	✓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD	Location:	Duck Creek
Weather:	48-63°F m, sunny wind NW 7-12mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 762215		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.14	s.u.	±0.1 s.u.	P	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	N	NA	MSI	023334-01	12/7/2025
pH 10.00a	9.93	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	6.17	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060.7	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	242.2	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.21	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0938

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1038.2	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1538

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1044.4	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	40° SUNNY 5mph NW	Environment:	GRASS
Multiparameter Water Meter	Make: HORIBA	Model:	Serial Number: AGJTK4XG
Water Level Meter	Make: SOLINST	Model: WT	Serial Number: 534159

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	6.58	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.55	s.u.	±0.1 s.u.	FAIL	YES	7.00	MSI	023334-01	12/7/2025
pH 10.00a	8.20	s.u.	±0.1 s.u.	FAIL	YES	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	PASS	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	253	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0924

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	FAIL	1000	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1328

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	47°- 66°F Windy S 7mph	Environment:	Grass, dust, woods
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: 37 8SNNWF
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202 131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	No	—	MSI	023310-01	11/10/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	024145-01	5/29/2026
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	—	MSI	024072-02	3/21/2026
SC Zero (DI)	10	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	236	mV	±15 mV	P	NO	—	In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	~~0.~~ 98.2	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

10/17/24 AP

242 @ 15°C

ICV (Initial Calibration Verification) Time: 0951

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	975	µS/cm	±5%		—	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1354

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO	—	MSI	024145-01	5/29/2026
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	NO	—	MSI	024072-02	3/21/2026
SC 1000	963	µS/cm	±5%	P	NO	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/17/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Sunny 43°-66° Lmph Wind S	Environment:	Grassy, muddy
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKK
Water Level Meter	Make: ~~Horiba~~ Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.37	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.60	s.u.	±0.1 s.u.	F	yes	7.00	MSI	024145-01	5/29/2026
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO	N/A	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1930	µS/cm	±5%	P	NO		Proactive	3GJ1438	Oct-24
ORP	248	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	98.3	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:20

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.89	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	7.13	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	10.10	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 14:30

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.93	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.02	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1020	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/17/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	48-66 °F, sunny, wind 5 SW 9-20 mph	Environment:	grass, woods
Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number: 762215
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 1/FF2209305 ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	No	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	6.05	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1993.3	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	248.0	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0930

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.95	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1008.2	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1413

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1009.5	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/17/24

AP

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	43° SUNNY COMPASS	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA	Model: U50000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	33459	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.81	s.u.	±0.1 s.u.	FAIL	YES NO	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	13	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	232	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0935

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	1	1	Proactive	3GE1252	May-25
pH 10.00b	9.65	s.u.	±0.15 s.u.	FAIL	YES 10.00	Geotech	3GA1134	Jan-25
SC 1000	999	µS/cm	±5%	PASS	NO	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1413

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	997	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.20	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

17

APP 10/17/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Sunny 57°-79° 5mphWind S	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKR
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.29	s.u.	±0.1 s.u.	F	yes	3.99	MSI	023310-01	11/10/2025
pH 7.00a	6.59	s.u.	±0.1 s.u.	F	yes	7.01	MSI	024145-01	5/29/2026
pH 10.00a	10.18	s.u.	±0.1 s.u.	F	yes	10.02	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	N/A	Proactive	3GJ1438	Oct-24
ORP	252	mV	±15 mV	P	NO	N/A	In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.4	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:30

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	6.97	s.u.	±0.15 s.u.	P		Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P		Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 15:20

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.07	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1010	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/21/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	56° SUNNY 5 MPH S	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	A2JTK4XG	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	33459	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	231	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.03	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0929

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	6.99	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1528

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/21/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Mostly Cloudy 57°-75° 10mph Wind South	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKK
Water Level Meter	Make: Aeron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	7.58	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.08	s.u.	±0.1 s.u.	F	yes	7.00	MSI	024145-01	5/29/2026
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	NO	N/A	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	NO	N/A	Proactive	3GJ1438	Oct-24
ORP	248	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	97.7	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:08

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.95	s.u.	±0.15 s.u.	F	yes / 3.99	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1509

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.05	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	9.96	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1030	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/22/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	56°C CLOUDY 10 MPH S	Environment:	GRASS
Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: SOLINST	Model: WT	Serial Number: 33459

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	232	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.20	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0959

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1509

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.83	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/22/24

APP 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Cloudy 55°-65° 13mph Wind NW	Environment:	Grassy, Gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKK
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	NO		MSI	024145-01	5/29/2026
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	NO		MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	NO		Proactive	3GJ1438	Oct-24
ORP	245	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	No		Macron	#000228049	8/26/2025
DO (Saturated)	97.8	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:03

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.94	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 15:05

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.01	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1010	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	56-67°F, sunny, wind NW 14-25 mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 762215		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF220930SML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	N	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	N	NA	MSI	024145-01	5/29/2026
pH 10.00a	9.88	s.u.	±0.1 s.u.	F	Y	10.04	MSI	024072-02	3/21/2026
SC Zero (DI)	5.09	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2043.0	µS/cm	±5%	↓	↓	↓	Proactive	3GJ1438	Oct-24
ORP	238.1	mV	±15 mV	↓	↓	↓	In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.09	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	98.01	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0910

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	↓	↓	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	1014.4	µS/cm	±5%	↓	↓	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1520

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024145-01	5/29/2026
pH 10.00a	10.06	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024072-02	3/21/2026
SC 1000	1031.1	µS/cm	±5%	↓	↓	↓	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	55°C CLOUDY 13mph NNW	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	334559	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.50	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023310-01	11/10/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	024145-01	5/29/2026
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	232	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0918

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1505

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.13	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Sunny 46°-68° 4mph Wind SE	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PRK
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.09	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.00	s.u.	±0.1 s.u.	F	yes	7.00	MSI	024145-01	5/29/2026
pH 10.00a	10.12	s.u.	±0.1 s.u.	F	yes	10.00	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO		Proactive	3GJ1438	Oct-24
ORP	245	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 9:17

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.77	s.u.	±0.15 s.u.	F	yes / 4.00	Proactive	3GE1074	May-25
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 15:10

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1020	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Cody Wilhelm Date: 10/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	36 - 70°F m. Sunny wind SSE 7-15mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF-220730SML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.18	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	N	NA	MSI	024145-01	5/29/2026
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	5.89	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2027.1	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	241.6	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.25	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0730

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1019.2	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	NA	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1030.6	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	10/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESIKE	Location:	DUCK CREEK
Weather:	44° SUNNY 4MPH ESE	Environment:	GRASS
Multiparameter Water Meter	Make: HORIBA	Model: U5000	Serial Number: AGJTK4XG
Water Level Meter	Make: SOLINST	Model: WT	Serial Number: 334159

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	232	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.13	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0902

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	998	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1504

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	PASS	NO	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.52	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	64°-49° mostly sunny wind 3 mph SW	Environment:	landfill grassy
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTKTXG
Water Level Meter	Make: WT	Model: Heron	Serial Number: 19FF220213 1 mL

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	245	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0941

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1028	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1435

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin M Date: 28-Oct-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek, Edwards Power Station
Weather:	82°-65° mostly sunny wind 16mph	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTKTXG	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19F-220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.58	s.u.	±0.1 s.u.	F	Y	3.95	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	N	—	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N	—	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	N	—	Proactive	3GJ1438	Oct-24
ORP	238	mV	±15 mV	P	N	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.2	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0918

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.72	s.u.	±0.15 s.u.	F	Y 4.00	Proactive	3GE1074	May-25
pH 7.00b	7.23	s.u.	±0.15 s.u.	F	Y 7.00	Proactive	3GE1252	May-25
pH 10.00b	10.46	s.u.	±0.15 s.u.	F	Y 10.00	Geotech	3GA1134	Jan-25
SC 1000	975	µS/cm	±5%	P	N	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1600

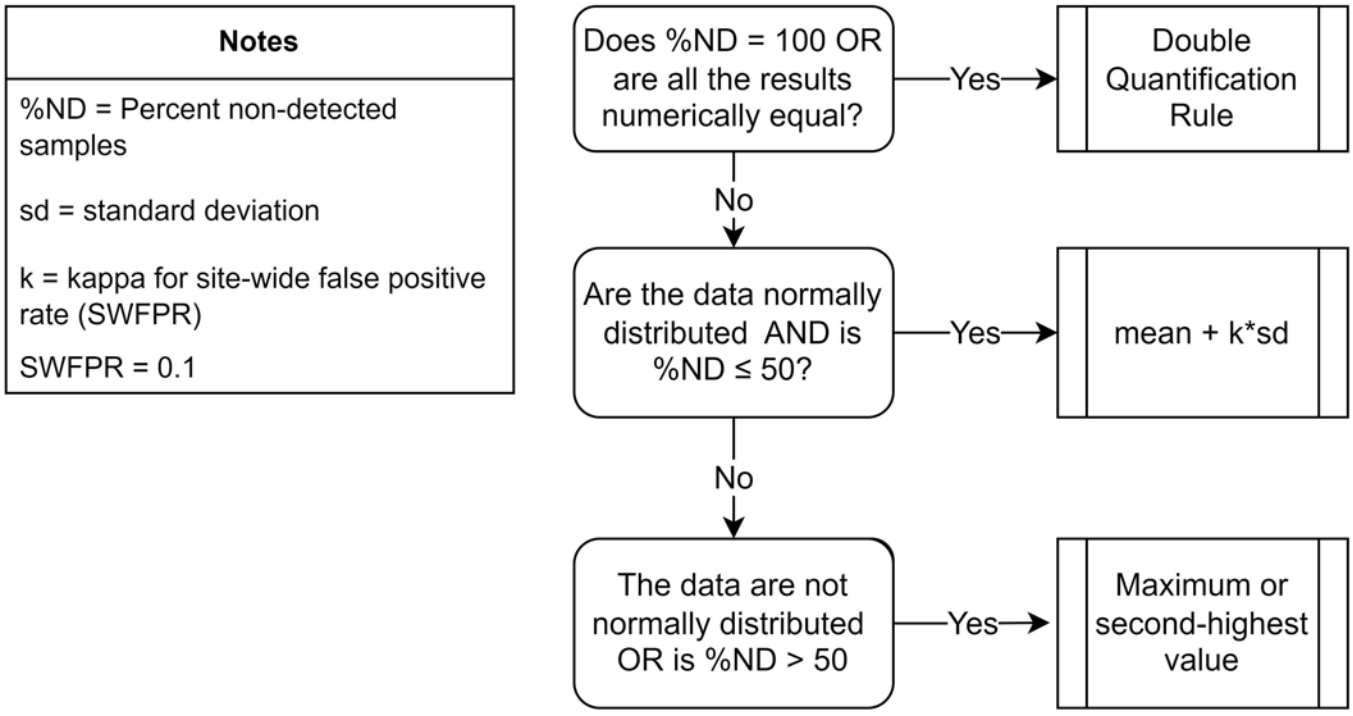
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	—	MSI	023219-02	8/9/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.			—	MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.			—	MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%			—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L			—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	+		—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore Date: 29-Oct-24

APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION OF BACKGROUND VALUES



When data are not normally distributed or %ND > 50, the maximum value is used if the background sample size is < 60. Where the background sample size is ≥ 60, the achievable per-constituent false positive rates for the maximum and second-highest background values will be compared, and the background value with the achievable per-constituent false positive rate that is closest to, but does not exceed, the target per-constituent false positive rate of 0.015% is used.

APPENDIX C
ALTERNATIVE SOURCE DEMONSTRATIONS

Intended for

Illinois Power Resources Generating, LLC

Date

April 16, 2024

Project Number

1940103584-003

40 C.F.R. § 257.94(E)(2): ALTERNATIVE SOURCE DEMONSTRATION

DUCK CREEK POWER PLANT

GYPSUM MANAGEMENT FACILITY POND

CCR UNIT 203

RAMBOLL Bright ideas. Sustainable change.

CERTIFICATIONS

I, Eric J. Tlachac, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Eric J. Tlachac
Qualified Professional Engineer
062-063091
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: April 16, 2024

I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Brian G. Hennings
Professional Geologist
196.001482
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: April 16, 2024

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CONTENTS

TABLES (IN TEXT)

FIGURES (IN TEXT)

FIGURES (ATTACHED)

APPENDICES

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternative Source Demonstration
bgs	below ground surface
CCR	coal combustion residuals
CCR Rule	40 C.F.R. § 257 Subpart D
cm/s	centimeters per second
D13	Detection Monitoring Round 13
DCPP	Duck Creek Power Plant
GMF	Gypsum Management Facility
HDPE	high-density polyethylene
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
LOE	line of evidence
mg/L	milligrams per liter
NAVD88	North American Vertical Datum of 1988
NRT/OBG	Natural Resource Technology, an OBG Company
oz/yd^2	ounce per square yard
PMP	potential migration pathway
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	Statistically Significant Increase
TDS	total dissolved solids
UA	Uppermost Aquifer
UPL	Upper Prediction Limit
USGS	United States Geological Survey

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.94(e)(2) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of Statistically Significant Increases (SSI) over background for groundwater constituents listed in Appendix III of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSI(s), or that the SSI(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (Alternative Source Demonstration [ASD]).

This ASD has been prepared on behalf of Illinois Power Resources Generating, LLC by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to provide pertinent information pursuant to 40 C.F.R. § 257.94(e)(2) for the Duck Creek Power Plant (DCPP) Gypsum Management Facility (GMF) Pond located near Canton, Illinois.

The thirteenth semiannual detection monitoring samples (Detection Monitoring Round 13 [D13]) were collected from July 18 through July 27, 2023, and analytical data were received on October 19, 2023. In accordance with 40 C.F.R. § 257.93(h)(2), statistical analysis of the data to identify SSIs of 40 C.F.R. § 257 Subpart D (CCR Rule) Appendix III parameters over background concentrations was completed by January 17, 2024, within 90 days of receipt of the analytical data. The statistical determination identified the following SSIs at compliance monitoring wells:

- Calcium at wells G54L, G57S, and G60S
- Chloride at well G54L
- Sulfate at wells G54L and G60L
- Total dissolved solids (TDS) at wells G54L, G54S, G57S, G60L, G60S, G64L, and G64S
- pH at well G60L

In accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2023), all wells with SSIs were resampled. Following evaluation of analytical data from the resample event, the following SSIs remained:

- Calcium at wells G54L, G57S, and G60S
- Chloride at well G54L
- Sulfate at wells G54L and G60L
- TDS at wells G54L, G54S, G57S, G60L, G60S, and G64L
- pH at well G60L

Pursuant to 40 C.F.R. § 257.94(e)(2), the lines of evidence (LOEs) presented in **Section 3** demonstrate that sources other than the GMF Pond were the cause of the SSIs listed above. This ASD was completed by April 16, 2024, within 90 days of determination of the SSIs (January 17, 2024), as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The DCPP is located in Fulton County, in central Illinois, approximately 9 miles southeast of the town of Canton. Duck Creek Cooling Pond is located east of the power plant and the GMF Pond with agricultural land surrounding the entire property. This CCR unit is composed of gypsum present within the GMF Pond at a thickness ranging from less than 1 to 22 feet. The thickest areas of gypsum are to the north and west within the GMF Pond and thin toward the south end of the GMF Pond.

2.2 Geology and Hydrogeology

The DCPP geologic and hydrogeologic setting summarized below is obtained from published sources, hydrogeologic investigation data, and boring data collected during site investigations conducted from 2005 to 2021 (Natural Resource Technology, an OBG Company [NRT/OBG], 2017; Ramboll, 2021).

Regionally, the DCPP is positioned on the glacial uplands above the Illinois River in the Ancient Illinois Floodplain of the Till Plains Section of the Central Lowland Province. The undisturbed unlithified materials consist of loess, diamictons, and lacustrine/alluvial deposits. The area is flat to gently rolling uplands that are dissected by deeply incised streams that are tributaries to major river systems.

Several large former surface coal mines are present in the vicinity. Strip mining in the region since the 1930s disrupted the natural stratigraphy down to the Springfield (No. 5) Coal unit. The strip mining activity produced rough topography from soil piles and depressions, often ponded with water. Unlithified materials are present in the excavated strip mine spoils and have been mixed due to the surface mining activities. Mining operations in the area have ceased.

The uppermost bedrock stratum in the area is the Carbondale Formation of the Kewanee Group of the Pennsylvanian System. The Carbondale Formation consists primarily of shaley siltstone and silty shale and includes the Springfield (No. 5) Coal and other coal units. Bedrock occurs within approximately 50 feet of the ground surface in this area.

Quaternary deposits in the Canton area consist mainly of loess, diamictons, and lacustrine/alluvial deposits that were deposited during Illinoian and Wisconsinian glaciations. Four hydrostratigraphic units have been identified at the DCPP based on stratigraphic relationships and common hydrogeologic characteristics, and are summarized as follows (beginning at the ground surface):

Uppermost Aquifer (UA) – At the GMF Pond, this unit includes the Peoria/Roxanna Loess, the upper Radnor Till, and shallow sands. These units are hydraulically connected and underlain by a thick till sequence of the Radnor Till. The shallow sand zone is the primary migration pathway within these hydraulically connected formations. The shallow sands are laterally extensive across the site, vary in thickness from less than 1 to 18 feet, and are generally located at elevations of 570 to 590 feet North American Vertical Datum of 1988 (NAVD88). The shallow sand is saturated. During construction of the GMF Pond, sand was completely removed everywhere it was encountered (mainly the northeast corner and southwest corner of the pond), putting the

base of the liner in contact with clay of the lower Radnor Till. Sand outside the GMF Pond footprint remains in place.

The Peoria/Roxanna Loess within the UA has been identified as a potential migration pathway (PMP). While the primary migration pathway (*i.e.*, the UA) is the shallow sand of the UA, impacts have the potential to migrate within groundwater in the overlying Peoria/Roxanna Loess. The PMP is saturated at depths of 3.5 to 11 feet below ground surface (bgs). While the PMP and UA are hydraulically connected, groundwater flow in the PMP is expected to be primarily vertical, with the majority of the horizontal migration expected to occur within the UA.

Lower Radnor Till/Lower Confining Unit – Underlying the UA, the lower Radnor Till is approximately 42 to 58 feet thick. Previous hydrogeologic studies indicate discontinuous sand lenses observed within the till are not hydraulically connected to the UA.

Bedrock Confining Unit – The bedrock encountered across the site consists of low permeability shaley siltstone, silty shale, and coal beds of the Carbondale Formation, and is estimated to have a thickness of approximately 300 to 400 feet.

