

Prepared for
Illinois Power Resources Generating, LLC

Date
January 31, 2024

Project No.
1940103649-005


**2023 40 C.F.R. § 257 ANNUAL
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
LANDFILL
DUCK CREEK POWER PLANT
CANTON, ILLINOIS
CCR UNIT 204**

**2023 40 C.F.R. § 257 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT LANDFILL**

Project name **Duck Creek Power Plant Landfill**
Project no. **1940103649-005**
Recipient **Illinois Power Resources Generating, LLC**
Document type **Annual Groundwater Monitoring and Corrective Action Report**
Version **FINAL**
Date **January 31, 2024**
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Description **Annual Report required by 40 C.F.R. § 257.90(e)**

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ACRONYMS AND ABBREVIATIONS

40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternative Source Demonstration
CCR	coal combustion residuals
D12	Quarter 1, 2023 Detection Monitoring sampling event
D12R	Quarter 2, 2023 Detection Monitoring sampling event
D13	Quarter 3, 2023 Detection Monitoring sampling event
D13R	Quarter 4, 2023 Detection Monitoring sampling event
DCPP	Duck Creek Power Plant
GMP	Groundwater Monitoring Plan
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
TDS	total dissolved solids

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.) § 257.90(e) for the Landfill located at the Duck Creek Power Plant (DCPP) near Canton, Illinois.

Groundwater is being monitored at the Landfill 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 2023 (no wells were installed or decommissioned).

The following statistically significant increases (SSIs) of 40 C.F.R. § 257 Appendix III parameters above background concentrations were reported in 2023:

- pH at well G12S
- Total dissolved solids (TDS) at G06S

An Alternative Source Demonstration (ASD) was completed in 2023 for the SSIs referenced above and the Landfill 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 Landfill located at the DCPD 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 3**).
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 Landfill for calendar year 2023.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2023 and the Landfill remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2023

A summary of the samples collected from background and compliance monitoring wells in 2023 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**. A groundwater monitoring plan (GMP) was developed for the Landfill in 2023; no changes were made to the monitoring system (Ramboll, 2023a). No wells were installed or decommissioned in 2023.

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, 2023b).

Potentiometric surfaces for the semiannual sampling events are included in **Figure 2** and **Figure 3**. All available monitoring data and analytical results obtained under 40 C.F.R. § 257.90 through 257.98 in 2023 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 greater than background values. 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). An ASD was completed in 2023 for the SSIs summarized in **Table A**. The date the ASD was completed are also provided in **Table A**. The ASD was certified by a qualified professional engineer and is included in **Appendix D**. The Landfill remains in the Detection Monitoring Program.

Table A. 2023 Detection Monitoring Program Summary

Event ID	Sampling Dates ^{1, 2, 3}	Analytical Data Receipt Date	SSI(s) Determination Date	SSI(s)	ASD Completion Date
D12	January 9 - January 16, 2023	February 15, 2023	May 16, 2023	pH at well G12S; TDS at well G06S	August 14, 2023
D12R	May 8 – May 11, 2023	June 2, 2023	NA	NA	NA
D13	July 17 - July 25, 2023	October 19, 2023	January 17, 2024	Calcium at well G06S; pH at well G12S	TBD
D13R	October 19 and 27, 2023	January 2, 2024	NA	NA	NA

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

SSI: Statistically Significant Increase

TBD: to be determined in 2024

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, G04S

³ The following compliance wells were sampled for each event: G06S, G09S, G12S, G15S

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the groundwater monitoring program during 2023. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

- Continuation of the Detection Monitoring Program with semiannual sampling scheduled for the first and third quarters of 2024.
- Complete evaluation of analytical data from the compliance wells using updated 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 alternate 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 alternate 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 2024 Annual Groundwater Monitoring and Corrective Action Report.
 - If an alternate 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 2024 (*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. Multi-Site Statistical Analysis Plan, 40 C.F.R. § 257. December 28, 2022.

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

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

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023a. 40 C.F.R. § 257 Groundwater Monitoring Plan, Landfill, Duck Creek Power Plant, Canton, Illinois. December 31, 2023.

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

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
LANDFILL
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G02S	Background	UA	01/09/2023	13.16	608.50
G02S	Background	UA	02/08/2023	9.28	612.37
G02S	Background	UA	03/08/2023	5.46	616.19
G02S	Background	UA	04/08/2023	4.87	616.79
G02S	Background	UA	05/08/2023	5.57	616.09
G02S	Background	UA	07/25/2023	[10.47]	[611.19]
G02S	Background	UA	10/16/2023	14.23	607.43
G02S	Background	UA	11/20/2023	12.35	609.31
G02S	Background	UA	12/04/2023	10.71	610.95
G04S	Background	UA	01/09/2023	21.00	607.66
G04S	Background	UA	05/08/2023	11.14	617.52
G04S	Background	UA	07/17/2023	18.27	610.39
G04S	Background	UA	10/16/2023	21.43	607.23
G06S	Compliance	UA	01/09/2023	22.20	605.44
G06S	Compliance	UA	05/08/2023	20.15	607.49
G06S	Compliance	UA	07/17/2023	22.02	605.62
G06S	Compliance	UA	10/16/2023	23.34	604.30
G09S	Compliance	UA	01/09/2023	21.30	603.53
G09S	Compliance	UA	05/08/2023	19.73	605.10
G09S	Compliance	UA	07/17/2023	20.63	604.20
G09S	Compliance	UA	10/16/2023	22.33	602.50
G12S	Compliance	UA	01/09/2023	26.10	603.72
G12S	Compliance	UA	05/08/2023	19.72	610.10
G12S	Compliance	UA	07/17/2023	22.72	607.10
G12S	Compliance	UA	10/16/2023	25.70	604.12
G15S	Compliance	UA	01/09/2023	34.26	599.81
G15S	Compliance	UA	05/08/2023	25.21	608.86
G15S	Compliance	UA	07/17/2023	31.19	602.88
G15S	Compliance	UA	10/16/2023	34.44	599.63

Notes:
Only wells with groundwater elevations measured are included.
BMP = below measuring point
Bracketing [] indicates that the measurement was obtained outside of the episodic depth to groundwater measurements time frame.
NAVD88 = North American Vertical Datum of 1988
Monitored Unit Abbreviations:
 UA = uppermost aquifer