Groundwater elevations (referenced to NAVD88) in the UA near the GMF Pond are shown on **Figure 1**. Groundwater elevations were measured on July 17, 2023, prior to a combined sampling event at the DCPP for the three CCR units located there and for multiple monitoring programs required by both federal and state regulatory agencies. Groundwater elevations at the GMF Pond ranged from 614.09 to 587.03 feet NAVD88.

2.3 GMF Pond Groundwater and Porewater Monitoring

The CCR Rule groundwater monitoring system for the GMF Pond is shown on **Figure 1**. Monitoring wells G02S, G50S, and G51S are used to monitor background groundwater quality for the GMF Pond. These wells are located north (G02S), northwest (G50S), and west (G51S) of the GMF Pond. The compliance monitoring wells screened in the UA are G54S, G57S, G60S, and G64S. The compliance monitoring wells screened in the PMP are G54L, G60L, and G64L.

GMF Pond source water samples are collected from the GMF Pond at location X301, a riser pipe from the ring drain beneath the pond that collects leachate and pond surface water. The most recent pond water sample was collected from X301 on July 20, 2023. Location XTPW02 is a temporary monitoring well installed in the gypsum within the pond for collection of porewater (**Figure 1**). XTPW02 was last sampled in June of 2021.

3. ALTERNATIVE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the GMF Pond (the CCR unit) caused the SSIs. LOEs supporting this ASD include the following:

1. The GMF Pond has a double geomembrane liner designed to prevent CCR contact with groundwater.
2. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits.
3. The major ion composition of GMF groundwater is similar to background and distinct from GMF Pond leachate/porewater.
4. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
5. Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L.

These LOEs are described and supported in greater detail below. LOEs 1, 2, and 3 address SSIs at all wells. LOE 4 addresses the calcium, chloride, and TDS SSIs at wells G54L, G54S, G57S, G60S, and G64L. LOE 5 addresses the sulfate, pH, and TDS exceedances at G60L.

3.1 LOE #1: The GMF Pond Has a Double Geomembrane Liner Designed to Prevent CCR Contact with Groundwater

Construction of the GMF Pond was in accordance with Water Pollution Control Permit 2017-EO-62336 granted by the Illinois Environmental Protection Agency (IEPA). The GMF Pond liner system includes the following components:

60-mil high-density polyethylene (HDPE) geomembrane liner

Minimum 12-inch soil cushion layer (up to 24 inches thick in select areas on the side slope)

4 ounce per square yard (oz/yd^2) non-woven geotextile filter fabric

12-inch highly permeable granular drainage sand layer

10 oz/yd^2 non-woven geotextile filter fabric

60-mil HDPE geomembrane liner

Geosynthetic clay liner with a manufacturer's published hydraulic conductivity estimate of 5×10^{-9} centimeters per second (cm/s)

36-inch compacted clay layer with a maximum hydraulic conductivity of 9×10^{-7} cm/s based upon laboratory testing of samples collected from the site

The IEPA-approved GMF Pond double geomembrane liner system far exceeds the design criteria for a composite liner for new CCR landfills established by 40 C.F.R. § 257.70(b).

The double geomembrane liner creates a barrier to groundwater flow through the CCR managed in the GMF Pond, suggesting that the GMF Pond is not the source of the SSIs.

3.2 LOE #2: Boron Concentrations in Compliance Groundwater Monitoring Wells Do Not Exceed Background Limits

Boron is a potential indicator of CCR impacts to groundwater due to its leachability from CCR, low occurrence as an anthropogenic contaminant, and mobility in groundwater (EPRI, 2012). If boron concentrations are present above background groundwater concentrations in CCR porewater or leachate, then groundwater impacted by CCR would be expected to contain boron concentrations elevated above the background Upper Prediction Limit (UPL). The UPL is an upper bound on background concentrations calculated for comparing compliance well results to background. Porewater and leachate from the GMF Pond have boron concentrations greater than the UPL of 0.059 milligrams per liter (mg/L). Boron concentrations detected in compliance monitoring wells with SSIs are summarized in **Table A** below. All compliance wells with SSIs had concentrations of boron at or below the UPL, indicating that these wells have not been affected by CCR. Therefore, the GMF Pond is not the source of the SSIs.

Table A. Summary of Boron Concentrations in Compliance and Porewater Wells

	G54S	G54L	G57S	G60L	G60S	G64S	G64L	X301
Boron (mg/L) (UPL=0.059 mg/L)	0.038	0.032	0.013	0.031	0.031	0.015	0.041	13.0

3.3 LOE #3: The Major Ion Composition of GMF Pond Groundwater is Similar to Background and Distinct From GMF Pond Leachate/Porewater

Piper diagrams graphically represent the major ion composition of aqueous solutions. A Piper diagram displays the position of water samples relative to their major cation and anion content on the two lower triangular portions of the diagram, providing the information which, when combined on the central, diamond-shaped portion of the diagram, identifies the compositional categories or groupings (hydrochemical facies). **Figure A** on the following page is a Piper diagram that displays the ionic composition of groundwater samples from the background and compliance wells associated with the GMF Pond, as well as leachate and porewater. Leachate samples were collected from the ring drain (X301) underlying the GMF Pond during the D13 sampling event. Ionic composition of a porewater sample collected in June of 2021 from a temporary monitoring well installed in the gypsum within the pond (XTPW02) is also provided for reference. Wells with calcium, chloride, and/or TDS SSIs at wells G54L, G54S, G57S, G60S, G60L, and G64L are circled in red. The major ion composition of G60L is discussed in **Appendix A.**

It is evident from the Piper diagram that the background (brown symbols) and compliance (blue symbols) wells are in the calcium-bicarbonate hydrochemical facies, and the leachate and porewater (light and medium green symbols, respectively) are in the calcium-sulfate hydrochemical facies. The ionic composition of groundwater from the background and compliance wells demonstrate strong similarity. Additionally, the ionic compositions of groundwater from the background and compliance wellsand leachate/porewater are dissimilar. Together, the similarity of background and compliance groundwater ionic composition and the differences between groundwater and leachate/porewater indicate that the GMF Pond is not the source of CCR constituents detected in GMF Pond groundwater.

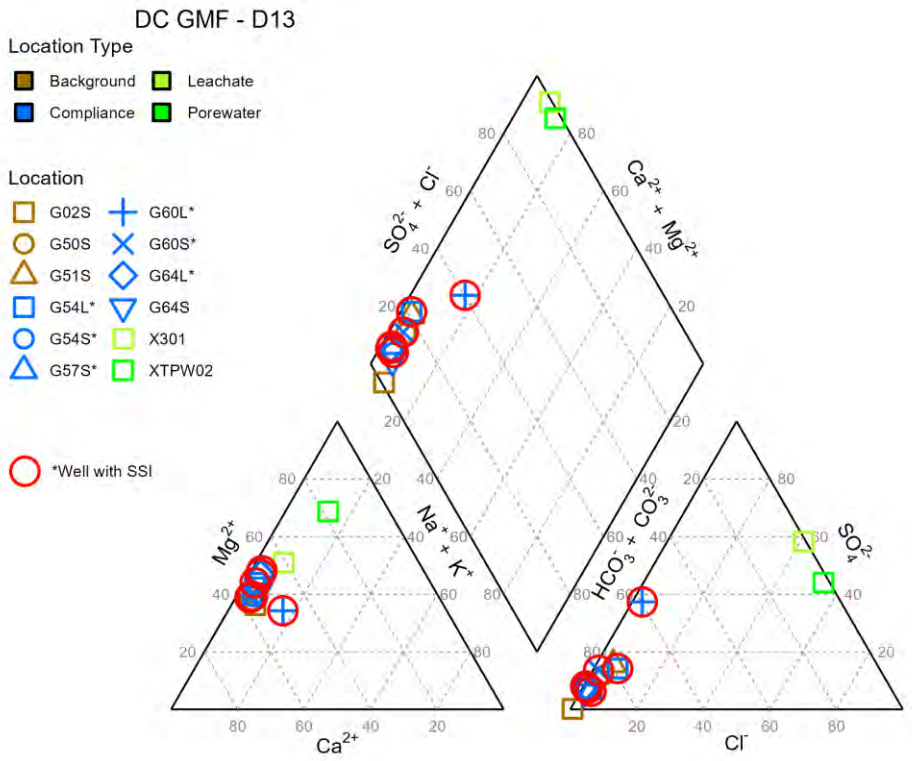

Figure A. Piper Diagram Showing Ionic Composition of Groundwater and Pond Water Samples Associated with the GMF Pond (brown = background wells, blue = compliance wells, green = leachate/porewater). Wells with calcium, chloride, and/or TDS exceedances at wells G54L, G54S, G57S, G60S, G60L, and G64L are circled in red.

3.4 LOE #4: Proximity of the GMF Pond to Historical Mining Activity and Related Groundwater Quality Impacts

The area surrounding the GMF Pond consists primarily of unmined coal and reclaimed surface mine land. The extent of nearby surface mines is shown in the attached **Figure 2**. The coal in this area has a sulfur content greater than 2.5 pounds of sulfur per million British Thermal Units, the highest sulfur classification used by Illinois State Geological Survey (ISGS, 1997).

The coal in the area varies in depth from 0 to 50 feet bgs. The CCR Rule groundwater monitoring wells for the GMF Pond are screened between 23 and 48 feet bgs. The compliance monitoring wells are located approximately 2,000 to 4,000 feet south-southeast (downgradient) of the nearby surface mines (**Figure 2**). Potentiometric data indicate that groundwater generally flows to the east and south towards the GMF Pond and current and former portions of the Cooling Pond located east of the GMF Pond, as shown on the attached **Figure 3**.

A study of groundwater quality near surface coal mines, performed by the United States Geological Survey (USGS, 2006), provides data on the effects of mines on groundwater quality. The study evaluated regional differences in major ionic composition of groundwater in unmined and mined areas using Piper diagrams (**Figure B** on the following page). Groundwater samples collected from wells downgradient of the reclaimed mine areas in the study ranged from primarily calcium-

magnesium carbonate-bicarbonate type (calcium-bicarbonate hydrochemical facies) to a lesser amount of calcium-magnesium sulfate type (calcium sulfate hydrochemical facies). The calcium-bicarbonate groundwater documented in the vicinity of reclaimed surface coal mines is similar to the ionic composition of groundwater samples collected from both background and compliance groundwater monitoring wells at the GMF Pond (see **Figure A**).

State of Illinois groundwater quality regulations (Title 35 of the Illinois Administrative Code [35 I.A.C.] § 620 - Groundwater Quality) acknowledge that water quality is adversely affected in areas where coal mining activity has occurred. The groundwater quality standards for TDS, chloride, iron, manganese, sulfate, and pH within previously mined areas are the existing concentrations of these constituents in groundwater (35 I.A.C. § 620.440c).

The proximity of the GMF Pond to historic coal mining activity and similarities in the ionic composition of groundwater in areas of reclaimed surface coal mines and in the GMF Pond groundwater samples indicates historic mining activity as an alternative source of the SSIs at the GMF Pond.

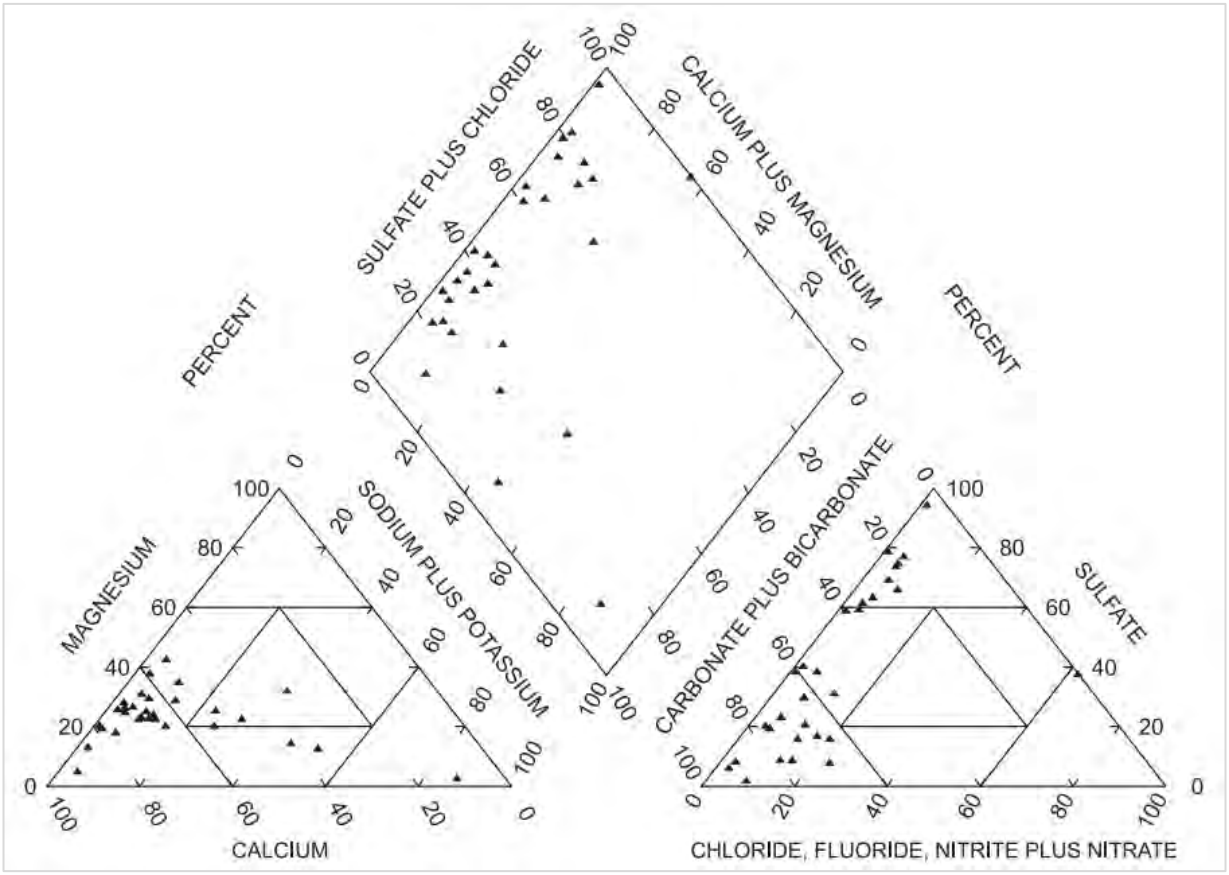

Figure B. Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

3.5 LOE #5: Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L

Multivariate statistical analysis of the groundwater and GMF Pond leachate/porewater data, review of ionic composition of both, and literature review were performed by Life Cycle Geo, LLC to support the conclusion that the pH, sulfate, and TDS exceedances at G60L are due to the influence of a localized, native peat deposit located upgradient of the well. Details of the analysis are included as **Attachment A**. The following conclusions were made based on the results of the evaluation:

- Principal component analysis shows that the groundwater signature at G60L is similar to background and compliance well groundwater signatures and distinct from the leachate signature.
- The major ion composition of groundwater at G60L is inconsistent with influence from leachate due to a low proportion of chloride, an indicator of CCR impacts in groundwater, and is similar to the major ion composition of nearby wells.
- A localized native peat deposit located upgradient of G60L is the likely source of the pH, sulfate, and TDS exceedances based on literature review of peat influence on groundwater conditions, evaluation of other wells downgradient of the peat deposit, and the absence of CCR indicators boron and chloride.

4. CONCLUSIONS

Based on the five LOEs below, it has been demonstrated that the GMF Pond is not the source of SSIs of calcium at G54L, G57S, and G60S; chloride at G54L; sulfate at G54L and G60L; TDS at G54L, G54S, G57S, G60L, G60S, and G64L; and pH at G60L.

1. The GMF Pond has a double geomembrane liner designed to prevent CCR contact with groundwater.
2. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits.
3. The major ion composition of GMF Pond groundwater is similar to background and distinct from GMF Pond leachate/porewater.
4. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
5. Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L.

This information serves as the written ASD prepared in accordance with 40 C.F.R. § 257.94(e)(2) that the SSIs observed during the detection monitoring program were not due to the GMF Pond. Therefore, an Assessment Monitoring Program is not required and the GMF Pond will remain in detection monitoring.

5. REFERENCES

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FIGURES

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- PORE WATER WELL
- CCR SOURCE WATER SAMPLE
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE

0 150 300 Feet

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATIONS IN BRACKETS WERE OBTAINED OUTSIDE OF THE 24-HOUR PERIOD FROM INITIATION OF DEPTH TO GROUNDWATER MEASUREMENTS BUT WITHIN THE SAME SAMPLING EVENT.
3. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988

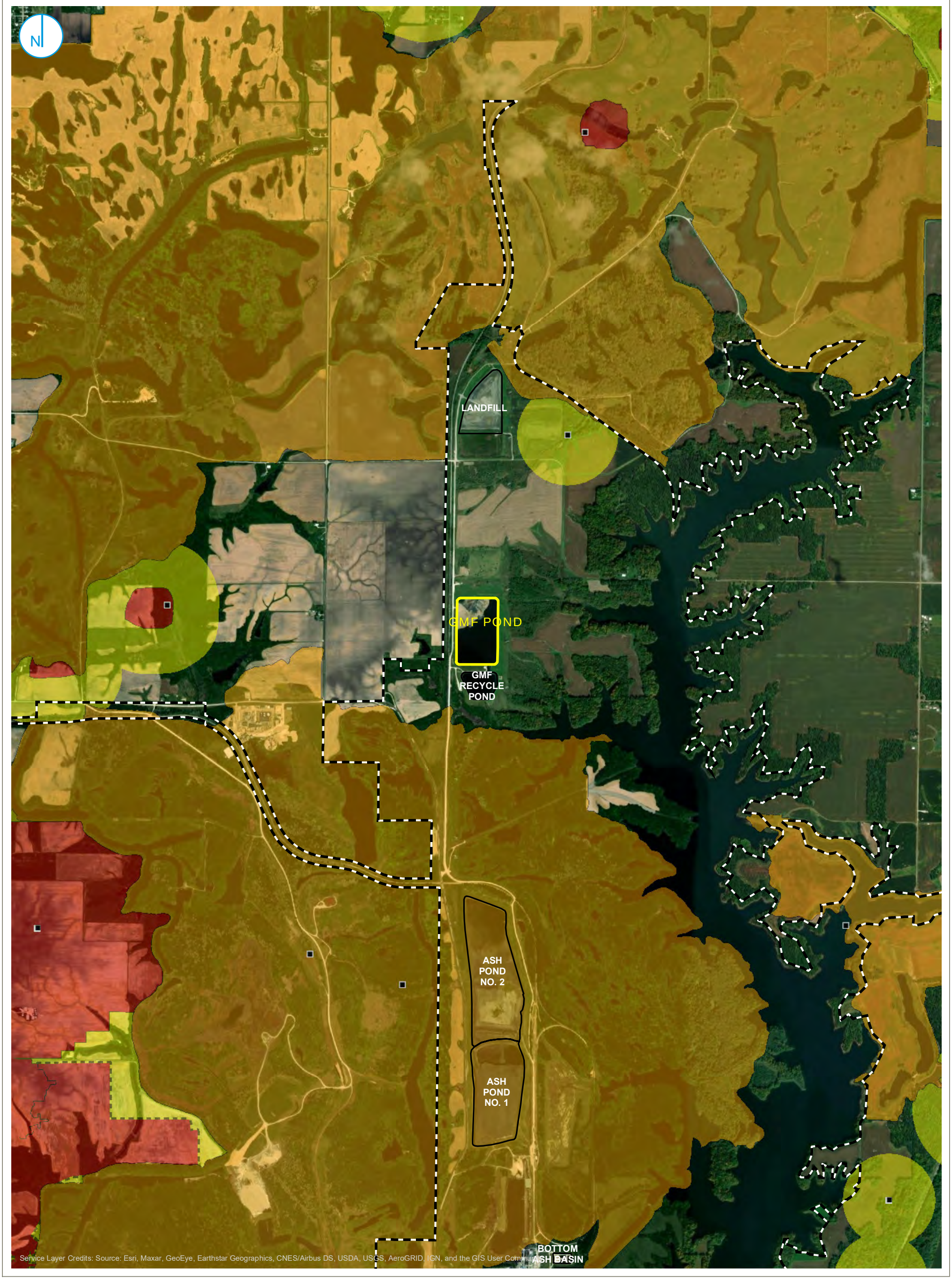
SAMPLING LOCATIONS AND POTENTIOMETRIC SURFACE MAP JULY 17, 2023

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
GMF POND
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

RAMBOLL



- COAL MINE SHAFT
- SURFACE COAL MINE
- UNDERGROUND COAL MINE UNDERGROUND
- MINE BUFFER REGION
- REGULATED UNIT (GMF POND)
- SITE FEATURE
- PROPERTY BOUNDARY

0 1,000 2,000 Feet

COAL MINE COVERAGE AREA

FIGURE 2

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- PORE WATER WELL
- CCR SOURCE WATER SAMPLE
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

0 300 600 Feet

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATIONS IN BRACKETS WERE OBTAINED OUTSIDE OF THE 24-HOUR PERIOD FROM INITIATION OF DEPTH TO GROUNDWATER MEASUREMENTS BUT WITHIN THE SAME SAMPLING EVENT.
3. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988

LANDFILL AND GYPSUM MANAGEMENT FACILITIESPOTENTIOMETRIC SURFACE MAP JULY 17, 2023

ALTERNATIVE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

APPENDIX A
TECHNICAL MEMORANDUM: DRAFT GEOCHEMICAL ANALYSIS OF DUCK CREEK GROUNDWATER IN SUPPORT OF AN ALTERNATE SOURCE DEMONSTRATION (ASD)

TECHNICAL MEMORANDUM

DATE April 15, 2024 **Reference No.** 23RAM01-1

TO Brian G. Hennings - Ramboll
Eric Tlachac - Ramboll

CC Stu Cravens - Vistra

FROM Shannon Zahuranec, Allie Wyman, and Tom Meuzelaar **EMAIL:** shannon@lifecyclegeo.com

GEOCHEMICAL ANALYSIS OF DUCK CREEK GMF POND GROUNDWATER IN SUPPORT OF AN ALTERNATIVE SOURCE DEMONSTRATION (ASD)

1.0 EXECUTIVE SUMMARY

Life Cycle Geo, LLC. (LCG) has completed a review of geochemical conditions at monitoring well G60L in support of an alternative source demonstration (ASD) in preparation by Ramboll Americas Engineering Solutions, Inc. (Ramboll) for Illinois Power Resources Generating, LLC. The G60L monitoring well monitors conditions in the Loess unit (identified as a potential migration pathway to the uppermost aquifer) downgradient of the Duck Creek Power Plant (DC) Gypsum Management Facility Pond (GMF Pond). Pursuant to 40 C.F.R. § 257 Subpart D (CCR Rule), monitoring well G60L exhibits statistically significant increases (SSIs) of parameters relative to background concentrations after the D13 monitoring event completed July 18 through July 27, 2023, including pH, sulfate, and total dissolved solids (TDS). This technical review considered all available groundwater and solid-phase chemical analysis and empirical field observations, and utilized multivariate statistical analysis to conclude the SSIs at G60L are due to an alternative source and are unrelated to the GMF Pond. Further, information pertaining to flow conditions, lithology, and solid-phase geochemistry are utilized to conclude that the likely source of low pH and elevated sulfate and TDS observed at G60L is a localized pocket of native peat identified in boring logs immediately upgradient of G60L.

2.0 GROUNDWATER CONDITIONS

Monitoring well G60L is located on the eastern side and downgradient of the GMF Pond (Attachment 1). From 2021 through October 2023 (the period of groundwater monitoring at this well), pH at G60L is consistently lower than background groundwater pH, and sulfate and TDS are consistently higher (Table 1). Sulfate is found to be the major component of the measured TDS at G60L, representing approximately 30% of the total TDS concentration, and is the primary driver of the TDS SSI. As such, this analysis focuses on the source of the pH and sulfate SSIs, with sulfate used as proxy for TDS.

Table 1: Concentration Ranges for Select Constituents in DC GMF Pond Groundwater.

	pH	Sulfate (mg/L)	TDS (mg/L)
G60L	5.82-6.42	150-190	510-660
Background	6.42-7.26	ND-60	290-610

Notes: Concentration ranges represent the minimum and maximum concentration measured between 2021 and November 2023.

3.0 MULTIVARIATE PRINCIPAL COMPONENTS ANALYSIS

3.1 APPROACH

Groundwater chemistry data are by nature multivariate datasets given the high number of parameters observed per sampling location and date. With such a large number of variables, advanced statistical analysis of multivariate groundwater data can provide important insights into spatial and chemical relationships influencing constituent distribution and compliance in groundwater. The multivariate technique Principal Components Analysis (PCA) is used to interrogate the groundwater chemistry around the GMF Pond.

PCA is a multivariate technique that reduces dataset dimensionality to its principal, independent components thereby revealing the inner structure of the dataset. Multivariate techniques such as PCA are valuable because they identify variables that are highly dependent on each other but do not inherently provide insights into water origin, type, or evolution. As an example, calcium, magnesium, and hardness are typically highly correlated in groundwater datasets, but this relationship is known and does not provide additional insight towards the identification of water types and geochemical processes that describe water quality changes. Reducing multivariate data dimensionality reduces redundant information, revealing inner structures in the data that might otherwise be obscured by these dependencies. These structures might include revealing groups of related variables, changing chemical evolution through time, or spatial locations with similar chemical signatures.

PCA results are most easily viewed on biplots, which depict the sample population plotted on two axes, each representing a principal component. The principal components are created from a linear combination of the original variables in the dataset and variance in the data. For natural compositional datasets, the population variance can often be expressed as six or seven principal components (in some cases less and in others, more), each representing decreasing amounts of variance in the data while remaining uncorrelated to previous principal components. Typically, the first few principal components represent significant dataset variance and include a larger number of variables. The principal components are visualized using biplots with the variables expressed as vectors; the location of groups of samples relative to component vectors provides insight into geochemical relationships among groups of variables and samples.

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3.2 DATA PREPARATION

In order to perform multivariate analysis, it is first necessary to prepare the dataset. Raw chemical data requires preparation prior to analysis because the data often contains values in two forms unsuitable for advanced analytics: 1) measurements reported below a method detection limit (MDL), referred to as censored data, and 2) missing values. For this work any sample or analyte with a high percentage (≥40%) of missing and/or censored data was assessed for meaningful statistical variance. If variance was determined to be low, the sample or analyte was removed, otherwise data was included in the analysis. Any remaining censored data was converted to half the MDL. Remaining missing values were imputed, a method of assigning an estimated value that accounts for the entire distribution of the material's composition (Sanford et al., 1993) and also takes into consideration the values associated with samples of similar composition. Imputation was done with a nearest neighbor algorithm and resulting values were checked against the overall data distribution for both the analyte and sample to ensure representative results. The resulting dataset includes both compliance wells and other monitoring wells, incorporates data from multiple lithologic units, and spans sampling events from 2014 through 2023. The dataset contains 15 measured analytes, including the hydrogen ion (H+), which represents acidity in groundwater and is proportional to pH. The final dataset contained 1,770 values, 75 of which were imputed. This data represents both the most recent data measured at the GMF Pond as well as the most complete set of regularly measured and detectable analytes.

PCA also requires transformation of the dataset to address the numeric closure problem inherent within chemical compositional datasets (Aitchison, 1986). Numeric closure can often occur in water quality data since water quality concentrations are not completely independent. To address this issue, all data was converted to the same units and the centered-log ratio transformation (CLR; Aitchison 1986; Egozcue et al. 2011) was applied to the prepared dataset. In practice, closure only significantly affects elements present in large concentrations (e.g., major ions in typical water quality samples), but for consistency the entire dataset (i.e., including trace metals) was CLR-transformed.

All data preparation was conducted using python programming language. Only total (i.e., unfiltered) concentrations of major ions and metals were used in this analysis as those data are both relatively complete and consistent across the wells around the GMF Pond and are the parameters of interest for regulatory purposes.

3.3 FINDINGS

A biplot for principal components 1 and 2 (PC1 and PC2) is provided in Attachment 2. PC1 explains approximately 50% of the statistical variance in the entire water quality dataset, and imposes the

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dominant compositional structure observed in the biplot. PC2 explains approximately 14% of the variability in the dataset.

The compositional vectors on the biplot and their position/spacing reveal the following key insights into groundwater geochemistry at the GMF Pond:

1) Groundwater samples plot along a linear trend from the upper left quadrant toward the lower left quadrant, with significant overlap between background, compliance, and monitoring wells. This suggests overall groundwater chemistry at compliance wells and monitoring wells is compositionally similar to background conditions.
2) Data from G60L plots between H+, calcium, sodium, and sulfate vectors, indicating in this case the concentrations are relatively high compared with other locations consistent with the pH and sulfate SSIs at this location. Monitoring well G50L also plots between these vectors, suggesting possible compositional end members distinct from the main cluster of background and compliance wells.
3) The majority of porewater and leachate samples plot in the upper right quadrant of the biplot, near the boron, fluoride, and molybdenum vectors. These samples plot far from the groundwater samples, indicating the chemistry of the porewater and leachate is distinct from the chemistry of the groundwater. There are three leachate samples that plot away from the main body of leachate data, with one plotting in the lower right quadrant near the magnesium and chloride vectors. These three samples are (1) chemically distinct from the groundwater samples, (2) irregularly spaced in time, and (3) likely represent anomalous conditions unique to the GMF Pond. These samples are discussed further in Section 4.2.

4.0 MAJOR ION DISTRIBUTION

4.1 APPROACH

Piper diagrams are a useful way to classify water samples based on major ion chemistry. The diagrams include separate ternary anion and cation proportion plots and a central diamond plot for classifying combined cation/anion predominance for overall classification. Piper diagrams account for major ion proportionality, but not for actual concentrations nor trace element chemistry, an important contrast and complement to PCA.

The Piper diagram for the GMF Pond is provided in Attachment 3. Given the large number of sampling locations and sampling instances, the data plotted here is limited to background, leachate, and groundwater wells in the immediate vicinity of G60L over the same time period as the samples included in the PCA. This provides the clearest depiction of both the site-wide data and localized geochemistry around G60L and allows for ease of comparison to the PCA. To provide a more robust evaluation of the local geochemistry in the area of the GMF Pond and to increase the density of

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datapoints at wells near G60L, the groundwater wells immediately adjacent to G60L are presented as a combination of dissolved and total major ions, rather than exclusively total ions. The difference between total and dissolved major ions was determined qualitatively through comparison of values when both total and dissolved were measured. No major differences were observed, therefore when total phase data was not available, dissolved data was used in place.

4.2 FINDINGS

The primary finding from the Piper diagram is that groundwater at G60L exhibits a major ion composition that is distinct from the GMF Pond leachate. The groundwater samples near G60L all have consistent cation proportions with almost equal distributions of calcium and magnesium, consistent with other compliance groundwater wells around the GMF Pond (Ramboll 2024). The leachate samples differ in that they primarily show a more magnesium-dominant signature. Similarly, the anion proportions of groundwater are distinct from leachate, particularly with respect to chloride. The groundwater samples all show low chloride proportion but exhibit a wide range of sulfate proportion. In contrast, the leachate shows a more consistent composition of anions with a substantial proportion of chloride. The chloride-rich signature of the leachate samples provides critical evidence of chemical separation between leachate and G60L groundwater. Chloride is a conservative ion with regard to groundwater transport, such that it does not tend to interact with the solid phase once dissolved into solution. Therefore, groundwater impacted by GMF Pond leachate should contain a chloride proportion similar to the leachate, or at a proportion falling along a mixing line between the groundwater and leachate. Such a mixing signal is not observed, which paired with low chloride proportion in the groundwater (Attachment 5), is strong evidence that the groundwater at G60L is not influenced by the GMF Pond. This is consistent with the PCA results, which showed both the variability in the groundwater composition and the clear distinction between groundwater and leachate.

Notable distinctions on the Piper diagram are leachate samples from Q2 2020, Q1 2022, and Q1 2023, which correspond to the anomalous leachate samples in the PCA. These samples plot between the groundwater data and the main cluster of leachate data in the cation space. These instances are irregularly spaced through time and do not have a temporal trend in concentration nor overall major ion composition. This suggests changes are not related to seasonal changes at the site but rather indicates a more random control, such as operational influences on concentrations (*e.g.*, variable proportions of porewater and surface water passing into the leachate collection system or inconsistencies in sample collection).

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5.0 IDENTIFIED PROBABLE ALTERNATIVE SOURCE

Empirical field observations revealed a localized peat unit in boring B-55 and monitoring well P-60 (Attachment 4), both located immediately upgradient of G60L (Attachment 1). Peat-rich soils in connection with groundwater are known to produce water chemistries with lower pH and higher sulfate concentrations (Bourbonniere, 2009), such as those consistently observed at G60L (Table 1). The peat unit ranges in elevation from 593.2 to 600.6 feet (ft) mean sea level (msl), approximately the same elevation as the top of the filter pack (594.8 ft msl) and just above the elevation of the screened interval (587.4 to 592.4 ft msl) of G60L. The hydraulic conductivity of the filter pack is higher than the surrounding native material and would intercept flow from groundwater under the influence of the local peat. There is a downward vertical component to the hydraulic gradient in this area (Ramboll, 2021), which is consistent with a flow path from the peat unit downgradient horizontally and vertically towards the well screen of G60L.

Other monitoring wells near the local peat unit also exhibit higher sulfate concentrations than background and are stable over time (Attachment 5), supporting the conclusion that this region is influenced by an alternative source of sulfate, the local native peat, rather than the GMF Pond. This is particularly meaningful when considered contextually with boron and chloride concentrations, conservative tracers of CCR-related influence. Sulfate, chloride (Attachment 5), and boron (Ramboll 2024, LOE #2) are all elevated in the leachate while only sulfate is elevated in the groundwater. The low concentrations of boron and chloride in the groundwater at G60L are a strong indicator that sulfate concentrations originate from an alternative source unrelated to the GMF Pond.

While the local peat is the interpreted source of sulfate (and therefore TDS also), it is notable that other wells in the vicinity of G60L do not reflect the same low pH as G60L. In addition to the peat content of the aquifer solids, carbonate content also influences groundwater pH, with higher proportions of carbonate minerals calcite and dolomite present in the aquifer solids resulting in a higher, or more neutral, pH. Therefore, variation in groundwater pH is a function of variability in both peat and carbonate content in the aquifer solids. Carbonate mineralization is known to buffer against pH changes associated with peat. Solid phase mineralogy analysis including X-ray diffraction (XRD; Attachment 6) and sequential extraction (SEP; Attachment 7) data both show variable carbonate content across the site, indicating that some locations have higher pH buffering capacity than others. Aqueous alkalinity concentration, a contributor of aqueous phase pH buffering capacity, is lower at G60L than at surrounding wells (Attachment 5). These data in combination suggest the presence of peat immediately upgradient with the relatively low buffering capacity of the groundwater observed for monitoring well G60L have naturally resulted in a groundwater pH that is lower than the pH of the surrounding site groundwater.

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6.0 CONCLUSIONS

This technical review presents empirical evidence and analysis that demonstrates the GMF Pond is not the source of pH, sulfate, and TDS SSIs at compliance well G60L. The PCA identified a geochemical signature in the GMF Pond leachate that is different from groundwater and simultaneously demonstrates that geochemistry at G60L is far more similar to background/compliance wells than to the GMF Pond leachate. This analysis was supported by evaluation of the major ion distribution, which showed a sulfate-chloride leachate signature not evident in the groundwater. The absence of boron and chloride (both conservative tracers) from groundwater further demonstrates the GMF Pond is not impacting G60L. Soil boring logs revealed a localized pocket of native peat immediately upgradient of G60L. The combination of hydraulic gradients, aqueous and solid phase geochemistry, and empirical field observations at this location supports the conclusion that local peat is likely the source of the pH, sulfate, and TDS SSIs at G60L.