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
LANDFILL
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G02S	UA	Background	01/11/2023	D12	Boron, total	mg/L	0.130	NA	NA
G02S	UA	Background	07/25/2023	D13	Boron, total	mg/L	0.0370 J+	NA	NA
G02S	UA	Background	01/11/2023	D12	Calcium, total	mg/L	97.0	NA	NA
G02S	UA	Background	07/25/2023	D13	Calcium, total	mg/L	100	NA	NA
G02S	UA	Background	01/11/2023	D12	Chloride, total	mg/L	4.8 UJ	NA	NA
G02S	UA	Background	07/25/2023	D13	Chloride, total	mg/L	1.60	NA	NA
G02S	UA	Background	01/11/2023	D12	Fluoride, total	mg/L	0.320	NA	NA
G02S	UA	Background	07/25/2023	D13	Fluoride, total	mg/L	0.397 J+	NA	NA
G02S	UA	Background	01/11/2023	D12	pH (field)	SU	6.6	NA	NA
G02S	UA	Background	07/25/2023	D13	pH (field)	SU	6.6	NA	NA
G02S	UA	Background	01/11/2023	D12	Sulfate, total	mg/L	0.18 U	NA	NA
G02S	UA	Background	07/25/2023	D13	Sulfate, total	mg/L	1 UJ	NA	NA
G02S	UA	Background	01/11/2023	D12	Total Dissolved Solids	mg/L	490	NA	NA
G02S	UA	Background	07/25/2023	D13	Total Dissolved Solids	mg/L	440	NA	NA
G04S	UA	Background	01/11/2023	D12	Boron, total	mg/L	0.0780	NA	NA
G04S	UA	Background	07/18/2023	D13	Boron, total	mg/L	0.0180	NA	NA
G04S	UA	Background	01/11/2023	D12	Calcium, total	mg/L	150	NA	NA
G04S	UA	Background	07/18/2023	D13	Calcium, total	mg/L	140	NA	NA
G04S	UA	Background	01/11/2023	D12	Chloride, total	mg/L	16.0	NA	NA
G04S	UA	Background	07/18/2023	D13	Chloride, total	mg/L	17.0	NA	NA
G04S	UA	Background	01/11/2023	D12	Fluoride, total	mg/L	0.272	NA	NA
G04S	UA	Background	07/18/2023	D13	Fluoride, total	mg/L	0.249 J	NA	NA
G04S	UA	Background	01/11/2023	D12	pH (field)	SU	7.1	NA	NA
G04S	UA	Background	07/18/2023	D13	pH (field)	SU	7.2	NA	NA
G04S	UA	Background	01/11/2023	D12	Sulfate, total	mg/L	220	NA	NA
G04S	UA	Background	07/18/2023	D13	Sulfate, total	mg/L	250	NA	NA
G04S	UA	Background	01/11/2023	D12	Total Dissolved Solids	mg/L	740	NA	NA
G04S	UA	Background	07/18/2023	D13	Total Dissolved Solids	mg/L	780	NA	NA
G06S	UA	Compliance	01/11/2023	D12	Boron, total	mg/L	0.0250	0.157	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	Boron, total	mg/L	0.0650	0.157	No Exceedance
G06S	UA	Compliance	01/11/2023	D12	Calcium, total	mg/L	130	160	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	Calcium, total	mg/L	400	160	Determined
G06S	UA	Compliance	10/27/2023	D13R	Calcium, total	mg/L	270	160	Determined
G06S	UA	Compliance	01/11/2023	D12	Chloride, total	mg/L	9.00	20.0	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	Chloride, total	mg/L	5.90	20.0	No Exceedance
G06S	UA	Compliance	01/11/2023	D12	Fluoride, total	mg/L	0.245 J	0.466	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	Fluoride, total	mg/L	0.291	0.466	No Exceedance
G06S	UA	Compliance	01/11/2023	D12	pH (field)	SU	7.0	6.5/7.2	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	pH (field)	SU	7.0	6.5/7.2	No Exceedance
G06S	UA	Compliance	01/11/2023	D12	Sulfate, total	mg/L	110	330	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	Sulfate, total	mg/L	140	330	No Exceedance
G06S	UA	Compliance	01/11/2023	D12	Total Dissolved Solids	mg/L	1,400	790	Determined
G06S	UA	Compliance	05/09/2023	D12R	Total Dissolved Solids	mg/L	600	790	No Exceedance
G06S	UA	Compliance	07/18/2023	D13	Total Dissolved Solids	mg/L	670	790	No Exceedance
G09S	UA	Compliance	01/11/2023	D12	Boron, total	mg/L	0.0170	0.157	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	Boron, total	mg/L	0.0220 J+	0.157	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
LANDFILL
CANTON, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background	SSI Type
G09S	UA	Compliance	01/11/2023	D12	Calcium, total	mg/L	110	160	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	Calcium, total	mg/L	100	160	No Exceedance
G09S	UA	Compliance	01/11/2023	D12	Chloride, total	mg/L	18.0 J-	20.0	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	Chloride, total	mg/L	18.0	20.0	No Exceedance
G09S	UA	Compliance	01/11/2023	D12	Fluoride, total	mg/L	0.233 J	0.466	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	Fluoride, total	mg/L	0.25 UJ	0.466	No Exceedance
G09S	UA	Compliance	01/11/2023	D12	pH (field)	SU	7.0	6.5/7.2	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	pH (field)	SU	6.8	6.5/7.2	No Exceedance
G09S	UA	Compliance	01/11/2023	D12	Sulfate, total	mg/L	47.0	330	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	Sulfate, total	mg/L	52.0	330	No Exceedance
G09S	UA	Compliance	01/11/2023	D12	Total Dissolved Solids	mg/L	570	790	No Exceedance
G09S	UA	Compliance	07/24/2023	D13	Total Dissolved Solids	mg/L	520	790	No Exceedance
G12S	UA	Compliance	01/16/2023	D12	Boron, total	mg/L	0.0130	0.157	No Exceedance
G12S	UA	Compliance	07/24/2023	D13	Boron, total	mg/L	0.0170 J+	0.157	No Exceedance
G12S	UA	Compliance	01/16/2023	D12	Calcium, total	mg/L	79.0	160	No Exceedance
G12S	UA	Compliance	07/24/2023	D13	Calcium, total	mg/L	67.0	160	No Exceedance
G12S	UA	Compliance	01/16/2023	D12	Chloride, total	mg/L	18.0	20.0	No Exceedance
G12S	UA	Compliance	07/24/2023	D13	Chloride, total	mg/L	19.0	20.0	No Exceedance
G12S	UA	Compliance	01/16/2023	D12	Fluoride, total	mg/L	0.332	0.466	No Exceedance
G12S	UA	Compliance	07/24/2023	D13	Fluoride, total	mg/L	0.362 J+	0.466	No Exceedance
G12S	UA	Compliance	01/16/2023	D12	pH (field)	SU	7.4	6.5/7.2	Determined
G12S	UA	Compliance	05/11/2023	D12R	pH (field)	SU	7.6	6.5/7.2	Determined
G12S	UA	Compliance	07/24/2023	D13	pH (field)	SU	7.4	6.5/7.2	Determined
G12S	UA	Compliance	10/27/2023	D13R	pH (field)	SU	7.4	6.5/7.2	Determined
G12S	UA	Compliance	01/16/2023	D12	Sulfate, total	mg/L	89.0	330	No Exceedance
G12S	UA	Compliance	07/24/2023	D13	Sulfate, total	mg/L	100	330	No Exceedance
G12S	UA	Compliance	01/16/2023	D12	Total Dissolved Solids	mg/L	440	790	No Exceedance
G12S	UA	Compliance	07/24/2023	D13	Total Dissolved Solids	mg/L	470	790	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	Boron, total	mg/L	0.0110	0.157	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	Boron, total	mg/L	0.01 UJ	0.157	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	Calcium, total	mg/L	86.0	160	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	Calcium, total	mg/L	93.0	160	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	Chloride, total	mg/L	12.0	20.0	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	Chloride, total	mg/L	12.0	20.0	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	Fluoride, total	mg/L	0.282	0.466	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	Fluoride, total	mg/L	0.330 J+	0.466	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	pH (field)	SU	7.1	6.5/7.2	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	pH (field)	SU	6.2	6.5/7.2	Determined
G15S	UA	Compliance	10/27/2023	D13R	pH (field)	SU	7.1	6.5/7.2	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	Sulfate, total	mg/L	37.0	330	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	Sulfate, total	mg/L	43.0	330	No Exceedance
G15S	UA	Compliance	01/16/2023	D12	Total Dissolved Solids	mg/L	480	790	No Exceedance
G15S	UA	Compliance	07/25/2023	D13	Total Dissolved Solids	mg/L	480 J	790	No Exceedance

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
LANDFILL
CANTON, IL

Notes:

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

ID = identification

mg/L = milligrams per liter

NA = not applicable

R = resample

Statistically Significant Increase (SSI) Type:

No Exceedance: No exceedance of the background.

Determined: An exceedance was determined without comparison to a resample.

SU = Standard Units

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 low.

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.