7.0 ABBREVIATIONS

Alk, bicarb	Alkalinity measured as bicarbonate, also shown as HCO_3^-
As	Arsenic
B	Boron
Ba	Barium
Ca	Calcium
CCR	Coal combustion residual
Cl	Chloride
CO_3^{2-}	Carbonate ion
DC	Duck Creek
F	Fluoride
Fe	Iron
ft	feet
GMF Pond	Gypsum Management Facility Pond
H+	Hydrogen ion, represents acidity in groundwater
HCO3	Bicarbonate alkalinity
K	Potassium
Mg	Magnesium
Mn	Manganese
Mo	Molybdenum
msl	mean sea level
Na	Sodium
SO4	Sulfate
SSI	Statistically significant increases
TDS	Total dissolved solids

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8.0 REFERENCES

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COMPLIANCE WELL
BACKGROUND WELL
PORE WATER WELL
CCR SOURCE WATER SAMPLE
MONITORING WELL
REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
PROPERTY BOUNDARY

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION

0 150 300 Feet

NOTES:
1. PARENTHESES INDICATES WELL NOT USED FOR CONTOURING
2.ELEVATION CONTOURS SHOWN IN FEET.
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

POTENTIOMETRIC SURFACE MAP JANUARY 9 AND 16, 2023

ALTERNATE SOURCE DEMONSTRATION GMF POND (UNIT ID: 203)

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

Attachment 1

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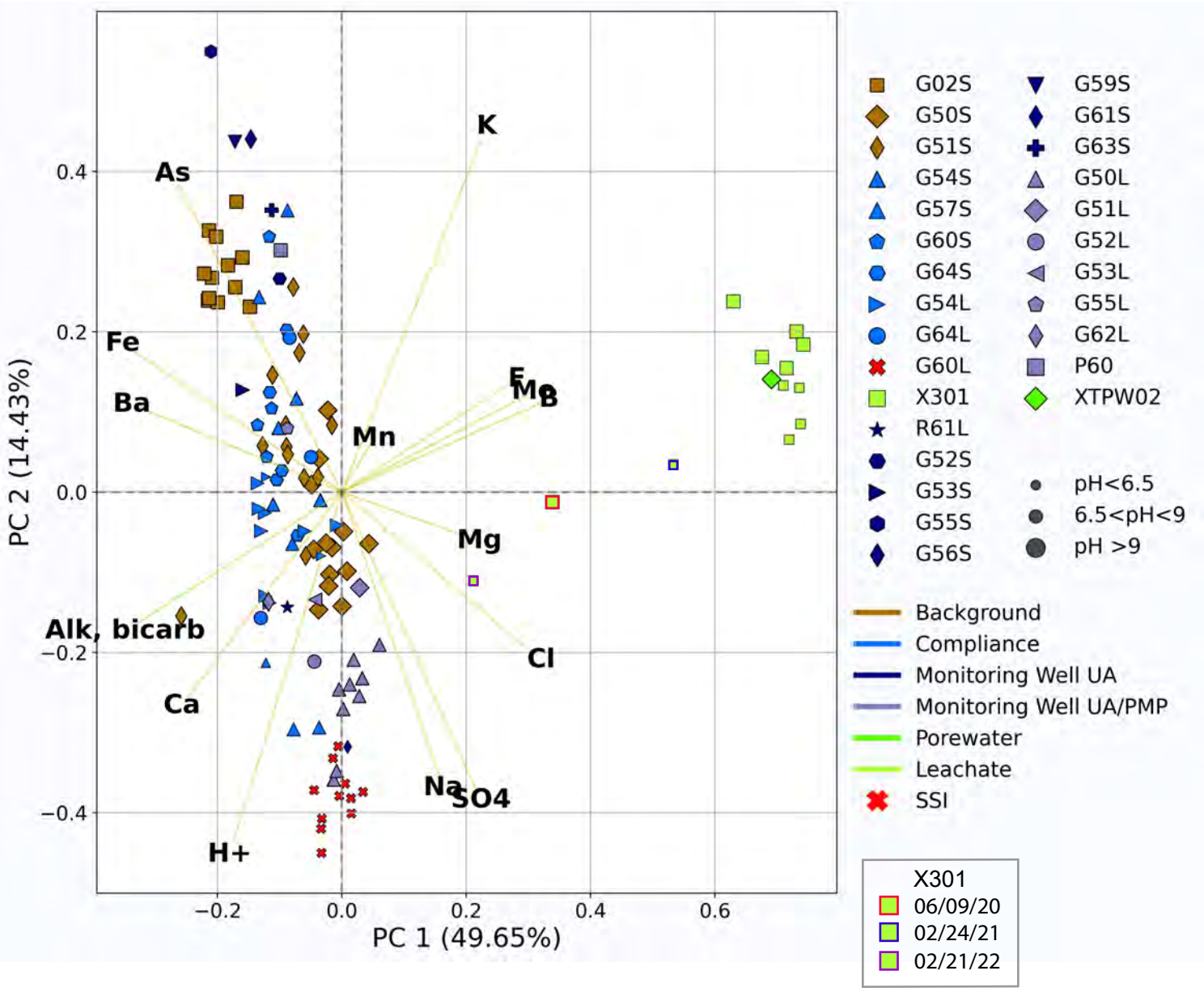
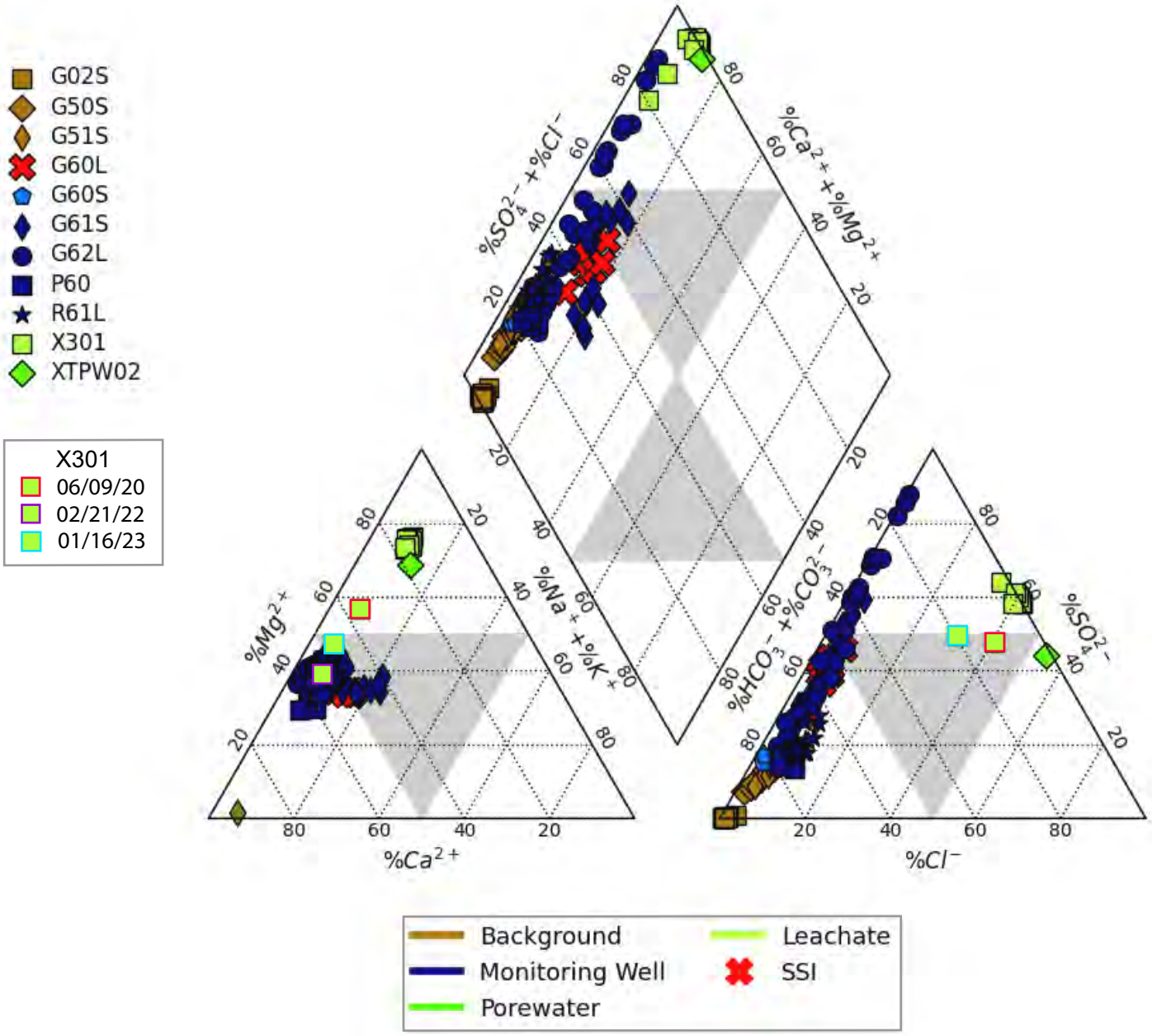
ENGINEERING SOLUTIONS, INC.

RAMBOLL



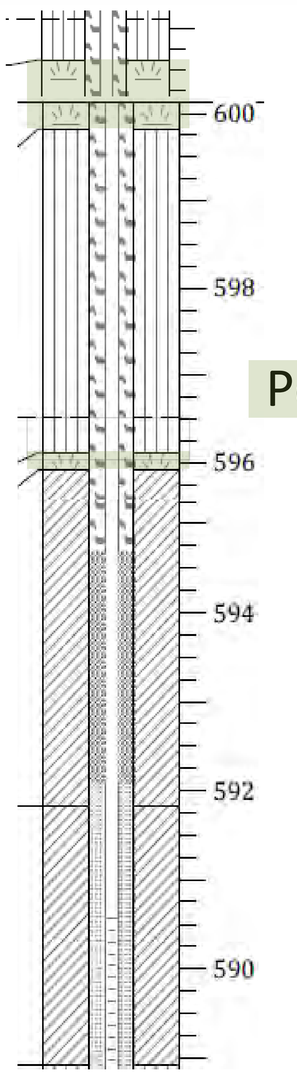
Principal Components Analysis (PCA) results for Duck Creek Gypsum Management Facility (GMF) Pond. Data is colored according to well classification and sized according to pH. See abbreviations list for complete analyte names.

LIFECYCLEGEO	Title: Duck Creek Principal Components Analysis Results		
	Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 2
	Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 02/19/2024	

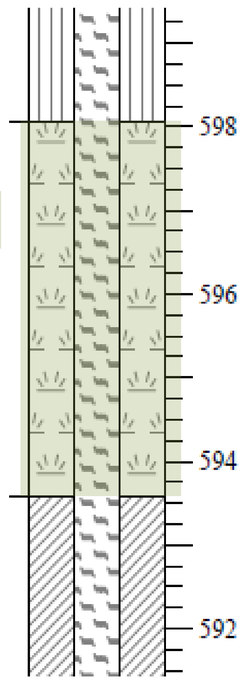


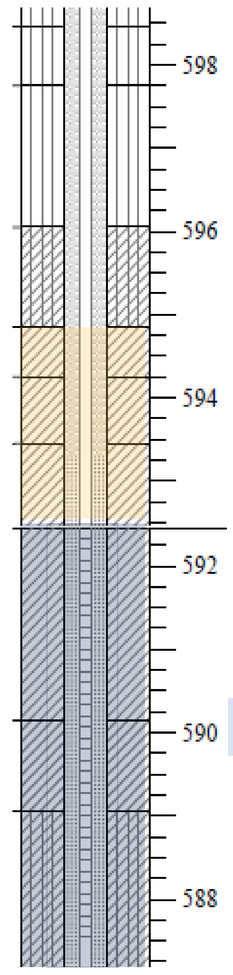
Piper diagram depicting major ion concentrations for background, leachate, and area around G60L. Total ion concentrations were used for all wells except P60, R61L, G61S, and G62L, which are a combination of dissolved and total ions. Dissolved ions used to improve analysis of local geochemistry near G60L.

LIFECYCLEGEO	Title: Piper Diagram		
	Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 3
	Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 02/19/2024	



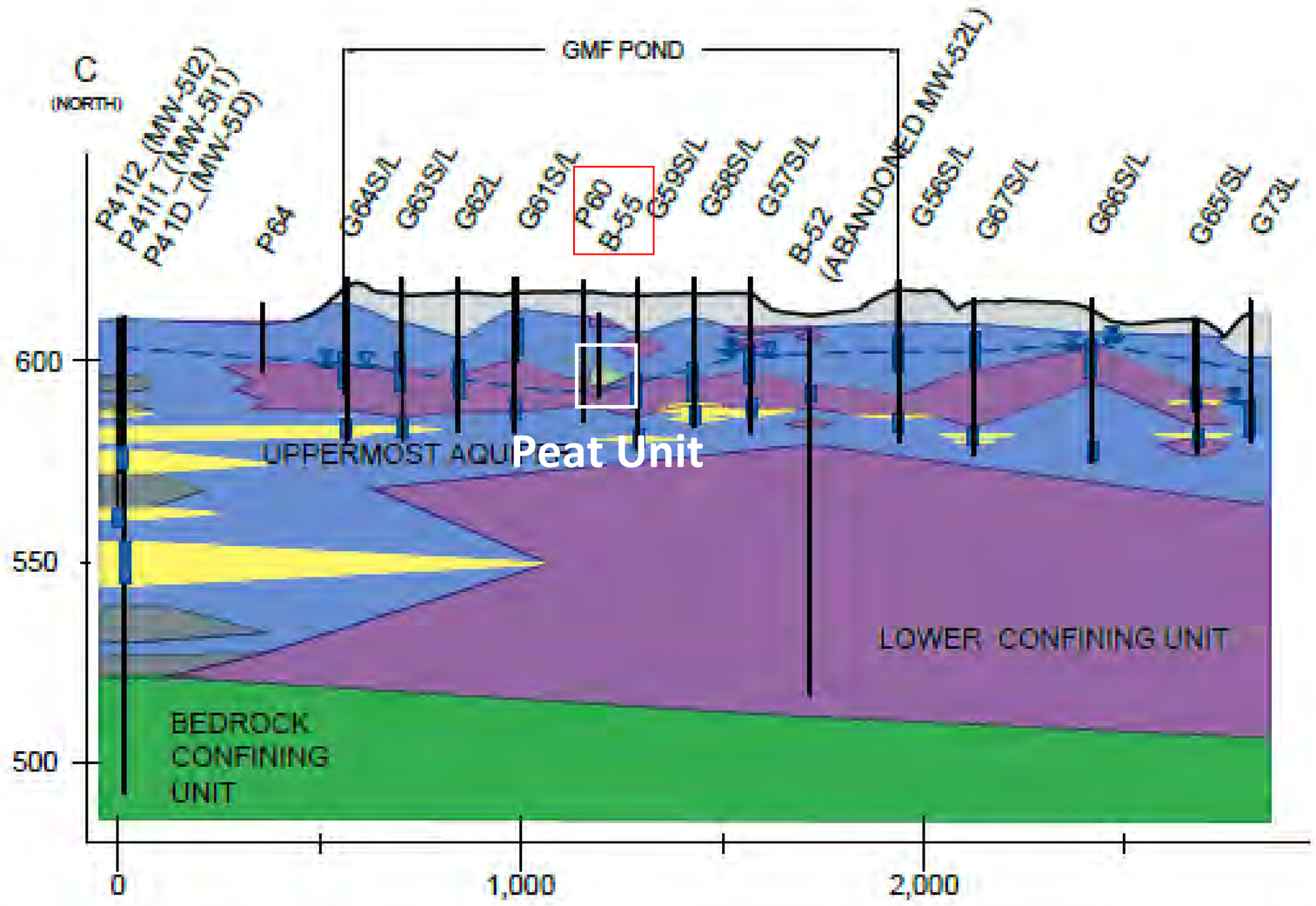
Peat





Filter Pack

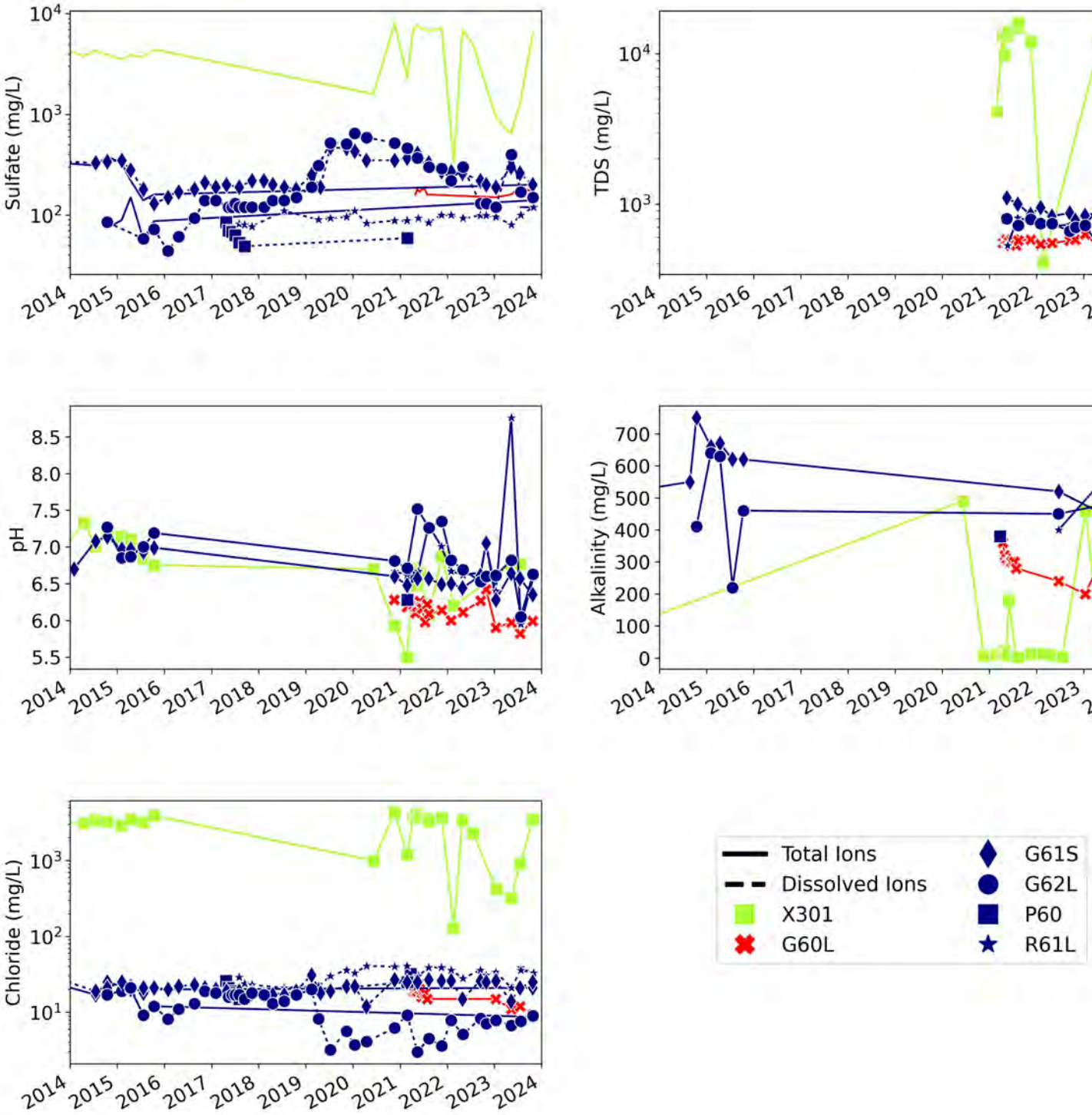
Well Screen



Top) Peat unit relative to filter pack and well screen of G60L. Groundwater contours from January 2023. Boring logs modifed from logs collected by Hanson. Groundwater map modified from Attachment 1. Bottom) Cross-section depicting local peat unit. Cross-section transect shown in top inset. All elevations in feet mean sea level. Cross-section modifed from Ramboll, 2021.