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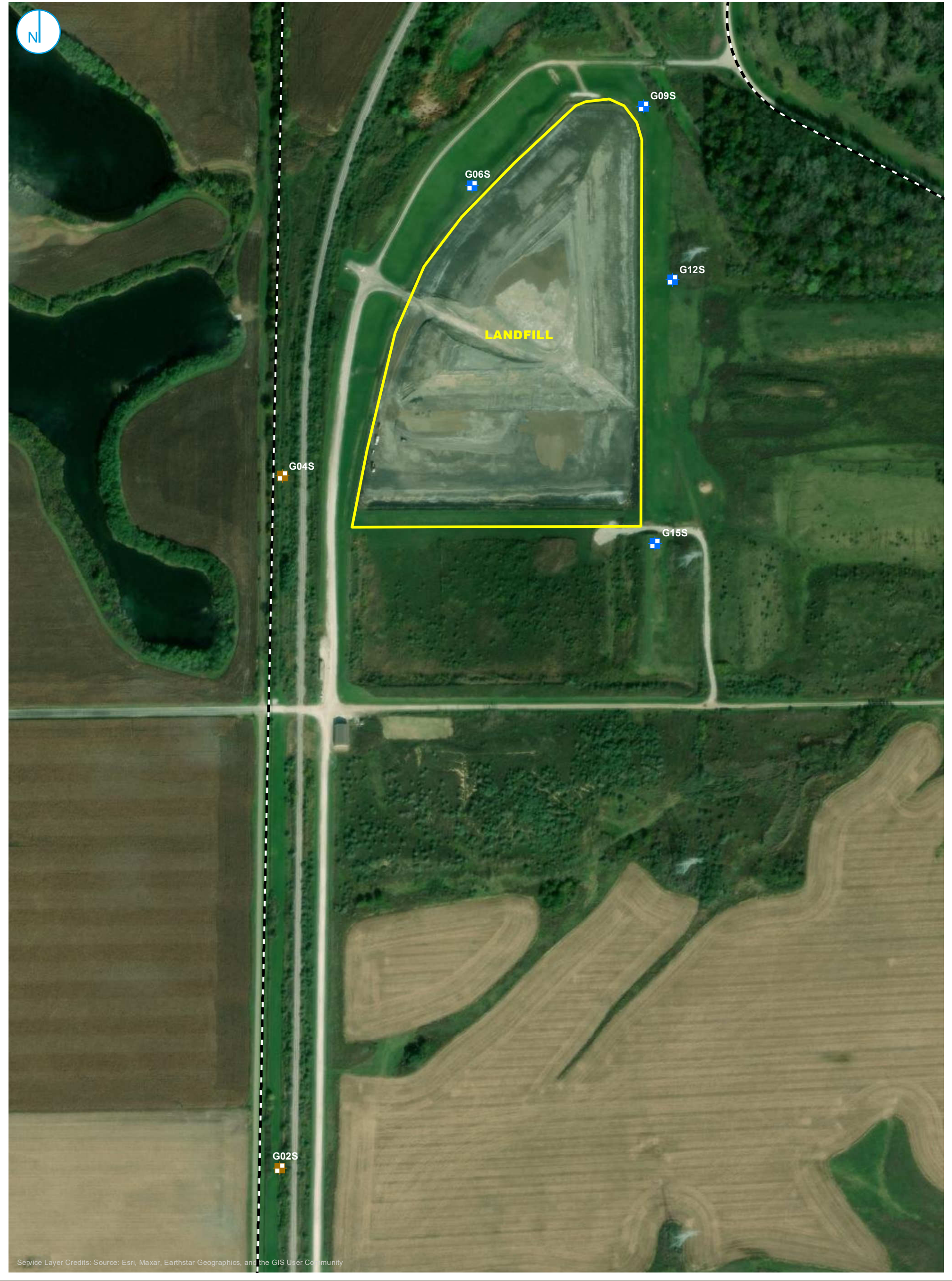
TABLE 3
STATISTICAL BACKGROUND VALUES
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
LANDFILL
CANTON, IL

Parameter	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	12/02/2015 - 01/31/2022	44	5	Parametric UPL (log-transformed)	0.157
Calcium (mg/L)	12/02/2015 - 01/31/2022	43	0	Non-Parametric UPL	160
Chloride (mg/L)	12/02/2015 - 01/31/2022	48	6	Non-Parametric UPL	20.0
Fluoride (mg/L)	12/02/2015 - 01/31/2022	44	16	Parametric UPL (log-transformed)	0.466
pH (field) (SU)	12/02/2015 - 01/31/2022	48	0	Parametric LPL/UPL	6.5/7.2
Sulfate (mg/L)	12/02/2015 - 01/31/2022	44	50	Non-Parametric UPL	330
Total Dissolved Solids (mg/L)	12/02/2015 - 01/31/2022	44	0	Non-Parametric UPL	790

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



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY

MONITORING WELL LOCATION MAP

FIGURE 1





- COMPLIANCE WELL
- BACKGROUND WELL
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION
CONTOUR (5-FT CONTOUR INTERVAL,
NAVD88)
- INFERRED GROUNDWATER
ELEVATION
- GROUNDWATER FLOW DIRECTION

NOTES:
1. ELEVATIONS IN PARENTHESES WERE 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

2023 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
LANDFILL
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



- 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).

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT LANDFILL DUCK CREEK POWER PLANT CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.



APPENDIX A

LABORATORY REPORTS AND FIELD DATA SHEETS



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

February 15, 2023

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,

A handwritten signature in cursive script that reads "Gail Schindler".

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GA02056

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



Work Order GA02681

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



Case Narrative

Dry Wells - G09L, G56L, G57L, G58L, G65L
G52S - pump does not work and is stuck in well
DTW below top of pump - G07L and P37L



APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, LANDFILL
DC-257-204

Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651



ANALYTICAL RESULTS

Sample: GA02056-07
Name: G02S
Matrix: Ground Water - Grab

Sampled: 01/11/23 10:25
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	< 5.0	mg/L	Q3	01/21/23 18:49	5	5.0	01/21/23 18:49	LAM	EPA 300.0 REV 2.1
Fluoride	0.320	mg/L		01/21/23 17:55	1	0.250	01/21/23 17:55	LAM	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		01/21/23 17:55	1	1.0	01/21/23 17:55	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	12.9	Feet		01/11/23 10:25	1		01/11/23 10:25	FIELD	Field*
Dissolved oxygen, Field	5.8	mg/L		01/11/23 10:25	1		01/11/23 10:25	FIELD	Field*
Oxidation Reduction Potential	-107	mV		01/11/23 10:25	1	-500	01/11/23 10:25	FIELD	Field*
pH, Field Measured	6.63	pH Units		01/11/23 10:25	1		01/11/23 10:25	FIELD	Field*
Specific Conductance, Field Measured	800.0	umhos/cm		01/11/23 10:25	1		01/11/23 10:25	FIELD	Field*
Temperature, Field Measured	11.2	°C		01/11/23 10:25	1		01/11/23 10:25	FIELD	Field*
Turbidity, Field Measured	80.8	NTU		01/11/23 10:25	1	0.00	01/11/23 10:25	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	250	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	490	mg/L		01/13/23 14:44	1	26	01/13/23 15:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	130	ug/L		01/17/23 08:50	5	10	01/19/23 12:54	JMW	EPA 6020A
Calcium	97	mg/L		01/17/23 08:50	5	0.20	01/19/23 12:54	JMW	EPA 6020A
Magnesium	36	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:54	JMW	EPA 6020A
Potassium	1.0	mg/L	B	01/17/23 08:50	5	0.10	01/19/23 12:54	JMW	EPA 6020A
Sodium	14	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:54	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02056-08
Name: G04S
Matrix: Ground Water - Grab

Sampled: 01/11/23 11:01
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	16	mg/L		01/21/23 19:26	5	5.0	01/21/23 19:26	LAM	EPA 300.0 REV 2.1
Fluoride	0.272	mg/L		01/21/23 19:08	1	0.250	01/21/23 19:08	LAM	EPA 300.0 REV 2.1
Sulfate	220	mg/L		01/21/23 20:20	50	50	01/21/23 20:20	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	19.83	Feet		01/11/23 11:01	1		01/11/23 11:01	FIELD	Field*
Dissolved oxygen, Field	4.7	mg/L		01/11/23 11:01	1		01/11/23 11:01	FIELD	Field*
Oxidation Reduction Potential	57.0	mV		01/11/23 11:01	1	-500	01/11/23 11:01	FIELD	Field*
pH, Field Measured	7.14	pH Units		01/11/23 11:01	1		01/11/23 11:01	FIELD	Field*
Specific Conductance, Field Measured	1000	umhos/cm		01/11/23 11:01	1		01/11/23 11:01	FIELD	Field*
Temperature, Field Measured	11.7	°C		01/11/23 11:01	1		01/11/23 11:01	FIELD	Field*
Turbidity, Field Measured	214	NTU		01/11/23 11:01	1	0.00	01/11/23 11:01	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	220	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	740	mg/L		01/13/23 14:44	1	26	01/13/23 15:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	78	ug/L		01/17/23 08:50	5	10	01/19/23 12:57	JMW	EPA 6020A
Calcium	150	mg/L		01/17/23 08:50	5	0.20	01/19/23 12:57	JMW	EPA 6020A
Magnesium	66	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:57	JMW	EPA 6020A
Potassium	1.6	mg/L	B	01/17/23 08:50	5	0.10	01/19/23 12:57	JMW	EPA 6020A
Sodium	9.5	mg/L		01/17/23 08:50	5	0.10	01/19/23 12:57	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02056-10
Name: G06S
Matrix: Ground Water - Grab

Sampled: 01/11/23 15:35
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	9.0	mg/L		01/21/23 20:38	1	1.0	01/21/23 20:38	LAM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		01/21/23 20:38	1	0.250	01/21/23 20:38	LAM	EPA 300.0 REV 2.1
Sulfate	110	mg/L		01/28/23 01:34	25	25	01/28/23 01:34	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	22.21	Feet		01/11/23 15:35	1		01/11/23 15:35	FIELD	Field*
Dissolved oxygen, Field	4.6	mg/L		01/11/23 15:35	1		01/11/23 15:35	FIELD	Field*
Oxidation Reduction Potential	119	mV		01/11/23 15:35	1	-500	01/11/23 15:35	FIELD	Field*
pH, Field Measured	7.02	pH Units		01/11/23 15:35	1		01/11/23 15:35	FIELD	Field*
Specific Conductance, Field Measured	925.0	umhos/cm		01/11/23 15:35	1		01/11/23 15:35	FIELD	Field*
Temperature, Field Measured	13.0	°C		01/11/23 15:35	1		01/11/23 15:35	FIELD	Field*
Turbidity, Field Measured	347	NTU		01/11/23 15:35	1	0.00	01/11/23 15:35	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	260	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	1400	mg/L		01/13/23 14:44	1	26	01/13/23 15:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	25	ug/L		01/17/23 08:50	5	10	01/19/23 13:34	JMW	EPA 6020A
Calcium	130	mg/L		01/17/23 08:50	5	0.20	01/19/23 13:34	JMW	EPA 6020A
Magnesium	62	mg/L		01/17/23 08:50	5	0.10	01/19/23 13:34	JMW	EPA 6020A
Potassium	1.3	mg/L	B	01/17/23 08:50	5	0.10	01/19/23 13:34	JMW	EPA 6020A
Sodium	7.4	mg/L		01/17/23 08:50	5	0.10	01/19/23 13:34	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02056-11
Name: G09S
Matrix: Ground Water - Grab

Sampled: 01/11/23 14:20
Received: 01/11/23 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	18	mg/L		01/21/23 22:08	10	10	01/21/23 22:08	LAM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		01/21/23 21:50	1	0.250	01/21/23 21:50	LAM	EPA 300.0 REV 2.1
Sulfate	47	mg/L		01/21/23 22:08	10	10	01/21/23 22:08	LAM	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	12.18	Feet		01/11/23 14:20	1		01/11/23 14:20	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		01/11/23 14:20	1		01/11/23 14:20	FIELD	Field*
Oxidation Reduction Potential	90.0	mV		01/11/23 14:20	1	-500	01/11/23 14:20	FIELD	Field*
pH, Field Measured	6.95	pH Units		01/11/23 14:20	1		01/11/23 14:20	FIELD	Field*
Specific Conductance, Field Measured	812.0	umhos/cm		01/11/23 14:20	1		01/11/23 14:20	FIELD	Field*
Temperature, Field Measured	13.6	°C		01/11/23 14:20	1		01/11/23 14:20	FIELD	Field*
Turbidity, Field Measured	300	NTU		01/11/23 14:20	1	0.00	01/11/23 14:20	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	250	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	570	mg/L		01/13/23 14:44	1	26	01/13/23 15:45	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	17	ug/L		01/17/23 08:50	5	10	01/19/23 13:37	JMW	EPA 6020A
Calcium	110	mg/L		01/17/23 08:50	5	0.20	01/19/23 13:37	JMW	EPA 6020A
Magnesium	51	mg/L		01/17/23 08:50	5	0.10	01/19/23 13:37	JMW	EPA 6020A
Potassium	1.5	mg/L	B	01/17/23 08:50	5	0.10	01/19/23 13:37	JMW	EPA 6020A
Sodium	9.7	mg/L		01/17/23 08:50	5	0.10	01/19/23 13:37	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02681-03
Name: G12S
Matrix: Ground Water - Grab

Sampled: 01/16/23 11:49
Received: 01/16/23 15:51

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	18	mg/L		02/01/23 04:41	10	10	02/01/23 04:41	CRD	EPA 300.0 REV 2.1
Fluoride	0.332	mg/L		02/01/23 04:22	1	0.250	02/01/23 04:22	CRD	EPA 300.0 REV 2.1
Sulfate	89	mg/L		02/01/23 04:41	10	10	02/01/23 04:41	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	25.84	Feet		01/16/23 11:49	1		01/16/23 11:49	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		01/16/23 11:49	1		01/16/23 11:49	FIELD	Field*
Oxidation Reduction Potential	-76.0	mV		01/16/23 11:49	1	-500	01/16/23 11:49	FIELD	Field*
pH, Field Measured	7.41	pH Units		01/16/23 11:49	1		01/16/23 11:49	FIELD	Field*
Specific Conductance, Field Measured	695.0	umhos/cm		01/16/23 11:49	1		01/16/23 11:49	FIELD	Field*
Temperature, Field Measured	11.2	°C		01/16/23 11:49	1		01/16/23 11:49	FIELD	Field*
Turbidity, Field Measured	17.3	NTU		01/16/23 11:49	1	0.00	01/16/23 11:49	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	160	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	440	mg/L		01/18/23 15:03	1	26	01/20/23 17:17	CPS	SM 2540C
<u>Total Metals - PIA</u>									
Boron	13	ug/L		01/19/23 08:31	5	10	01/20/23 11:07	JMW	EPA 6020A
Calcium	79	mg/L		01/19/23 08:31	5	0.20	01/20/23 11:07	JMW	EPA 6020A
Magnesium	38	mg/L	Q4	01/19/23 08:31	5	0.10	01/20/23 11:07	JMW	EPA 6020A
Potassium	0.40	mg/L		01/19/23 08:31	5	0.10	01/20/23 11:07	JMW	EPA 6020A
Sodium	5.4	mg/L		01/19/23 08:31	5	0.10	01/20/23 11:07	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GA02681-04
Name: G15S
Matrix: Ground Water - Grab