LIFECYCLEGEO

Title: Peat unit relative to G60L		
Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 4
Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 8/02/2023	



Time series depicting sulfate, TDS (total dissolved solids), pH, and alkalinity as bicarbonate concentrations for leachate, G60L, and wells adjacent to G60L. Concentrations for sulfate and TDS are plotted on a log scale.

LIFECYCLEGEO	Title: Geochemical Parameters Associated with Peat		
	Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 5
	Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 02/19/2024	

Attachment 6. X-ray diffraction results at Duck Creek Gypsum Management Pond.

Mineral/Compound	B-G52S (wt %)	B-G54L (wt %)	B-G57L (wt %)	B-G57S (wt %)	B-G62L (wt %)	B-G53S (wt %)	B-G02S (wt %)	B-G02L (wt %)
Quartz	48.4	57.6	51.2	59.9	61.7	51.1	61.1	49.2
Hornblende	3.7	1.4	2.4	-	-	-	-	-
Gypsum	-	-	-	-	-	-	-	-
Dolomite	**23.7**	**11.7**	**2.5**	**12.8**	**-**	**23.8**	**-**	**9.2**
Calcite	**6.7**	**0.8**	**0.1**	**0.3**	**-**	**4.1**	**-**	-
Albite	6.7	8.1	17.4	8.2	8.6	5.5	9.9	12.2
Chlorite	0.8	0.3	0.3	0.2	0.4	2.4	5.4	6.0
Muscovite	3.3	13.8	8.8	11.7	18.7	6.7	15.4	12.3
Rhodochrosite	3.2	-	-	-	-	-	0.4	-
Microcline	2.9	5.5	9.4	5.9	10.7	5.7	7.5	9.3
Pyrite	0.4	-	0.3	-	-	-	-	0.3
Halite	-	0.7	-	-	-	-	-	-
Montmorillonite	-	-	5.1	-	-	-	-	-
Goethite	-	-	1.1	-	-	-	-	-
Diaspore	-	-	0.3	-	-	-	-	-
Magnetite	-	-	0.4	-	-	-	-	0.4
Diopside	-	-	1.0	0.5	-	-	0.2	1.0
Actinolite	-	-	-	0.5	-	0.6	0.2	0.3

wt % - weight percent; bolded - carbonate minerals, buffers of groundwater pH

Attachment 7. Calcium sequential extraction (SEP) results at Duck Creek Gypsum Management Pond.

Calcium (mg/kg)		
Sample ID	[1] Step 2: Carbonate Phase	[2] Sum: Steps 1-7
B-G52S	18,000	90,000
B-G54L	2,300	23,000
B-G57L	730	11,000
B-G57S	3,600	39,000
B-G62L	600	3,200
B-G53S	13,000	80,000
B-G02S	210	4,900
B-G02L	2,400	24,000

[1] Step 2 represents the carbonate phase in the tested material.

[2] The sum of all seven SEP steps shows how much calcium was produced throughout testing.

Intended for
Illinois Power Resources Generating, LLC

Date
September 2, 2024

Project Number
1940103584-003

40 C.F.R. § 257.94(E)(2): ALTERNATIVE SOURCE DEMONSTRATION

DUCK CREEK POWER PLANT
GYPSUM MANAGEMENT FACILITY POND
CCR UNIT 203

RAMBOLL Bright ideas. Sustainable change.

CERTIFICATIONS

I, Eric J. Tlachac, a qualified professional engineer in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Eric J. Tlachac
Qualified Professional Engineer
062-063091
Illinois
Ramboll Americas Engineering Solutions, Inc.
Date: September 2, 2024

I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Brian G. Hennings
Professional Geologist
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TABLES (IN TEXT)

FIGURES (IN TEXT)

FIGURES (ATTACHED)

APPENDICES

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternative Source Demonstration
bgs	below ground surface
CCR	coal combustion residuals
CCR Rule	40 C.F.R. § 257 Subpart D
cm/s	centimeters per second
D14	Detection Monitoring Round 14
DCPP	Duck Creek Power Plant
EPRI	Electric Power Research Institute
GMF	Gypsum Management Facility
HDPE	high-density polyethylene
IEPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geological Survey
LOE(s)	line(s) of evidence
mg/L	milligrams per liter
NAVD88	North American Vertical Datum of 1988
NRT/OBG	Natural Resource Technology, an OBG Company
oz/yd^2	ounce per square yard
PMP	potential migration pathway
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	Statistically Significant Increase
TDS	total dissolved solids
UA	Uppermost Aquifer
UPL	Upper Prediction Limit
USGS	United States Geological Survey

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.94(e)(2) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of Statistically Significant Increases (SSI) over background for groundwater constituents listed in Appendix III of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSI(s), or that the SSI(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (Alternative Source Demonstration [ASD]).

This ASD has been prepared on behalf of Illinois Power Resources Generating, LLC by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to provide pertinent information pursuant to 40 C.F.R. § 257.94(e)(2) for the Duck Creek Power Plant (DCPP) Gypsum Management Facility (GMF) Pond located near Canton, Illinois.

The fourteenth semiannual detection monitoring samples (Detection Monitoring Round 14 [D14]) were collected from January 19 through February 1, 2024, and analytical data were received on March 6, 2024. In accordance with 40 C.F.R. § 257.93(h)(2), statistical analysis of the data to identify SSIs of 40 C.F.R. § 257 Subpart D (CCR Rule) Appendix III parameters over background concentrations was completed by June 4, 2024, within 90 days of receipt of the analytical data. The statistical determination identified the following SSIs at compliance monitoring wells:

- Calcium at wells G54L, G54S, G57S, G60S, and G64L
- Chloride at well G54L
- Sulfate at wells G54L and G60L
- Total dissolved solids (TDS) at wells G54L, G54S, G57S, G60L, G60S, and G64L
- pH at wells G54S and G60L

In accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2022), all wells with SSIs were resampled. Following evaluation of analytical data from the resample event, the following SSIs remained:

- Calcium at wells G54L, G54S, G57S, G60S, and G64L
- Chloride at well G54L
- Sulfate at wells G54L and G60L
- Total dissolved solids (TDS) at wells G54L, G54S, G57S, G60L, G60S, and G64L
- pH at well G60L

Pursuant to 40 C.F.R. § 257.94(e)(2), the lines of evidence (LOEs) presented in **Section 3** demonstrate that sources other than the GMF Pond were the cause of the SSIs listed above and the GMF Pond did not contribute to the SSIs. This ASD was completed by September 2, 2024, within 90 days of determination of the SSIs (June 4, 2024), as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The DCPP is located in Fulton County, in central Illinois, approximately 9 miles southeast of the town of Canton. Duck Creek Cooling Pond is located east of the decommissioned power plant and the GMF Pond with agricultural land surrounding the entire property. This CCR unit is composed of gypsum present within the GMF Pond at a thickness ranging from less than 1 to 22 feet. The thickest areas of gypsum are to the north and west within the GMF Pond and thin toward the south end of the GMF Pond.

2.2 Geology and Hydrogeology

The DCPP geologic and hydrogeologic setting summarized below is obtained from published sources, hydrogeologic investigation data, and boring data collected during site investigations conducted from 2005 to 2021 (Natural Resource Technology, an OBG Company [NRT/OBG], 2017; Ramboll, 2021).

Regionally, the DCPP is positioned on the glacial uplands above the Illinois River in the Ancient Illinois Floodplain of the Till Plains Section of the Central Lowland Province. The undisturbed unlithified materials consist of loess, diamictons, and lacustrine/alluvial deposits. The area is flat to gently rolling uplands that are dissected by deeply incised streams that are tributaries to major river systems.

Several large former surface coal mines are present in the vicinity. Strip mining in the region since the 1930s disrupted the natural stratigraphy down to the Springfield (No. 5) Coal unit. The strip-mining activity produced rough topography from soil piles and depressions, often ponded with water. Unlithified materials are present in the excavated strip mine spoils and have been mixed due to the surface mining activities. Mining operations in the area have ceased.

The uppermost bedrock stratum in the area is the Carbondale Formation of the Kewanee Group of the Pennsylvanian System. The Carbondale Formation consists primarily of shaley siltstone and silty shale and includes the Springfield (No. 5) Coal and other coal units. Bedrock occurs within approximately 50 feet of the ground surface in this area.

Quaternary deposits in the Canton area consist mainly of loess, diamictons, and lacustrine/alluvial deposits that were deposited during Illinoian and Wisconsinian glaciations. Four hydrostratigraphic units have been identified at the DCPP based on stratigraphic relationships and common hydrogeologic characteristics, and are summarized as follows (beginning at the ground surface):

- **Uppermost Aquifer (UA):** At the GMF Pond, this unit includes the Peoria/Roxanna Loess, the upper Radnor Till, and shallow sands. These units are hydraulically connected and underlain by a thick till sequence of the Radnor Till. The shallow sand zone is the primary migration pathway within these hydraulically connected formations. The shallow sands are laterally extensive across the site, vary in thickness from less than 1 to 18 feet, and are generally located at elevations of 570 to 590 feet[1]. The shallow sand is saturated. During construction of the GMF Pond, sand was completely removed everywhere it was encountered

[1] All elevations in this report are referenced to North American Vertical Datum of 1988 (NAVD88) unless otherwise noted.

(mainly the northeast corner and southwest corner of the pond), putting the base of the liner in contact with clay of the lower Radnor Till. Sand outside the GMF Pond footprint remains in place.

The Peoria/Roxanna Loess within the UA has been identified as a potential migration pathway (PMP). While the primary migration pathway (*i.e.*, the UA) is the shallow sand of the UA, impacts have the potential to migrate within groundwater in the overlying Peoria/Roxanna Loess. The PMP is saturated at depths of 3.5 to 11 feet below ground surface (bgs). While the PMP and UA are hydraulically connected, groundwater flow in the PMP is expected to be primarily vertical, with the majority of the horizontal migration expected to occur within the UA.

- **Lower Radnor Till/Lower Confining Unit:** Underlying the UA, the lower Radnor Till is approximately 42 to 58 feet thick. Previous hydrogeologic studies indicate discontinuous sand lenses observed within the till are not hydraulically connected to the UA.
- **Bedrock Confining Unit:** The bedrock encountered across the site consists of low permeability shaley siltstone, silty shale, and coal beds of the Carbondale Formation, and is estimated to have a thickness of approximately 300 to 400 feet.

Groundwater elevations in the UA near the GMF Pond are shown on **Figure 1**. Groundwater elevations were measured on January 17 and 18, 2024, prior to a combined sampling event at the DCPP for the three CCR units located there and for multiple monitoring programs required by both federal and state regulatory agencies. Groundwater elevations at the GMF Pond ranged from 617.80 to 589.35 feet.

2.3 GMF Pond Groundwater and Source Water Monitoring

The CCR Rule groundwater monitoring system for the GMF Pond is shown on **Figure 1**. Monitoring wells G02S, G50S, and G51S are used to monitor background groundwater quality for the GMF Pond. These wells are located north (G02S), northwest (G50S), and west (G51S) of the GMF Pond. The compliance monitoring wells screened in the UA are G54S, G57S, G60S, and G64S. The compliance monitoring wells screened in the PMP are G54L, G60L, and G64L.

GMF Pond source water samples are collected from the GMF Pond at location X301, a riser pipe from the ring drain beneath the GMF Pond that collects leachate and pond surface water. The most recent pond water sample was collected from X301 on February 1, 2024. Location XTPW02 is a temporary monitoring well installed in the gypsum within the GMF Pond for collection of porewater (**Figure 1**). XTPW02 was last sampled in June of 2021.

3. ALTERNATIVE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the GMF Pond (the CCR unit) caused the SSIs. LOEs supporting this ASD include the following:

1. The GMF Pond has a double geomembrane liner designed to prevent migration of CCR leachate to groundwater.
2. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits and are over two orders of magnitude lower than source water concentrations.
3. The major ion composition of GMF Pond groundwater is similar to background and distinct from GMF Pond source water and porewater.
4. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
5. Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L.

These LOEs are described and supported in greater detail below. LOEs 1, 2, and 3 address SSIs at all wells. LOE 4 addresses the calcium, chloride, and TDS SSIs at wells G54L, G54S, G57S, G60S, and G64L. LOE 5 addresses the sulfate, pH, and TDS exceedances at G60L.

3.1 LOE #1: The GMF Pond Has a Double Geomembrane Liner Designed to Prevent Migration of CCR Leachate to Groundwater

Construction of the GMF Pond was in accordance with Water Pollution Control Permit 2017-EO-62336 granted by the Illinois Environmental Protection Agency (IEPA). The GMF Pond liner system includes the following components:

- 60-mil high-density polyethylene (HDPE) geomembrane liner
- Minimum 12-inch soil cushion layer (up to 24 inches thick in select areas on the side slope)
- 4 ounce per square yard (oz/yd^2) non-woven geotextile filter fabric
- 12-inch highly permeable granular drainage sand layer
- 10 oz/yd^2 non-woven geotextile filter fabric
- 60-mil HDPE geomembrane liner
- Geosynthetic clay liner with a manufacturer's published hydraulic conductivity estimate of 5×10^{-9} centimeters per second (cm/s)
- 36-inch compacted clay layer with a maximum hydraulic conductivity of 9×10^{-7} cm/s based upon laboratory testing of samples collected from the site

The IEPA-approved GMF Pond double geomembrane liner system far exceeds the design criteria for a composite liner for new CCR landfills established by 40 C.F.R. § 257.70(b). The double geomembrane liner creates a barrier to groundwater flow through the CCR managed in the GMF Pond, suggesting that the GMF Pond is not the source of the SSIs.

3.2 LOE #2: Boron Concentrations in Compliance Groundwater Monitoring Wells Do Not Exceed Background Limits

Boron is a potential indicator of CCR impacts to groundwater due to its leachability from CCR, low occurrence as an anthropogenic contaminant, and mobility in groundwater (Electric Power Research Institute [EPRI], 2012). If boron concentrations are present above background groundwater concentrations in CCR source water, then groundwater impacted by CCR would be expected to contain boron concentrations elevated above the background Upper Prediction Limit (UPL). The UPL is an upper bound on background concentrations calculated for comparing compliance well results to background. The source water sample from the GMF Pond (X301) has a boron concentration of 11.0 milligrams per Liter (mg/L), over two orders of magnitude greater than the UPL of 0.059 mg/L. Boron concentrations detected in compliance monitoring wells with SSIs, along with source water sample X301, are summarized in **Table A** below. All compliance wells with SSIs had concentrations of boron at or below the UPL, indicating that these wells have not been affected by CCR. Therefore, the GMF Pond is not the source of the SSIs.

Table A. Summary of Boron Concentrations in Compliance Wells and Source Water

	G54S	G54L	G57S	G60L	G60S	G64S	G64L	X301
Boron (mg/L) (UPL=0.059 mg/L)	0.029	0.018	<0.007	0.046	0.034	0.023	<0.01	11.0

3.3 LOE #3: The Major Ion Composition of GMF Pond Groundwater is Similar to Background and Distinct From GMF Pond Source Water

Piper diagrams graphically represent the major ion composition of aqueous solutions. A Piper diagram displays the position of water samples relative to their major cation and anion content on the two lower triangular portions of the diagram, providing the information which, when combined on the central, diamond-shaped portion of the diagram, identifies the compositional categories or groupings (hydrochemical facies). **Figure A** (on the following page) is a Piper diagram that displays the ionic composition of groundwater samples from the background and compliance wells associated with the GMF Pond, as well as source water and porewater. Source water samples were collected from the ring drain (X301) underlying the GMF Pond during the D14 sampling event. Ionic composition of a porewater sample collected in June of 2021 from a temporary monitoring well installed in the gypsum within the pond (XTPW02) is also provided for reference. Wells with calcium, chloride, and/or TDS SSIs at wells G54L, G54S, G57S, G60S, G60L, and G64L are circled in red. The major ion composition of G60L is discussed in **Appendix A.**

It is evident from the Piper diagram that the background (brown symbols) and compliance (blue symbols) wells are in the calcium-bicarbonate hydrochemical facies, and the source water and porewater (light and medium green symbols, respectively) are in the calcium-sulfate hydrochemical facies. The ionic composition of groundwater from the background and compliance wells demonstrate strong similarity. Additionally, the ionic compositions of groundwater from the background and compliance wells and source water and porewater are dissimilar. Together, the similarity of background and compliance groundwater ionic composition and the differences between groundwater, source water, and porewater indicate that the GMF Pond is not the source of CCR constituents detected in GMF Pond groundwater.

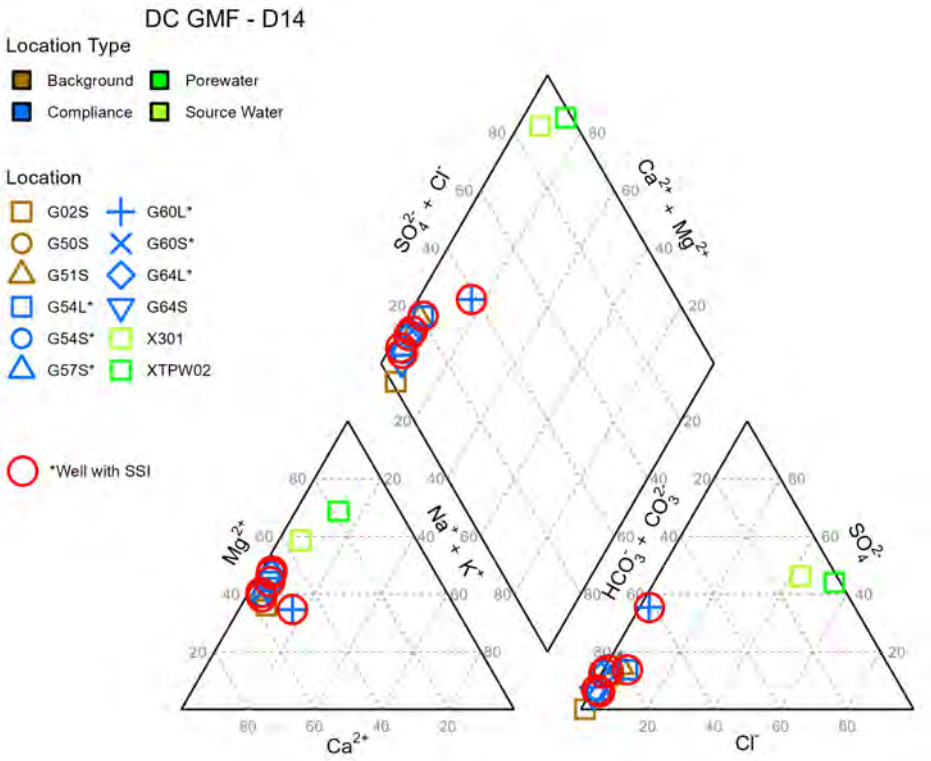

Figure A. Piper Diagram Showing Ionic Composition of Groundwater, Source Water, and Porewater Samples Associated with the GMF Pond (brown = background wells, blue = compliance wells, green = source water or porewater). Wells with calcium, chloride, and/or TDS exceedances at wells G54L, G54S, G57S, G60S, G60L, and G64L are circled in red.

3.4 LOE #4: Proximity of the GMF Pond to Historical Mining Activity and Related Groundwater Quality Impacts

The area surrounding the GMF Pond consists primarily of unmined coal and reclaimed surface mine land. The extent of nearby surface mines is shown in the attached **Figure 2**. The coal in this area has a sulfur content greater than 2.5 pounds of sulfur per million British Thermal Units, the highest sulfur classification used by Illinois State Geological Survey (ISGS, 1997).

The coal in the area varies in depth from 0 to 50 feet bgs. The CCR Rule groundwater monitoring wells for the GMF Pond are screened between 23 and 48 feet bgs. The compliance monitoring wells are located approximately 2,000 to 4,000 feet south-southeast (downgradient) of the nearby surface mines (**Figure 2**). Potentiometric data indicate that groundwater generally flows to the east and south towards the GMF Pond, Cooling Pond, and drainage features that connect to the Cooling Pond located east and south of the GMF Pond, as shown on the attached **Figure 3**.

A study of groundwater quality near surface coal mines, performed by the United States Geological Survey (USGS, 2006), provides data on the effects of mines on groundwater quality. The study evaluated regional differences in major ionic composition of groundwater in unmined and mined areas using Piper diagrams (**Figure B** on the following page). Groundwater samples collected from wells downgradient of the reclaimed mine areas in the study ranged from primarily calcium-

magnesium carbonate-bicarbonate type (calcium-bicarbonate hydrochemical facies) to a lesser amount of calcium-magnesium sulfate type (calcium sulfate hydrochemical facies). The calcium-bicarbonate groundwater documented in the vicinity of reclaimed surface coal mines is similar to the ionic composition of groundwater samples collected from both background and compliance groundwater monitoring wells at the GMF Pond (see **Figure A**).

State of Illinois groundwater quality regulations (Title 35 of the Illinois Administrative Code [35 I.A.C.] § 620 - Groundwater Quality) acknowledge that water quality is adversely affected in areas where coal mining activity has occurred. The groundwater quality standards for TDS, chloride, iron, manganese, sulfate, and pH within previously mined areas are the existing concentrations of these constituents in groundwater (35 I.A.C. § 620.440(c)).

The proximity of the GMF Pond to historic coal mining activity and similarities in the ionic composition of groundwater in areas of reclaimed surface coal mines and in the GMF Pond groundwater samples indicates historic mining activity as an alternative source of the SSIs at the GMF Pond.

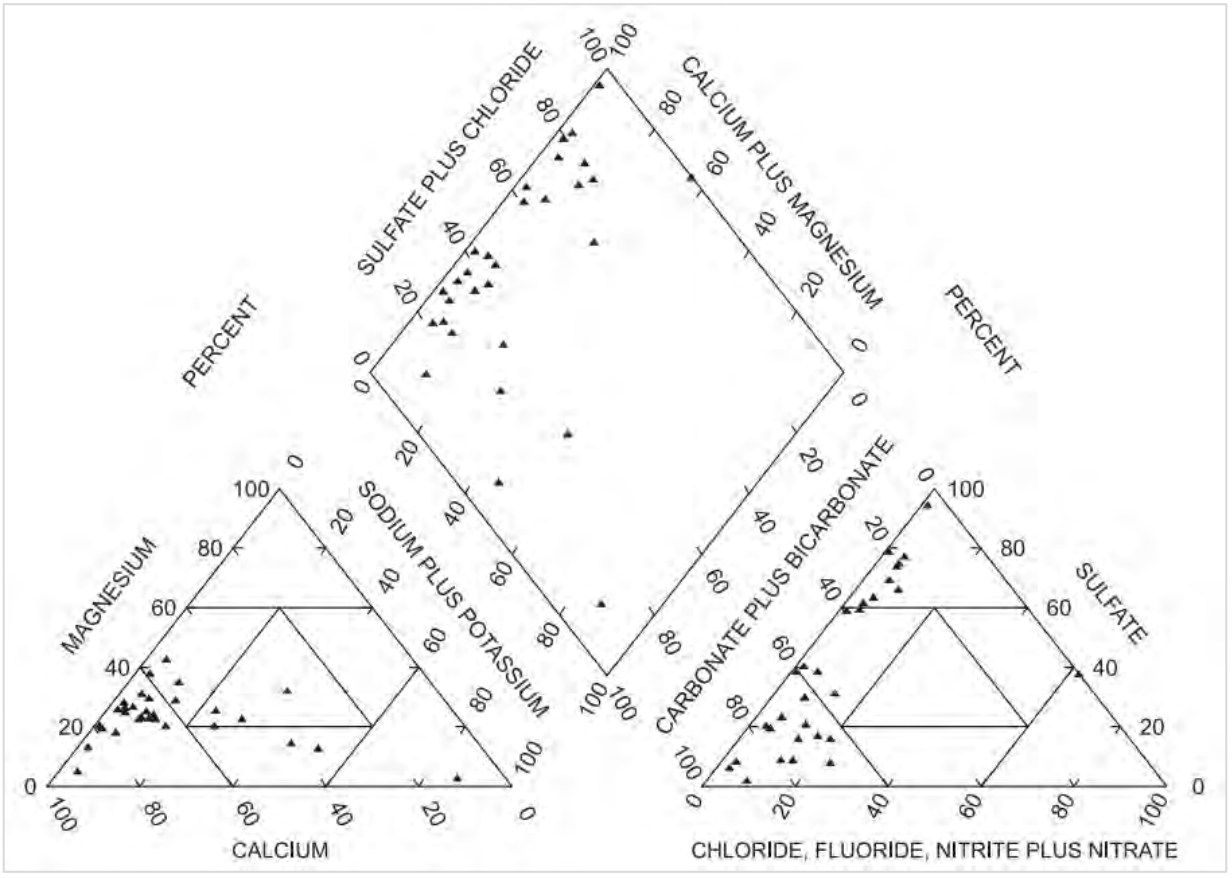

Figure B. Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

3.5 LOE #5: Geochemical Analysis and Empirical Observations At and Near G60L Suggest That a Localized Pocket of Native Peat is the Source of SSIs at G60L

Multivariate statistical analysis of the groundwater and GMF Pond source water and porewater data, review of ionic composition of both, and literature review were performed by Life Cycle Geo, LLC to support the conclusion that the pH, sulfate, and TDS exceedances at G60L are due to the influence of a localized, native peat deposit located upgradient of the well. Details of the analysis are included as **Appendix A**. The following conclusions were made based on the results of the evaluation:

- Principal component analysis shows that the groundwater signature at G60L is similar to background and compliance well groundwater signatures and distinct from the source water and porewater signatures.
- The major ion composition of groundwater at G60L is inconsistent with influence from source water and pore water due to a low proportion of chloride, an indicator of CCR impacts in groundwater, and is similar to the major ion composition of nearby wells.
- A localized native peat deposit located upgradient of G60L is the likely source of the pH, sulfate, and TDS SSIs based on literature review of peat influence on groundwater conditions, observed hydraulic gradients, evaluation of aqueous and solid phase geochemistry at G60L and other nearby wells downgradient of the peat deposit, and the absence of CCR indicators boron and chloride.

4. CONCLUSIONS

Based on the five LOEs below and described in the previous section, it has been demonstrated that a source other than the GMF Pond is the source of SSIs of calcium at G54L, G54S, G57S, G60S, and G64L; chloride at G54L; sulfate at G54L and G60L; TDS at G54L, G54S, G57S, G60L, G60S, and G64L; and pH at G60L, and that the GMF Pond did not contribute to the SSIs

1. The GMF Pond has a double geomembrane liner designed to prevent migration of CCR leachate to groundwater.
2. Boron concentrations in compliance groundwater monitoring wells do not exceed background limits and are over two orders of magnitude lower than source water concentrations.
3. The major ion composition of GMF Pond groundwater is similar to background and distinct from GMF Pond source water and porewater.
4. Proximity of the GMF Pond to historical mining activity and related groundwater quality impacts.
5. Geochemical analysis and empirical observations at and near G60L suggest that a localized pocket of native peat is the source of SSIs at G60L.

This information serves as the written ASD prepared in accordance with 40 C.F.R. § 257.94(e)(2) that the SSIs observed during the Detection Monitoring Program were not due to the GMF Pond. Therefore, an Assessment Monitoring Program is not required and the GMF Pond will remain in Detection Monitoring.

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FIGURES

COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
PORE WATER WELL
CCR SOURCE WATER SAMPLE
MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION
REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
PROPERTY BOUNDARY

0 150 300 Feet

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATIONS IN BRACKETS WERE OBTAINED OUTSIDE OF THE 24-HOUR PERIOD FROM INITIATION OF DEPTH TO GROUNDWATER MEASUREMENTS BUT WITHIN THE SAME SAMPLING EVENT.
3. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988

SAMPLING LOCATIONS AND POTENTIOMETRIC SURFACE MAP JANUARY 17 AND 18, 2024

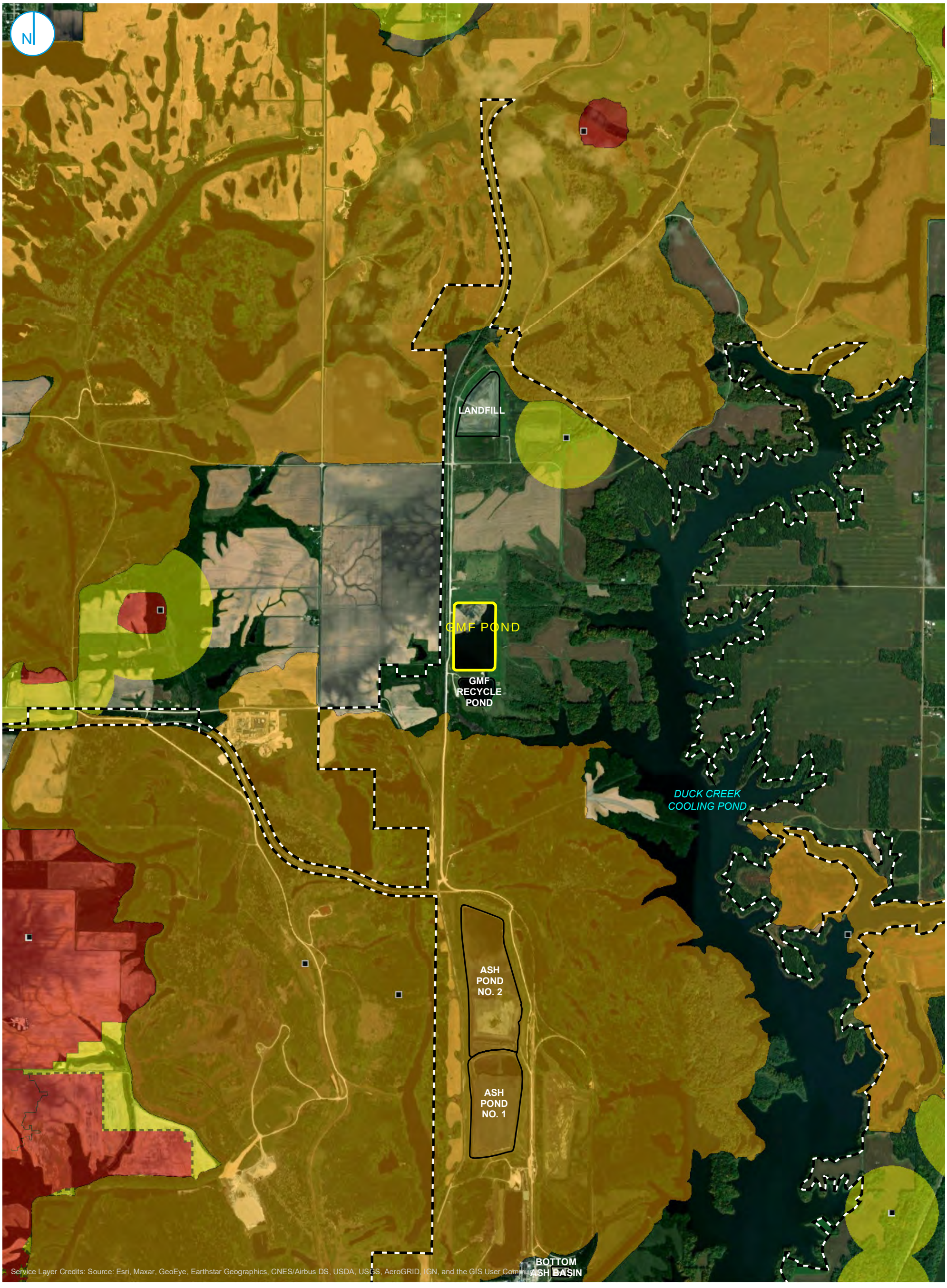
ALTERNATIVE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



- COAL MINE SHAFT
- SURFACE COAL MINE
- UNDERGROUND COAL MINE UNDERGROUND
- MINE BUFFER REGION
- REGULATED UNIT (GMF POND)
- SITE FEATURE
- PROPERTY BOUNDARY

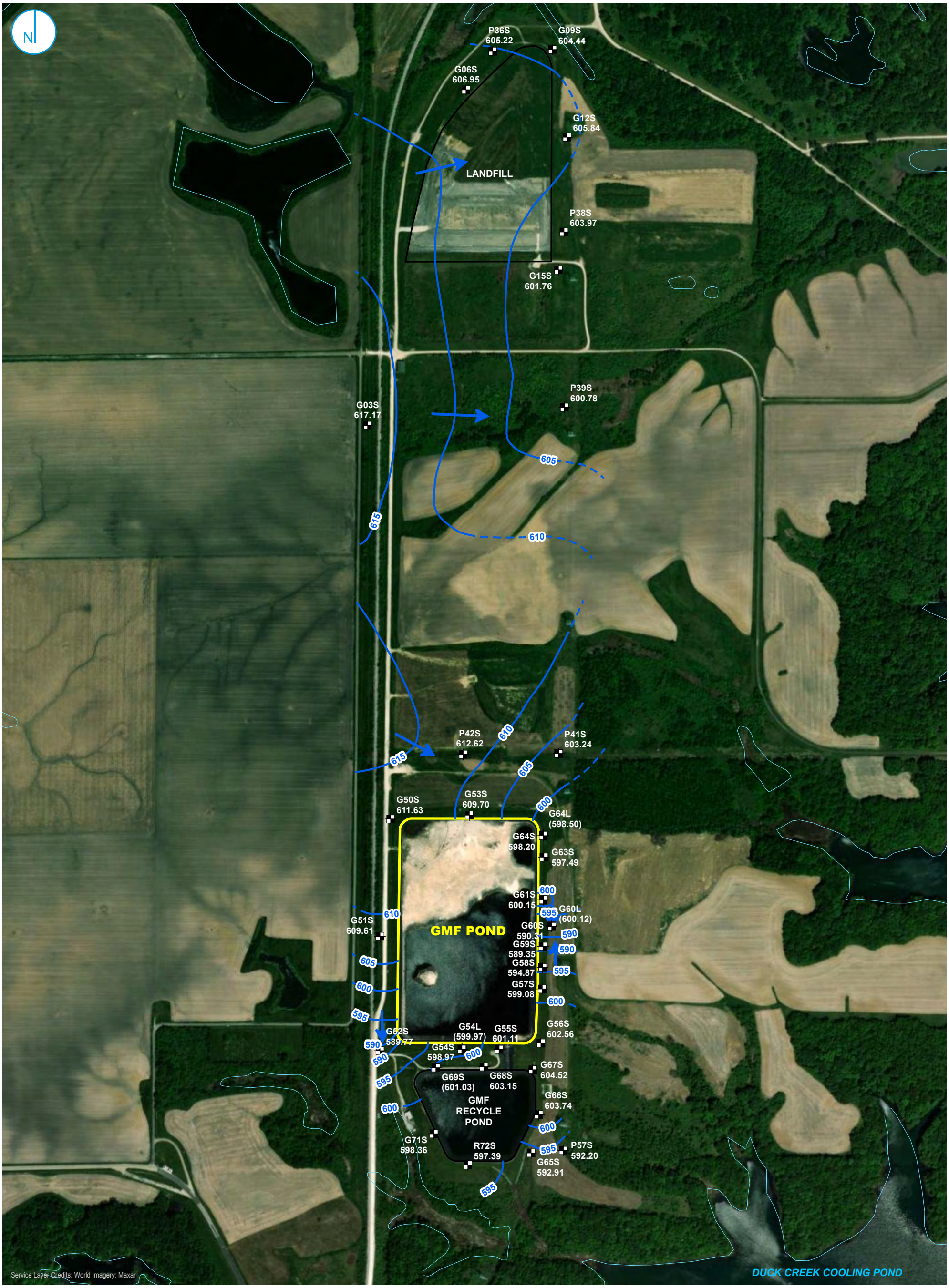
0 1,000 2,000 Feet

COAL MINE COVERAGE AREA

FIGURE 2

ALTERNATIVE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



MONITORING WELL
GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION

REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
SURFACE WATER (USGS, 2019)

0 300 600 Feet

NOTES
ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING

POTENTIOMETRIC SURFACE MAP JANUARY 17 AND 18, 2024

ALTERNATE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

APPENDIX A
TECHNICAL MEMORANDUM: DRAFT GEOCHEMICAL ANALYSIS OF DUCK CREEK GROUNDWATER IN SUPPORT OF AN ALTERNATIVE SOURCE DEMONSTRATION (ASD)

TECHNICAL MEMORANDUM

DATE August 28, 2024 **Reference No.** 23RAM01-1

TO Brian G. Hennings - Ramboll
Eric Tlachac - Ramboll

CC Stu Cravens - Vistra

FROM Shannon Zahuranec, Allie Wyman, and Tom Meuzelaar **EMAIL:** shannon@lifecyclegeo.com

GEOCHEMICAL ANALYSIS OF DUCK CREEK GMF POND GROUNDWATER IN SUPPORT OF AN ALTERNATIVE SOURCE DEMONSTRATION (ASD)

1.0 EXECUTIVE SUMMARY

Life Cycle Geo, LLC. (LCG) has reviewed geochemical conditions at monitoring well G60L to support an alternative source demonstration (ASD) by Ramboll Americas Engineering Solutions, Inc. (Ramboll) for Illinois Power Resources Generating, LLC. The G60L monitoring well monitors conditions in the Loess unit (identified as a potential migration pathway to the uppermost aquifer) downgradient of the Duck Creek Power Plant (DC) Gypsum Management Facility Pond (GMF Pond). Pursuant to 40 C.F.R. § 257 Subpart D (CCR Rule), monitoring well G60L exhibits statistically significant increases (SSIs) of parameters relative to background concentrations after the D14 monitoring event completed January 19 through February 1, 2024, including pH, sulfate, and total dissolved solids (TDS). This technical review considered all available groundwater and solid-phase chemical analysis and empirical field observations and utilized multivariate statistical analysis to conclude the SSIs at G60L are due to an alternative source and are unrelated to the GMF Pond. Information pertaining to flow conditions, lithology, and solid-phase geochemistry are utilized to conclude that the likely source of low pH and elevated sulfate and TDS observed at G60L is a localized pocket of native peat identified in boring logs immediately upgradient of G60L.