Sampled: 01/16/23 11:11
Received: 01/16/23 15:51

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	12	mg/L		02/01/23 05:19	10	10	02/01/23 05:19	CRD	EPA 300.0 REV 2.1
Fluoride	0.282	mg/L		02/01/23 05:00	1	0.250	02/01/23 05:00	CRD	EPA 300.0 REV 2.1
Sulfate	37	mg/L		02/01/23 05:19	10	10	02/01/23 05:19	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	34.09	Feet		01/16/23 11:11	1		01/16/23 11:11	FIELD	Field*
Dissolved oxygen, Field	3.3	mg/L		01/16/23 11:11	1		01/16/23 11:11	FIELD	Field*
Oxidation Reduction Potential	232	mV		01/16/23 11:11	1	-500	01/16/23 11:11	FIELD	Field*
pH, Field Measured	7.13	pH Units		01/16/23 11:11	1		01/16/23 11:11	FIELD	Field*
Specific Conductance, Field Measured	767.0	umhos/cm		01/16/23 11:11	1		01/16/23 11:11	FIELD	Field*
Temperature, Field Measured	11.1	°C		01/16/23 11:11	1		01/16/23 11:11	FIELD	Field*
Turbidity, Field Measured	15.0	NTU		01/16/23 11:11	1	0.00	01/16/23 11:11	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	210	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		01/17/23 10:08	1	2.0	01/17/23 10:08	HRF	SM 2320B 1997*
Solids - total dissolved solids (TDS)	480	mg/L		01/18/23 15:03	1	26	01/20/23 17:17	CPS	SM 2540C
Total Metals - PIA									
Boron	11	ug/L		01/19/23 08:31	5	10	01/20/23 11:11	JMW	EPA 6020A
Calcium	86	mg/L		01/19/23 08:31	5	0.20	01/20/23 11:11	JMW	EPA 6020A
Magnesium	42	mg/L		01/19/23 08:31	5	0.10	01/20/23 11:11	JMW	EPA 6020A
Potassium	0.38	mg/L		01/19/23 08:31	5	0.10	01/20/23 11:11	JMW	EPA 6020A
Sodium	8.8	mg/L		01/19/23 08:31	5	0.10	01/20/23 11:11	JMW	EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B323147 - No Prep - SM 2540C</u>									
Blank (B323147-BLK1)				Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323147-BS1)				Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	997	mg/L		1000		100	84.9-109		
Duplicate (B323147-DUP1)				Sample: GA02056-07 Prepared & Analyzed: 01/13/23					
Solids - total dissolved solids (TDS)	505	mg/L			490			3	5
<u>Batch B323330 - SW 3015 - EPA 6020A</u>									
Blank (B323330-BLK1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Boron	< 10	ug/L							
Calcium	< 0.20	mg/L							
Magnesium	< 0.10	mg/L							
Potassium	0.256	mg/L	B						
Sodium	0.312	mg/L	Ba						
LCS (B323330-BS1)				Prepared: 01/17/23 Analyzed: 01/19/23					
Boron	507	ug/L		555.6		91	80-120		
Calcium	5.43	mg/L		5.556		98	80-120		
Magnesium	5.63	mg/L		5.556		101	80-120		
Potassium	6.06	mg/L		5.556		109	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
<u>Batch B323514 - No Prep - SM 2540C</u>									
Blank (B323514-BLK1)				Prepared: 01/18/23 Analyzed: 01/20/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B323514-BS1)				Prepared: 01/18/23 Analyzed: 01/20/23					
Solids - total dissolved solids (TDS)	1020	mg/L		1000		102	84.9-109		
<u>Batch B323566 - SW 3015 - EPA 6020A</u>									
Blank (B323566-BLK1)				Prepared: 01/19/23 Analyzed: 01/20/23					
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 (B323566-BS1)				Prepared: 01/19/23 Analyzed: 01/20/23					
Boron	512	ug/L		555.6		92	80-120		
Calcium	5.44	mg/L		5.556		98	80-120		
Magnesium	5.47	mg/L		5.556		98	80-120		
Potassium	5.46	mg/L		5.556		98	80-120		
Sodium	5.36	mg/L		5.556		97	80-120		
Matrix Spike (B323566-MS1)				Sample: GA02681-03 Prepared: 01/19/23 Analyzed: 01/20/23					
Boron	530	ug/L		555.6	12.9	93	75-125		
Calcium	84.0	mg/L		5.556	78.6	98	75-125		
Magnesium	42.6	mg/L	Q4	5.556	38.3	77	75-125		
Potassium	5.73	mg/L		5.556	0.402	96	75-125		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B323566-MS1)				Sample: GA02681-03		Prepared: 01/19/23 Analyzed: 01/20/23			
Sodium	10.6	mg/L		5.556	5.44	93	75-125		
Matrix Spike Dup (B323566-MSD1)				Sample: GA02681-03		Prepared: 01/19/23 Analyzed: 01/20/23			
Boron	537	ug/L		555.6	12.9	94	75-125	1	20
Calcium	84.0	mg/L		5.556	78.6	97	75-125	0.02	20
Magnesium	42.4	mg/L	Q4	5.556	38.3	73	75-125	0.5	20
Potassium	5.78	mg/L		5.556	0.402	97	75-125	0.9	20
Sodium	10.7	mg/L		5.556	5.44	95	75-125	0.9	20
<u>Batch B323851 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B323851-CCB1)				Prepared & Analyzed: 01/21/23					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B323851-CCV1)				Prepared & Analyzed: 01/21/23					
Sulfate	4.82	mg/L		5.000		96	90-110		
Chloride	4.79	mg/L		5.000		96	90-110		
Fluoride	5.11	mg/L		5.000		102	90-110		
Matrix Spike (B323851-MS1)				Sample: GA02056-07		Prepared & Analyzed: 01/21/23			
Fluoride	1.73	mg/L		1.500	0.320	94	80-120		
Chloride	1.6	mg/L	Q1	1.500	4.2	NR	80-120		
Sulfate	1.53	mg/L		1.500	ND	102	80-120		
Matrix Spike (B323851-MS2)				Sample: GA02056-11		Prepared & Analyzed: 01/21/23			
Chloride	3.5	mg/L		1.500	18	NR	80-120		
Fluoride	1.66	mg/L		1.500	0.233	95	80-120		
Matrix Spike Dup (B323851-MSD1)				Sample: GA02056-07		Prepared & Analyzed: 01/21/23			
Chloride	3.1	mg/L	Q2	1.500	4.2	NR	80-120		20
Sulfate	1.54	mg/L		1.500	ND	102	80-120	0.3	20
Fluoride	1.72	mg/L		1.500	0.320	94	80-120	0.2	20
Matrix Spike Dup (B323851-MSD2)				Sample: GA02056-11		Prepared & Analyzed: 01/21/23			
Fluoride	1.67	mg/L		1.500	0.233	96	80-120	0.5	20
Chloride	3.0	mg/L		1.500	18	NR	80-120		20
<u>Batch B324437 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324437-CCB1)				Prepared & Analyzed: 01/27/23					
Sulfate	0.00	mg/L							
Calibration Check (B324437-CCV1)				Prepared & Analyzed: 01/27/23					
Sulfate	5.05	mg/L		5.000		101	90-110		
<u>Batch B324535 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B324535-CCB1)				Prepared & Analyzed: 01/31/23					
Fluoride	0.00	mg/L							
Chloride	0.899	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B324535-CCV1)				Prepared & Analyzed: 01/31/23					
Fluoride	5.06	mg/L		5.000		101	90-110		
Chloride	4.74	mg/L		5.000		95	90-110		
Sulfate	4.87	mg/L		5.000		97	90-110		

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 256 ug/L.
- Ba Present in the method blank at 312 ug/L.
- 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.

Gail Schindler



Certified by: Gail Schindler, Project Manager

GA02056-20

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 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: IL STATE:	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID G.L. WIPE AIR OTHER TISSUE	COLLECTED	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
										Requested Analysis Filtered (Y/N)											
										DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	BA01																				
2	BA02																				
3	BA02L																				
4	BA03																				
5	BA03L																				
6	BA04																				
7	BA05																				
8	BA06																				
9	G02S	WFG	1/11/23	1025		2															
10	G04S	WFG	1/11/23	1101		2															
11	G06L	WFG	1/11/23	1150		2															
12	G06S	WFG	1/11/23	1535		2															
13	G07L																				
14	G08L																				
15	G09L	WFG	1/11/23	1430		0															
16	G09S	WFG	1/11/23	1420		2															
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
DC-Q1-2023 Rev 3					1/11/23	1025															
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: <i>Wendy Harok</i>																					
SIGNATURE of SAMPLER: <i>[Signature]</i> DATE Signed (MM/DD/YY) 1/11/23																					

LA
1/19/23 for Joseph Reed

[Signature] 1-11-23 16:30

BA02056-20

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: 2 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location IL STATE:	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	SAMPLE TYPE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202			
1	G12S																									
2	G15S																									
3	G50L		WT G	1/11/23	1550		2																			
4	G50S																									
5	G51L																									
6	G51S																									
7	G52L																									
8	G52S																									
9	G53L		WT G	1/11/23	1444		2																			
10	G53S		WT G	1/11/23	1417		2																			
11	G54L																									
12	G54S																									
13	G55L																									
14	G55S																									
15	G56L																									
16	G56S																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-Q1-2023 Rev 3		1/11/23	1425				0.8	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: <i> Lindsey Hawksworth</i>					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YY): 1/11/23					

24
1/12/23 for Joseph Pined

1-11-23
16:30

GA02056-20

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: 3 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey			
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp		REGULATORY AGENCY	
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A		NPDES GROUND WATER DRINKING WATER	
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:		UST RCRA OTHER	
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		Site Location	
				Profile #		STATE: IL	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	SAMPLE TYPE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)								Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202			
1	G57L																									
2	G57S																									
3	G58L		WTG	1/11/23	1018		0																			
4	G58S		WTG	1/11/23	9520		2																			
5	G59L																									
6	G59S		WTG	1/11/23	1051		2																			
7	G60L																									
8	G60S																									
9	G61S		WTG	1/11/23	1137		2																			
10	G62L																									
11	G63L																									
12	G63S		WTG	1/11/23	1214		2																			
13	G64L		WTG	1/11/23	1327		4																			
14	G64S		WTG	1/11/23	1302		4																			
15	G65L																									
16	G65S																									
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION				DATE	TIME	SAMPLE CONDITIONS												
DC-Q1-2023 Rev 3						1/11/23	1625																			

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on 10e (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Lindsey Hawksworth	DATE Signed (MM/DD/YYYY): 1/11/23				
SIGNATURE of SAMPLER:					

LA for Joseph A.
1/19/23
1-11-23 16:30

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218
for
Joseph Red
1/12/23

NAME AND SIGNATURE: *Kidney Henderson*
NAME OF SAMPLER: *[Signature]*
DATE Signed (MM/DD/YYYY): *1/11/23*
[Signature] *1-11-23*
16:30

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 5 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
				Address: see Section A			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Quote Reference:		NPDES GROUND WATER DRINKING WATER	
Phone: (217) 753-8811 Fax:		Project Name:		Project Manager:		UST RCRA OTHER	
Requested Due Date/TAT: 10 day		Project Number: 2265		Profile #:		Site Location	
						STATE: IL	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOL/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		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ (Y/N)	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1		OM12																											
2		OM15																											
3		OM16																											
4		OM17																											
5		OM21																											
6		OM22D																											
7		OM22S																											
8		OM23D																											
9		OM23S																											
10		OM24D																											
11		OM25D																											
12		OM25S																											
13		OR02	WTG	1/11/23	1225		5																						
14		OR03D	WTG	1/11/23	1400		5																						
15		OR03S	WTG	1/11/23	1532		5																						
16		OR04D	WTG	1/11/23	1532		5																						
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION			DATE	TIME	ACCEPTED BY / AFFILIATION			DATE	TIME	SAMPLE CONDITIONS																
DC-Q1-2023 Rev 3						1/11/23	1525																						
SAMPLER NAME AND SIGNATURE													Temp in °C	Received on Ice (Y/N)	Cooled Sealed Cooler (Y/N)	Samples Intact (Y/N)													
PRINT Name of SAMPLER:																													
SIGNATURE of SAMPLER:																													
DATE Signed (MM/DD/YYYY):																													

248 for Joseph Mead
1/12/23

1-11-23
16:30

CHAIN-OF-CUSTODY / Analytical Request Document

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GA02056-20

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 6 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location IL STATE:	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WPE WPE AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	DC_257_203	DC_257_204		DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202							
1	OR05D																														
2	OR06A				1/11/23	12:43																									
3	OR11																														
4	OR13D																														
5	OR13S																														
6	OR14D																														
7	OR14S																														
8	OR18																														
9	OR19																														
10	OR20																														
11	P36L																														
12	P37L																														
13	R10L																														
14	R61L																														
15	R72S																														
16	T43L																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
DC-Q1-2023 Rev 3		1/11/23	14:25					08	Y	N	Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on file (Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)
PRINT Name of SAMPLER: Lindsay Harkness					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YYYY): 1/11/23					

for Joseph And
1/11/23

1-11-23
16:30

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Page: 1 of 721

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: 2 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPOES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: IL STATE:	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE CODE GROUND WATER OW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE IS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓ Analysis Test ↑	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	G12S		WTG		1/16/23	1140		2	X																				
2	G15S		WTG		1/16/23	1111		2	X																				
3	G50L																												
4	G50S																												
5	G51L																												
6	G51S																												
7	G52L		WTG		1/16/22	1423		2	X																				
8	G52S																												
9	G53L																												
10	G53S																												
11	G54L		WTG		1/16/23	1254		4	X																				
12	G54S		WTG		1/16/23	1355		4	X																				
13	G55L		WTG		1/16/23	1142		2	X																				
14	G55S		WTG		1/16/23	1213		2	X																				
15	G56L																												
16	G56S																												

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
DC-Q1-2023 Rev 3				1/16/23	1551			1/16/23	1551	40	✓	✓	✓

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on (or Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YY): 01/16/23					

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: 4 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: IL STATE:	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	SAMPLE TYPE (G-GRAB C-COUP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	DC_257_203	DC_257_204		DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202							
1	G66L																													
2	G66S																													
3	G67L																													
4	G67S																													
5	G70L																													
6	G71L																													
7	G71S																													
8	G72L																													
9	G73L																													
10	OM01																													
11	OM04S																													
12	OM05S																													
13	OM07																													
14	OM08																													
15	OM09																													
16	OM10																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-Q1-2023 Rev 3	<i>[Signature]</i>	1/16/23	1551	<i>[Signature]</i>	1/16/23	1551	Temp in °C	Retained on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
							4.0	✓	✓	✓

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	<i>Andrew Pemberton</i>
SIGNATURE of SAMPLER:	<i>[Signature]</i>
DATE Signed (MM/DD/YY):	01/16/23

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: 6 of 7	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER	
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:		Site Location	
				Profile #:		STATE: IL	

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	Matrix Type (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
				DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Analysis Test ↓	DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202						
1	OR05D																												
2	OR06A																												
3	OR11																												
4	OR13D																												
5	OR13S																												
6	OR14D																												
7	OR14S																												
8	OR18																												
9	OR19																												
10	OR20																												
11	P36L		WT G	1/16/23	1400		2	X	X																				
12	P37L		WT G	1/16/23	1250		2	X	X																				
13	R10L		WT G	1/16/23	1215		1		X																				
14	R61L																												
15	R72S																												
16	T43L		WT G	1/16/23	1113		2	X	X																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS																			
DC-Q1-2023 Rev 3				1/16/23	1551			1/16/23	1551	40 ✓		✓		✓															
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:																													
SIGNATURE of SAMPLER:										DATE Signed (MM/DD/YY):		01/16/23																	

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: 7 of 7	
Company: <u>Vistra Corp</u>		Report To: <u>Brian Voelker</u>		Attention: <u>Jason Stuckey</u>		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: <u>IL</u> STATE: <u>IL</u>	
Address: <u>13496 E. 900th St</u>		Copy To: <u>Jason Stuckey</u>		Company Name: <u>Vistra Corp</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No.:		Address: <u>see Section A</u>			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: <u>10 day</u>		Project Number: <u>2285</u>		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAV C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC_257_203	DC_257_204	DC_257_205	DC_811_204	DC_CLOSURE_201-202	DC_WPCP_203-206	DC_845_201-202					
1	T44L				1/16/23	1149		2	X																				
2	T45L				1/16/23	1228		2	X																				
3	T46L				1/16/23	1310		2	X																				
4	X301				1/16/23	1623		2	X																				
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-Q1-2023 Rev 3	<i>[Signature]</i>	1/16/23	1551	<i>[Signature]</i>	1/16/23	1551	4.6	✓	✓	✓

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:					
SIGNATURE of SAMPLER:					

Duck Creek

WELL/SAMPLE POINT **G02S**

Purge Method: Bladder

Date: 1/11/23 Start Time: 9:50 Finish/Sample Time: 10:25
Well Depth (Bottom) From MP: 29.05 ft (top of pump) Min. Purge Volume: 1.5 Gal 1
Depth to Water From MP: 12.90 ft Total Purge Volume: 1.8 Gal 1
Water Column Length: NA ft Max Drawdown: NA ft
Well Water Volume: 1 Gal / L Total Drawdown: 0.85 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	10:10	13.75	190	6.61	805	11.22	-107	6.05	86.8
2	10:11	13.75	100	6.62	802	11.18	-107	5.91	83.5
3	10:12	13.75	100	6.63	800	11.15	-107	5.85	80.8
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	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

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)
1	General (P, 250 mL) <u>1000mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 13.75 ft

Comments

Sampler's Signature: Jorge R. Reed

Duck Creek

WELL/SAMPLE POINT **G04S**

Purge Method: Bladder

Date: 1/11/23 Start Time: 1030 Finish/Sample Time: 1101
Well Depth (Bottom) From MP: 35.84 ft (top of pump) Min. Purge Volume: 1.5 Gal / L
Depth to Water From MP: 19.83 ft Total Purge Volume: 1.8 Gal / L
Water Column Length: NA ft Max Drawdown: NA ft
Well Water Volume: I Gal / L Total Drawdown: 0.22 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	1046	100	20.04	7.11	1000	11.73	57	5.12	280
2	1047	20.11	100	7.14	1000	11.74	57	4.88	231
3	1048	20.18	100	7.14	1000	11.72	57	4.68	214
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horriba

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	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