2.0 GROUNDWATER CONDITIONS

Monitoring well G60L is located on the eastern side and downgradient of the GMF Pond (Attachment 1). From 2021 through April 2024 (the period of groundwater monitoring at this well), pH at G60L is consistently lower than background groundwater pH, and sulfate and TDS are consistently higher (Table 1). Sulfate is found to be the major component of the measured TDS at G60L, representing approximately 30% of the total TDS concentration, and is the primary driver of the TDS SSI. As such, this analysis focuses on the source of the pH and sulfate SSIs, with sulfate used as proxy for TDS.

Table 1: Concentration Ranges for Select Constituents in DC GMF Pond Groundwater.

	pH	Sulfate (mg/L)	TDS (mg/L)
G60L	5.56-6.42	150-250	500-660
Background	5.84-7.26	<0.18-60	290-610

Notes: Concentration ranges represent the minimum and maximum concentration measured between 2021 and April 2024.

3.0 MULTIVARIATE PRINCIPAL COMPONENTS ANALYSIS

3.1 APPROACH

Groundwater chemistry data are by nature multivariate datasets given the high number of parameters observed per sampling location and date. With such a large number of variables, advanced statistical analysis of multivariate groundwater data can provide important insights into spatial and chemical relationships influencing constituent distribution and compliance in groundwater. The multivariate technique Principal Components Analysis (PCA) is used to interrogate the groundwater chemistry around the GMF Pond.

PCA is a multivariate technique that reduces dataset dimensionality to its principal, independent components thereby revealing the inner structure of the dataset. Multivariate techniques such as PCA are valuable because they identify variables that are highly dependent on each other but do not inherently provide insights into water origin, type, or evolution. As an example, calcium, magnesium, and hardness are typically highly correlated in groundwater datasets, but this relationship is known and does not provide additional insight towards the identification of water types and geochemical processes that describe water quality changes. Reducing multivariate data dimensionality reduces redundant information, revealing inner structures in the data that might otherwise be obscured by these dependencies. These structures might include revealing groups of related variables, changing chemical evolution through time, or spatial locations with similar chemical signatures.

PCA results are most easily viewed on biplots, which depict the sample population plotted on two axes, each representing a principal component. The principal components are created from a linear combination of the original variables in the dataset and variance in the data. For natural compositional datasets, the population variance can often be expressed as six or seven principal components (in some cases less and in others, more), each representing decreasing amounts of variance in the data while remaining uncorrelated to previous principal components. Typically, the first few principal components represent significant dataset variance and include a larger number of variables. The principal components are visualized using biplots with the variables expressed as vectors; the location of groups of samples relative to component vectors provides insight into geochemical relationships among groups of variables and samples.

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3.2 DATA PREPARATION

Data preparation is an initial step in multivariate analysis. Raw chemical data requires preparation prior to analysis because the data often contains values in two forms unsuitable for advanced analytics: 1) measurements reported below a method detection limit (MDL), referred to as censored data, and 2) missing values. For this work any sample or analyte with a high percentage (≥40%) of missing and/or censored data was assessed for meaningful statistical variance. If variance was determined to be low, the sample or analyte was removed, otherwise data was included in the analysis. Any remaining censored data was converted to half the MDL. Remaining missing values were imputed, a method of assigning an estimated value that accounts for the entire distribution of the material composition (Sanford et al., 1993) and takes into consideration the values associated with samples of similar composition. Imputation was done with a nearest neighbor algorithm and resulting values were checked against the overall data distribution for both the analyte and sample to ensure representative results. The resulting dataset includes both compliance wells and other monitoring wells, incorporates data from multiple lithologic units, and spans sampling events from 2014 through 2024. The dataset contains 15 measured analytes, including the hydrogen ion (H+), which represents acidity in groundwater and is proportional to pH. The final dataset contained 1,971 values, 143 of which were inputted. This data represents the most recent data measured at the GMF Pond and the most complete set of regularly measured and detectable analytes.

PCA also requires transformation of the dataset to address the numeric closure problem inherent within chemical compositional datasets (Aitchison, 1986). Numeric closure can often occur in water quality data since water quality concentrations are not completely independent. To address this issue, all data was converted to the same units and the centered-log ratio transformation (CLR; Aitchison 1986; Egozcue et al. 2011) was applied to the prepared dataset. In practice, closure only significantly affects elements present in large concentrations (e.g., major ions in typical water quality samples), but for consistency the entire dataset (i.e., including trace metals) was CLR-transformed.

All data preparation was conducted using python programming language. Only total (i.e., unfiltered) concentrations of major ions and metals were used in this analysis as those data are both relatively complete and consistent across the wells around the GMF Pond and are the parameters of interest for regulatory purposes.

3.3 FINDINGS

A biplot for principal components 1 and 2 (PC1 and PC2) is provided in Attachment 2. PC1 explains approximately 44.4% of the statistical variance in the entire water quality dataset, and imposes the dominant compositional structure observed in the biplot. PC2 explains approximately 18.5% of the variability in the dataset.

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The compositional vectors on the biplot and their position/spacing reveal the following key insights into groundwater geochemistry at the GMF Pond:

1) Groundwater samples plot along a linear trend from the upper center toward the lower left quadrant, with significant overlap between background, compliance, and monitoring wells. This suggests overall groundwater chemistry at compliance wells and monitoring wells is compositionally similar to background conditions.
2) Data from G60L plots near the center, generally in between acidity (H+), calcium (Ca), sodium (Na), and sulfate (SO4) vectors. This positioning indicates a weak association with these constituents. Data from G60L also plots comingled with background, compliance, and monitoring wells, indicating G60L is compositionally similar to these locations.
3) The porewater and source water samples plot in the lower right quadrant of the biplot, near the boron (B) vector. These samples plot far from the groundwater samples and at a right angle to the dominant groundwater trend, indicating the chemistry of the porewater and source water is distinct and separate from the chemistry of the groundwater. There are four source water samples that plot away from the main body of source water data. These four samples are (1) chemically distinct from the groundwater samples, (2) irregularly spaced in time, and (3) likely represent anomalous conditions unique to the GMF Pond. These samples are discussed further in Section 4.2.

4.0 MAJOR ION DISTRIBUTION

4.1 APPROACH

Piper diagrams are a useful way to classify water samples based on major ion chemistry. The diagrams include separate ternary anion and cation proportion plots and a central diamond plot for classifying combined cation/anion predominance for overall classification. Piper diagrams account for major ion proportionality, but not for actual concentrations nor trace element chemistry, an important contrast and complement to PCA.

The Piper diagram for the GMF Pond is provided in Attachment 3. Given the large number of sampling locations and sampling instances, the data plotted here is limited to source water, porewater, background, and groundwater wells in the immediate vicinity of G60L over the same time period as the samples included in the PCA. This provides the clearest depiction of both the site-wide data and localized geochemistry around G60L and allows for ease of comparison to the PCA. To provide a more robust evaluation of the local geochemistry in the area of the GMF Pond and to increase the density of datapoints at wells near G60L, the groundwater wells immediately adjacent to G60L are presented as a combination of dissolved and total major ions, rather than exclusively total ions. The difference between total and dissolved major ions was evaluated qualitatively through comparison of values when both total and dissolved were measured. No

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major differences were observed, therefore when total phase data was not available, dissolved data was used in place.

4.2 FINDINGS

The primary finding from the Piper diagram is that groundwater at G60L exhibits a major ion composition distinct from the GMF Pond source water and porewater. The groundwater samples near G60L all have consistent cation proportions with almost equal distributions of Ca and magnesium (Mg), consistent with other compliance groundwater wells around the GMF Pond (Ramboll 2024). The source water and porewater samples differ in that they primarily show a more Mg-dominant signature. Similarly, the anion proportions of groundwater are distinct from source water and porewater, particularly with respect to chloride (Cl). The groundwater samples all show low Cl proportion but exhibit a wide range of SO4 proportion. In contrast, the source water and porewater samples show a more consistent composition of anions with a substantial proportion of Cl. The Cl-rich signature of the source water and porewater samples provides critical evidence of chemical separation between source water, porewater, and G60L groundwater. Cl is a conservative ion with regard to groundwater transport, such that it does not tend to interact with the solid phase once dissolved into solution. Therefore, groundwater impacted by GMF Pond source water or porewater should contain a Cl proportion similar to the source water or porewater, or at a proportion falling along a mixing line between the groundwater and source water or porewater. Such a mixing signal is not observed, which paired with low Cl proportion in the groundwater (Attachment 5), is strong evidence that the groundwater at G60L is not influenced by the GMF Pond. This is consistent with the PCA results, which showed both the variability in the groundwater composition and the clear distinction between groundwater, source water, and porewater.

Notable distinctions on the Piper diagram are anomalous source water samples, which correspond to the anomalous source water samples in the PCA. These samples plot between the groundwater data and the main cluster of source water and porewater data in the cation space. These instances are irregularly spaced through time and do not have a temporal trend in concentration nor overall major ion composition. This suggests changes are not related to seasonal changes at the site but rather indicates a more random control, such as operational influences on concentrations (*e.g.*, variable proportions of porewater and surface water passing into the source water collection system or inconsistencies in sample collection).

5.0 IDENTIFIED PROBABLE ALTERNATIVE SOURCE

Empirical field observations revealed a localized peat unit in boring B-55 and monitoring well P-60 (Attachment 4), both located immediately upgradient of G60L (Attachment 1). Peat-rich soils in connection with groundwater are known to produce water chemistries with lower pH and higher

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sulfate concentrations (Bourbonniere, 2009), such as those consistently observed at G60L (Table 1). The peat unit ranges in elevation from 593.2 to 600.6 feet (ft) North American Vertical Datum of 1988 (NAVD88), approximately the same elevation as the top of the filter pack (594.8 ft NAVD88) and just above the elevation of the screened interval (587.4 to 592.4 ft NAVD88) of G60L. The hydraulic conductivity of the filter pack is higher than the surrounding native material and would intercept flow from groundwater under the influence of the local peat. There is a downward vertical component to the hydraulic gradient in this area (Ramboll, 2021), which is consistent with a flow path from the peat unit downgradient horizontally and vertically towards the well screen of G60L.

Other monitoring wells near the local peat unit also exhibit higher sulfate concentrations and periodically lower pH than background (Attachment 5), supporting the conclusion that this region is influenced by an alternative source of sulfate and a minor amount of acidity (resulting in lower pH), ***the local native peat***, rather than the GMF Pond. This is particularly meaningful when considered contextually with B and Cl concentrations, conservative tracers of CCR-related influence. Concentrations of SO4, Cl (Attachment 5), and B (Ramboll 2024, LOE #2) are all elevated in the source water and porewater while only SO4 is elevated in the groundwater. The low concentrations of B and Cl in the groundwater at G60L are a strong indicator that SO4 concentrations originate from an alternative source unrelated to the GMF Pond.

While the local peat is the interpreted source of SO4 (and therefore TDS also), it is notable that other wells in the vicinity of G60L do not consistently reflect as low of a pH as G60L. In addition to the peat content of the aquifer solids, carbonate content also influences groundwater pH, with higher proportions of carbonate minerals calcite and dolomite present in the aquifer solids resulting in a higher, or more neutral, pH. Therefore, variation in groundwater pH is a function of variability in both peat and carbonate content in the aquifer solids. Carbonate mineralization is known to buffer against pH changes associated with peat. Solid phase mineralogy analysis including X-ray diffraction (XRD; Attachment 6) and sequential extraction (SEP; Attachment 7) data both show variable carbonate content across the site, indicating that some locations have higher pH buffering capacity than others. Aqueous alkalinity concentration, a contributor of aqueous phase pH buffering capacity, is lower at G60L than at surrounding wells (Attachment 5). These data in combination suggest the presence of peat immediately upgradient with the relatively low buffering capacity of the groundwater observed for monitoring well G60L have naturally resulted in a groundwater pH that is slightly lower than the pH of the surrounding site groundwater.

6.0 CONCLUSIONS

This technical review presents empirical evidence and analysis that demonstrates the GMF Pond is not the source of pH, SO4, and TDS SSIs at compliance well G60L. The PCA identified a geochemical signature in the GMF Pond source water and porewater that is different from groundwater and simultaneously demonstrates that geochemistry at G60L is far more similar to

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background/compliance wells than to the GMF Pond source water and porewater. This analysis was supported by evaluation of the major ion distribution, which showed a SO4-Cl source water and porewater signature not evident in the groundwater. The absence of B and Cl (both conservative tracers of CCR influence) from groundwater further demonstrates the GMF Pond is not impacting G60L. Soil boring logs revealed a localized pocket of native peat immediately upgradient of G60L. The combination of hydraulic gradients, aqueous and solid phase geochemistry, and empirical field observations at this location supports the conclusion that local peat is likely the source of the pH, SO4, and TDS SSIs at G60L.

7.0 ABBREVIATIONS

Alk, bicarb	Alkalinity measured as bicarbonate, also shown as HCO_3^-
As	Arsenic
B	Boron
Ba	Barium
Ca	Calcium
CCR	Coal combustion residual
Cl	Chloride
CO_3^{2-}	Carbonate ion
DC	Duck Creek
F	Fluoride
Fe	Iron
ft	feet
GMF Pond	Gypsum Management Facility Pond
H+	Hydrogen ion, represents acidity in groundwater
HCO3	Bicarbonate alkalinity
K	Potassium
Mg	Magnesium
Mn	Manganese
Mo	Molybdenum
NAVD88	North American Vertical Datum of 1988
Na	Sodium
SO4	Sulfate
SSIs	Statistically significant increases
TDS	Total dissolved solids

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COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
PORE WATER WELL
CCR SOURCE WATER SAMPLE
MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION
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0 150 300 Feet

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATIONS IN BRACKETS WERE OBTAINED OUTSIDE OF THE 24-HOUR PERIOD FROM INITIATION OF DEPTH TO GROUNDWATER MEASUREMENTS BUT WITHIN THE SAME SAMPLING EVENT.
3. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988