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)
1	General (P, 250 mL) <u>1000 mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 20.05 ft

Comments

Sampler's Signature: Joseph K. Reed

Duck Creek

WELL/SAMPLE POINT **G06S**

Purge Method: Bladder

Date: 1/11/23 Start Time: 1455 Finish/Sample Time: 1535

Well Depth (Bottom) From MP: 44.68 ft C+op of pump Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 22.21 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: NA ft Max Drawdown: NA ft

Well Water Volume: I Gal / L Total Drawdown: -0.01 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	1315	22.20	100	7.04	927	13.08	118	4.85	334
2	1316	22.20	100	7.03	925	13.05	119	4.69	337
3	1317	22.20	100	7.02	925	12.99	119	4.55	347
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

347
LH

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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250 mL) <u>1000 mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 22.20 ft

Comments

Sampler's Signature: Joseph R Rad

Duck Creek

WELL/SAMPLE POINT **G09S**

Purge Method: Bladder

Date: 1/11/23 Start Time: 1340 Finish/Sample Time: 1420

Well Depth (Bottom) From MP: 4407 ft (top of pump) Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 12.18 ft Total Purge Volume: 1.8 Gal / L

Water Column Length: NA ft Max Drawdown: NA ft

Well Water Volume: * Gal / L Total Drawdown: 8.29 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	1400	18.33	100	6.96	812	13.65	88	2.65	284
2	1401	18.48	100	6.95	812	13.61	89	2.48	291
3	1402	18.63	110	6.95	812	13.60	90	2.44	300
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	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

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)
1	General (P, 250 mL) <u>1000mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 2.84 ft 20.47

Comments * 18.33, 18.48, 18.63

Sampler's Signature: Joseph R Noel

Duck Creek

WELL/SAMPLE POINT G12S

Purge Method: bladder

Date: 1/16/2023 Start Time: 1118 Finish/Sample Time: 1149

Well Depth (Bottom) From MP: PMP ft
Min. Purge Volume: Gal / L
Depth to Water From MP: 25.84 ft
Total Purge Volume: 1000 Gal / L *m*
Water Column Length: NA ft
Max Drawdown: ft
Well Water Volume: Gal / L
Total Drawdown: 1.16 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	1131	26.73	100	7.41	696	11.19	-69	1.921	35.5
2	1133	26.73	100	7.42	696	11.23	-76	1.78	22.8
3	1135	26.74	100	7.41	695	11.27	-76	1.75	17.3
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

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)
1	General (P, 250 mL) <u>1000 mL</u>

②

Qty	Filtered Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 27.00 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G15S

Purge Method: bladder

Date: 1/16/2023 Start Time: 1020 Finish/Sample Time: 1111

Well Depth (Bottom) From MP: purp ft
Depth to Water From MP: 34.00 ft
Water Column Length: NA ft
Well Water Volume: 1 Gal / L
Min. Purge Volume: — Gal / L
Total Purge Volume: 1000 Gal / L (m)
Max Drawdown: — ft
Total Drawdown: 1.38 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	1047	35.47	100	7.17	772	11.53	219	3.63	39.5
2	1049	35.47	100	7.15	770	11.34	227	3.50	18.8
3	1051	35.47	100	7.13	768	11.17	229	3.338	17.6
4	1053	35.47	100	7.13	767	11.14	232	3.31	15.0
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250 mL) <u>1000mL</u>

(2)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 35.47 ft

Comments

Sampler's Signature: [Signature]

Multiparameter Meter Field Calibration Checklist

Field Personnel: KL JR		Location: Duck Creek	
Weather: 44° cloudy wind 4 mph		Environment: mud / grass	
Multiparameter Water Meter	Make: Horiba	Model: V-5000	Serial Number: U4U1FVTF
Water Level Meter	Make: Heron	Model: DIP-SET	Serial Number: 19FF220213 1ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	6.08	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	20.92	µS/cm	0<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.045	µS/cm	±5%	P	N		Geotech	2GE1442	May-23
ORP	228	mV	±15 mV	P	N		InSitu	2G1762	Jun-23
DO (Zero pt)	0.01	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	9.054	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.21	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: 852	
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	N	Geotech	2GC243	Mar-24
pH 7.00b	7.01	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	956	µS/cm	±5%	F	Recal	Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1548	
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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	N	MSI	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	N	N	MSI	L172-33	6/23/2023
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	N	N	MSI	L354-22	1/5/2024
SC 1000	997	µS/cm	±5%	P	N	N	Ricca	2108D48	Jul-23
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	P	N	N	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	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:	
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
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: 1/11/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>			Location: <u>Duck Creek</u>		
Weather: <u>43° - 52° cloudy</u> <u>Wind SE 3-5 mph</u>			Environment: <u>grass, soil, mud</u>		
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U-5000</u>	Serial Number: <u>YL9K J9HA</u>	
Water Level Meter		Make: <u>SOLINST</u>	Model: <u>101</u>	Serial Number: <u>252877</u>	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	L343-07	12/9/2023
pH 10.00a	<u>10.04</u>	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	<u>19.0</u>	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2060</u>	µS/cm	±5%				Geotech	1GK328	Nov-22
ORP	<u>243</u>	mV	±15 mV				InSitu	2GC827	Dec-22
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	<u>-</u>	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.2</u>	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

24A @ 10°C

ICV (Initial Calibration Verification)						Time: <u>0859</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC243	Mar-24
pH 7.00b	<u>6.88</u>	s.u.	±0.15 s.u.	<u>I</u>		Geotech	2GC931	Mar-24
pH 10.00b	<u>9.96</u>	s.u.	±0.15 s.u.	<u>I</u>		Geotech	2GE820	May-24
SC 1000	<u>1040</u>	µS/cm	±5%	<u>I</u>		Ricca	4205H64	May-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1450</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.07</u>	s.u.	±0.1 s.u.	<u>I</u>			MSI	L172-33	6/23/2023
pH 10.00a	<u>10.07</u>	s.u.	±0.1 s.u.	<u>I</u>			MSI	L354-22	1/5/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>I</u>			Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>I</u>			Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

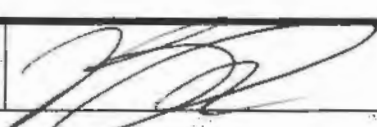
CCV (Continued Calibration Verification):						Time:	
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
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: <u>1/11/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	NALES DESKE			Location:	DUCK CREEK				
Weather:	44° CLOUDY WIND 4 mph			Environment:	GRASSY, NO DUCKS				
Multiparameter Water Meter	Make:	Hanna	Model:	U-52 HORIZA	Serial Number:	PW264503			
Water Level Meter	Make:	Hanna	Model:	Dipstick	Serial Number:	11FF2209305 ML			
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	L315-04	11/22/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC Zero (DI)	13.50	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1998	µS/cm	±5%				Geotech	1GK328	Nov-22
ORP	242	mV	±15 mV				InSitu	1GL481	Sep-22
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)		%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.24	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 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	3.99	s.u.	±0.15 s.u.	Pass	NO	Geotech	1GF009	Jun-23	
pH 7.00b	7.02	s.u.	±0.15 s.u.			Geotech	0GJ268	Oct-22	
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	1GF458	Jun-23	
SC 1000	1009	µS/cm	±5%			Ricca	2108D48	Jul-23	
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	4.00	s.u.	±0.1 s.u.	Pass	NO	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000	1006	µS/cm	±5%				Ricca	2108D48	Jul-23
DO (Zero pt)	0.02	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.24	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	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
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: 01/11/23				

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Austin Moore</u>				Location: <u>duck creek</u>			
Weather: <u>57-39° cloudy/rain</u> ^{wind} <u>sse</u> ^{temp} <u>11 mph</u>				Environment: <u>mud, grass, rain</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>V-5000</u>	Serial Number: <u>PW26YJ03</u>			
Water Level Meter		Make: <u>WT</u>	Model: <u>Herron</u>	Serial Number: <u>19FF21119245</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>19</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1998</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	1GK328	Nov-22
ORP	<u>253</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	2GC827	Dec-22
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>—</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0945</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.05</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC243	Mar-24	
pH 7.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>1025</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4205H64	May-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1447</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L315-04	11/22/2023
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L172-33	6/23/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L354-22	1/5/2024
SC 1000	<u>993</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Ricca	2108D48	Jul-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u> </u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
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: <u>Austin Moore</u>	Date: <u>16-Jun-23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	KYLE LAM			Location:	DUCK CREEK				
Weather:	38° to 57° cloudy rainy			Environment:	MUDY				
Multiparameter Water Meter	Make:	HANNA	Model:	HANNA	Serial Number:	1461FVF			
Water Level Meter	Make:	SCINIST	Model:	101	Serial Number:	336216			