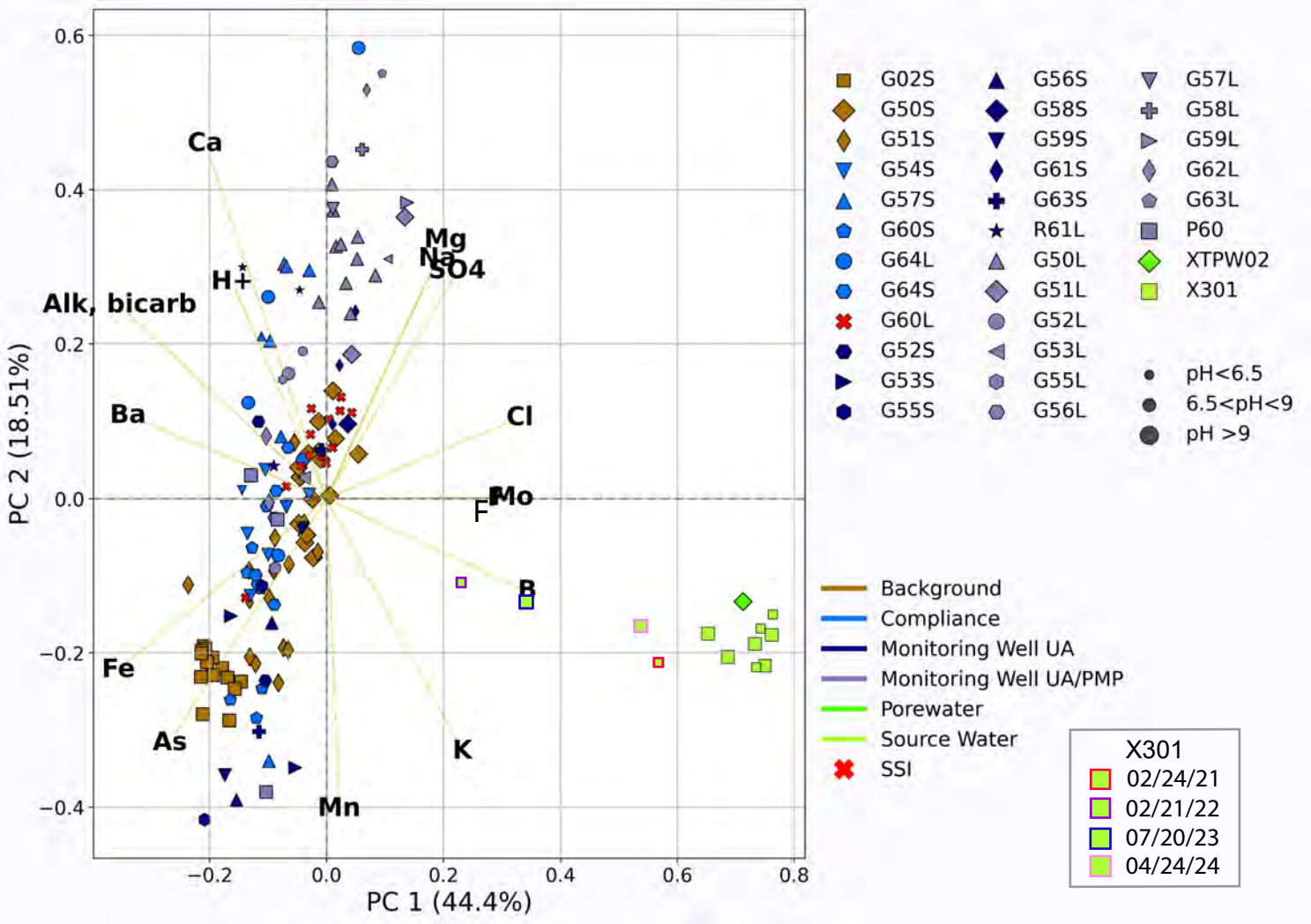
SAMPLING LOCATIONS AND POTENTIOMETRIC SURFACE MAP JANUARY 17 AND 18, 2024

ALTERNATIVE SOURCE DEMONSTRATION
GMF POND (UNIT ID: 203
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

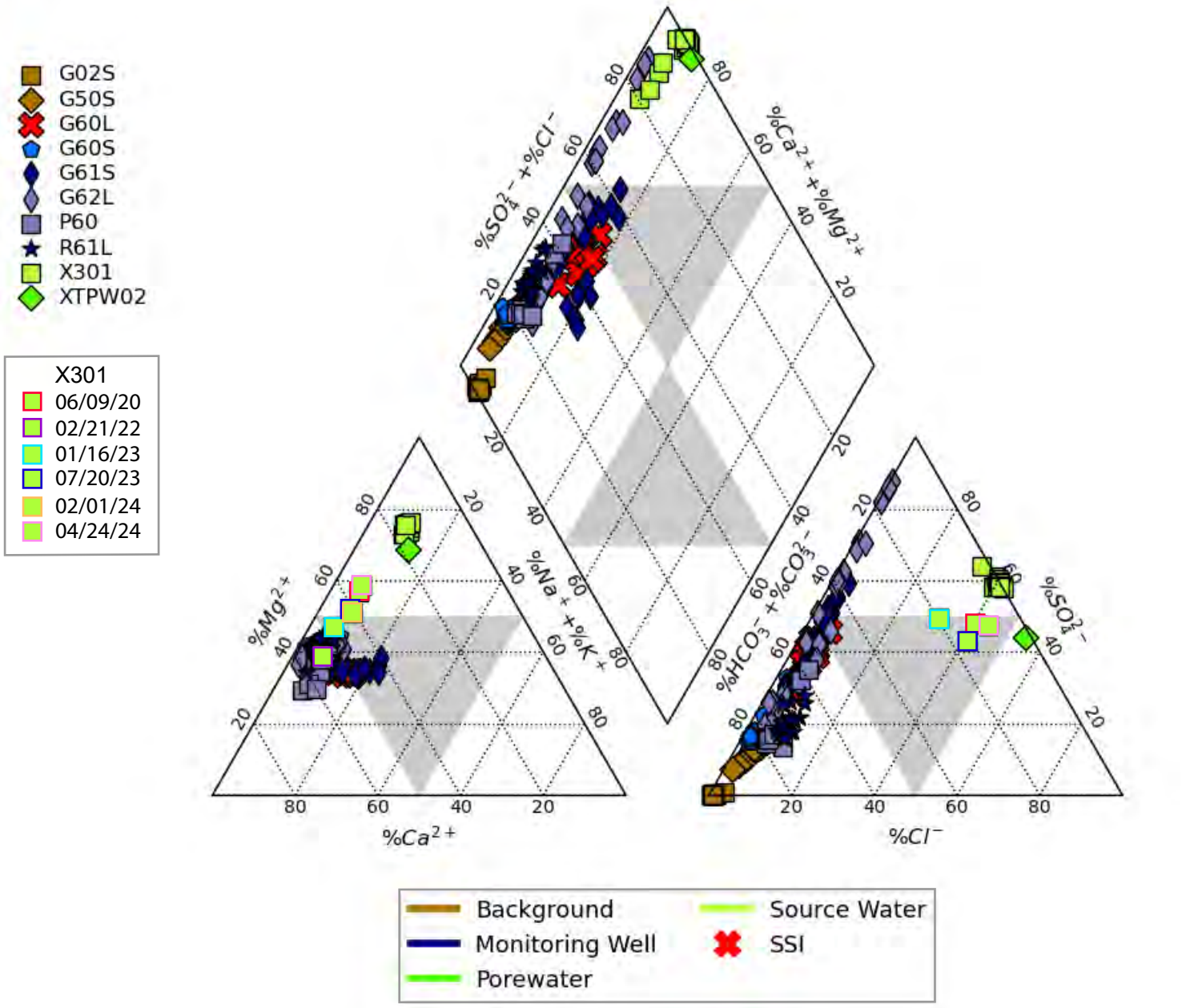
RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



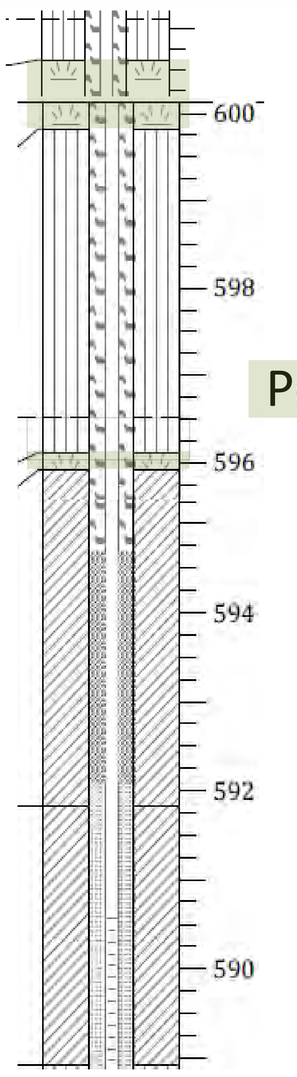
Principal Components Analysis (PCA) results for Duck Creek Gypsum Management Facility (GMF) Pond. Data is colored according to well classification and sized according to pH. See abbreviations list for complete analyte names. Anomalous source water samples identified with colored outlines for ease of comparison to Attachment 5.

LIFECYCLEGEO	Title: Duck Creek Principal Components Analysis Results		
	Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 2
	Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 08/28/2024	

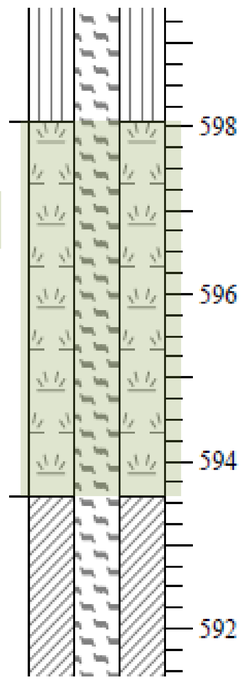


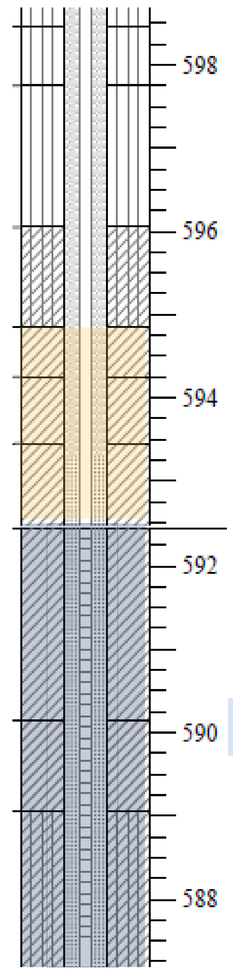
Piper diagram depicting major ion concentrations for background, source water, and area around G60L. Total ion concentrations were used for all wells except P60, R61L, G61S, and G62L, which are a combination of dissolved and total ions. Dissolved ions used to improve analysis of local geochemistry near G60L.

LIFECYCLEGEO	Title: Piper Diagram		
	Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 3
	Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 08/28/2024	



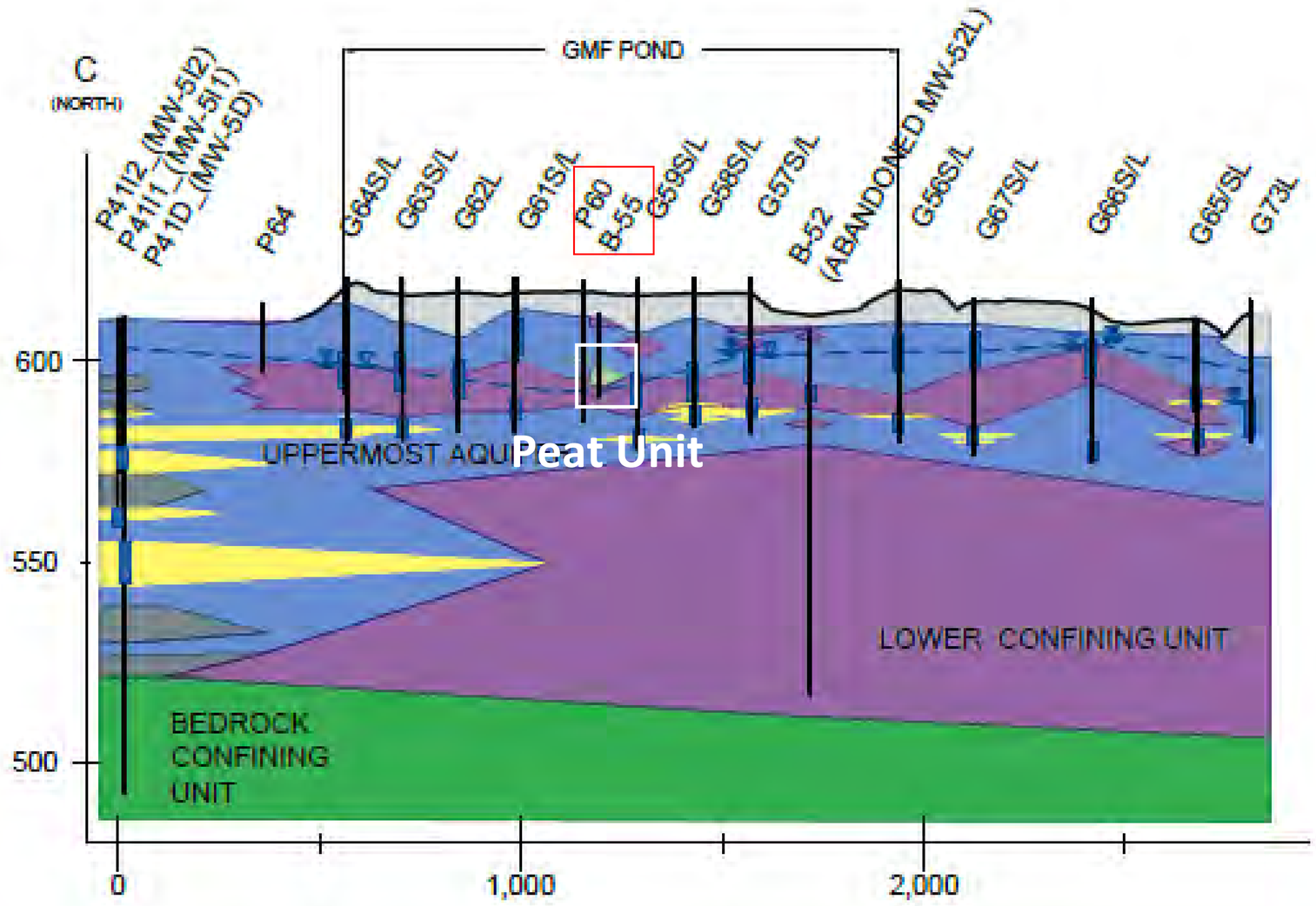
Peat





Filter Pack

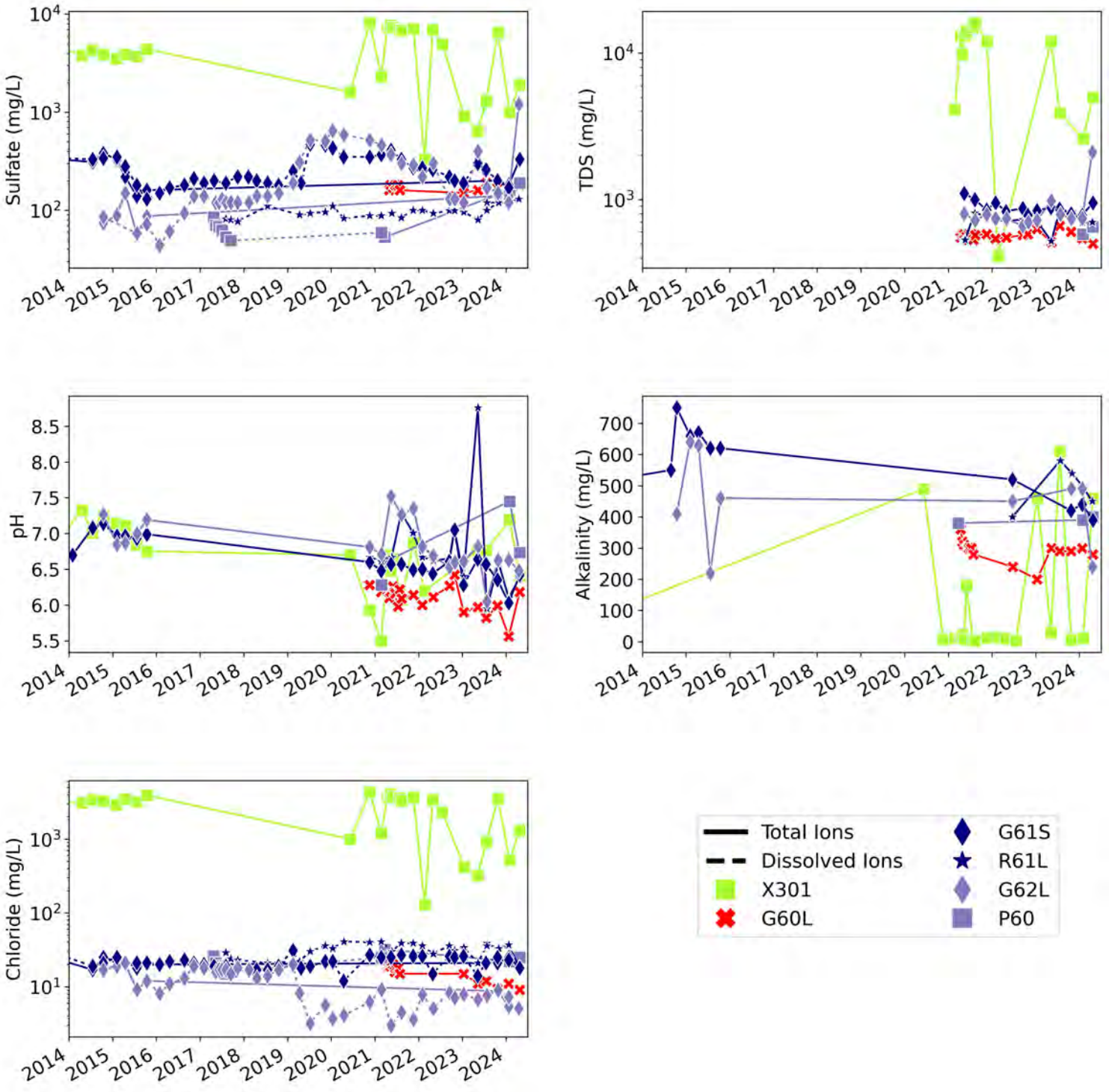
Well Screen



Top) Peat unit relative to filter pack and well screen of G60L. Groundwater contours from January 2023. Boring logs modifed from logs collected by Hanson. Groundwater map modified from Attachment 1. Bottom) Cross-section depicting local peat unit. Cross-section transect shown in top inset. All elevations in feet mean sea level. Cross-section modifed from Ramboll, 2021.

LIFECYCLEGEO

Title: Peat unit relative to G60L		
Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 4
Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 8/02/2023	



Time series depicting sulfate, TDS (total dissolved solids), pH, alkalinity as bicarbonate, and chloride concentrations for source water, G60L, and wells adjacent to G60L. Concentrations for sulfate ,TDS, and chloride are plotted on a log scale.

LIFECYCLEGEO	Title: Geochemical Parameters Associated with Peat		
	Project Name: Duck Creek - GMFP ASD	Project Number: [23RAM01-1] Vistra CCR	Attachment: 5
	Client Name: Ramboll Americas Engineering Solutions, Inc.	Date: 08/28/2024	

Attachment 6. X-ray **D**iffraction **(XRD) R**esults at Duck Creek Gypsum Management Pond.

Mineral/Compound	B-G52S (wt %)	B-G54L (wt %)	B-G57L (wt %)	B-G57S (wt %)	B-G62L (wt %)	B-G53S (wt %)	B-G02S (wt %)	B-G02L (wt %)
Quartz	48.4	57.6	51.2	59.9	61.7	51.1	61.1	49.2
Hornblende	3.7	1.4	2.4	-	-	-	-	-
Gypsum	-	-	-	-	-	-	-	-
Dolomite	**23.7**	**11.7**	**2.5**	**12.8**	**-**	**23.8**	**-**	**9.2**
Calcite	**6.7**	**0.8**	**0.1**	**0.3**	**-**	**4.1**	**-**	-
Albite	6.7	8.1	17.4	8.2	8.6	5.5	9.9	12.2
Chlorite	0.8	0.3	0.3	0.2	0.4	2.4	5.4	6.0
Muscovite	3.3	13.8	8.8	11.7	18.7	6.7	15.4	12.3
Rhodochrosite	3.2	-	-	-	-	-	0.4	-
Microcline	2.9	5.5	9.4	5.9	10.7	5.7	7.5	9.3
Pyrite	0.4	-	0.3	-	-	-	-	0.3
Halite	-	0.7	-	-	-	-	-	-
Montmorillonite	-	-	5.1	-	-	-	-	-
Goethite	-	-	1.1	-	-	-	-	-
Diaspore	-	-	0.3	-	-	-	-	-
Magnetite	-	-	0.4	-	-	-	-	0.4
Diopside	-	-	1.0	0.5	-	-	0.2	1.0
Actinolite	-	-	-	0.5	-	0.6	0.2	0.3

wt % - weight percent; bolded - carbonate minerals, buffers of groundwater pH

Attachment 7. Calcium **S**equential **E**xtraction (SEP) **R**esults at Duck Creek Gypsum Management Pond.

Calcium (mg/kg)		
Sample ID	**[1] Step 2: Carbonate Phase**	**[2] Sum: Steps 1-7**
B-G52S	18,000	90,000
B-G54L	2,300	23,000
B-G57L	730	11,000
B-G57S	3,600	39,000
B-G62L	600	3,200
B-G53S	13,000	80,000
B-G02S	210	4,900
B-G02L	2,400	24,000

[1] Step 2 represents the carbonate phase in the tested material.

[2] The sum of all seven SEP steps shows how much calcium was produced throughout testing.