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	Na	Na	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	20.36	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	19.95	µS/cm	±5%				Geotech	2GE1442	May-23
ORP	234	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.10	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.04	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	09:36				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.		
pH 4.00b	3.74	s.u.	±0.15 s.u.	P	Na	Geotech	2GC243	Mar-24		
pH 7.00b	6.92	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24		
pH 10.00b	10.00	s.u.	±0.15 s.u.			Geotech	2GE820	May-24		
SC 1000	961	µS/cm	±5%			Ricca	420SH64	May-24		

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	14:42				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.	
pH 4.00a		s.u.	±0.1 s.u.				MSI	L315-04	11/22/2023	
pH 7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023	
pH 10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024	
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23	
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:	14:42				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.	
4.00a	4.01	s.u.	±0.1 s.u.	P	Na	Na	MSI	L315-04	11/22/2023	
7.00a	6.98	s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023	
10.00a	10.04	s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024	
SC 1000	99.7	µS/cm	±5%				Ricca	2108D48	Jul-23	
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025	
Turbidity (DI)	1.15	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)	

Comments:

Signature:	[Signature]			Date:	1-16-23				
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Tamm Pemberton			Location:	Duck Creek				
Weather:	43°-55° cloudy rain wind SE 16 mph			Environment:	grass, mud				
Multiparameter Water Meter	Make:	Hanna	Model:	US800	Serial Number:	4L9H5A HA			
Water Level Meter	Make:	Hera	Model:	Dipart	Serial Number:	1262212131M			
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	L344-09	12/14/2023
pH 7.00a	6.97	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	9.94	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC Zero (DI)	10.0	µS/cm	0-25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060	µS/cm	±5%	P			Geotech	1GK328	Nov-22
ORP	238	mV	±15 mV	P			InSitu	2GC827	Dec-22
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	-	%	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:	0950		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	N/A	Geotech	2GC243	Mar-24	
pH 7.00b	6.98	s.u.	±0.15 s.u.	P		Geotech	2GC931	Mar-24	
pH 10.00b	10.01	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	1020	µS/cm	±5%	P		Ricca	4205H64	May-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	1452		
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	N/A	MSI	L315-04	11/22/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	L172-33	6/23/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P			MSI	L354-22	1/5/2024
SC 1000	1040	µS/cm	±5%	P			Ricca	2108D48	Jul-23
DO (Zero pt)	0.09	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	L315-04	11/22/2023
7.00a		s.u.	±0.1 s.u.				MSI	L172-33	6/23/2023
10.00a		s.u.	±0.1 s.u.				MSI	L354-22	1/5/2024
SC 1000		µS/cm	±5%				Ricca	2108D48	Jul-23
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:	1/16/2023
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Pace Analytical Services, LLC

2231 W. Altorfer Drive

Peoria, IL 61615

(800)752-6651

June 02, 2023

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

RE: DC 23Q2

Dear Daryl Johnson:

Please find enclosed the **revised** analytical results for the **40** sample(s) the laboratory received on **5/9/23 5:05 pm** and logged in under work order **GE01867**. 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, *Gail Schindler*

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GE01867

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



Work Order GE02632

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



Case Narrative

G08L water level below top of pump



ANALYTICAL RESULTS

Sample: GE01867-04
Name: G06S
Matrix: Ground Water - Grab

Sampled: 05/09/23 13:40
Received: 05/09/23 17:05

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	600	mg/L		1		26	05/15/23 12:57	HRF	SM 2540C

Sample: GE02632-07
Name: G12S
Matrix: Ground Water - Grab

Sampled: 05/11/23 12:25
Received: 05/11/23 17:20

Parameter	Result	Unit	Qualifier	Dilution	MDL	MRL	Analyzed	Analyst	Method
<u>Field - PIA</u>									
pH, Field Measured	7.56	pH Units		1			05/11/23 12:25	FIELD	Field



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B333378 - No Prep - SM 2540C</u>									
Blank (B333378-BLK1)				Prepared & Analyzed: 05/15/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B333378-BS1)				Prepared & Analyzed: 05/15/23					
Solids - total dissolved solids (TDS)	937	mg/L		1000		94	84.9-109		



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



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

Gail g Schindler

Certified by: Gail Schindler, Project Manager



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Section ASection BSection BSection CSection CPage:Page: 1 of 9

Report To: Brian Voelker

Attention: Jason Stuckey

Attention: Jason Stuckey

100

100

Copy To: Jason Stuckey

Company Name: Vistra Corp

Company Name: **Vistra Corp**

REGULATORY AGENCYREGULATORY AGENCYREGULATORY AGENCY

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	Received (Y/N)	Stored by Co (Y/N)	Released (Y/N)

GEO1867

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, LANDFILL
DC-257-204

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**
Address: **13498 E. 900th St**
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: **Jason Stuckey**
Purchase Order No.:
Project Name:
Project Number: **2285**

Section C
Invoice Information:
Attention: **Jason Stuckey**
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 **IL**
STATE:

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DW DRINKING WATER WW WASTE WATER P PRODUCT SL SOIL/SOLID OL OIL WPE WASTE PAPER OT OTHER TS TISSUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										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.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other															
1																															
2																															
3																															
4																															
5																															
6																															
7																															
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11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS
DC-23Q2-Rev 0



RELINQUISHED BY / AFFILIATION
DATE **TIME**
5/9/23 **17:01**

ACCEPTED BY / AFFILIATION
DATE **TIME**
5/9/23 17:09

SAMPLE CONDITIONS
Temp in °C **9.7**
Received on ice (Y/N) **1**
Custody Sealed Cooler (Y/N) **1**
Samples Intact (Y/N) **1**





SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

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

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:	JAMES J. HANCOCK JAMES J. HANCOCK 		Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
	DATE Signed (MM/DD/YYYY): 05/09/23		
	SIGNATURE of SAMPLER: 		

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

Page: 4 of 9[illegible]

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-23Q2-Rev 0		5/19/23	1701	grace jackson	5/19/23	17:05	5	—	—	—	—								
<table border="1"> <thead> <tr> <th colspan="2">SAMPLER NAME AND SIGNATURE</th> </tr> </thead> <tbody> <tr> <td>PRINT Name of SAMPLER:</td> <td>Aaron Jimlaertson</td> </tr> <tr> <td>SIGNATURE of SAMPLER:</td> <td></td> </tr> <tr> <td>DATE Signed (MM/DD/YYYY):</td> <td>05/19/23</td> </tr> </tbody> </table>												SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:	Aaron Jimlaertson	SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YYYY):	05/19/23
SAMPLER NAME AND SIGNATURE																			
PRINT Name of SAMPLER:	Aaron Jimlaertson																		
SIGNATURE of SAMPLER:																			
DATE Signed (MM/DD/YYYY):	05/19/23																		

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7DC-257-204

Geo 2632
 Vm 5-12-23

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Section D Regulatory Agency Information:	
Company:	Visira Corp	Report To:	Brian Voelker	Attention:	Jason Stuckey	NPDES	GROUND WATER
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Visira Corp	UST	DRINKING WATER
Email To:	Brian.Voelker@VisiraCorp.com	Purchase Order No.:		Address:	see Section A	RCRA	OTHER
Phone:	(217) 753-8911	Project Name:		Quote Reference:		Site Location	
Fax:		Project Manager:		Profile #:		STATE:	IL
Requested Due Date/TAT:		10 day		Project Number: 2285			

ITEM #	Section D Required Client Information		Valid Matrix Codes		COLLECTED		RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		SAMPLE CONDITIONS	
	MATRIX	CODE	MATRIX CODE	TYPE (G=GRAB C=COMP)	DATE	TIME	DATE	TIME	DATE	TIME	Temp in °C	Received on
1	DC_BA01		WT G	5/11/23	1333						5	/
2	DC_BA02											
3	DC_BA02IL											
4	DC_BA03											
5	DC_BA03IL											
6	DC_BA04		WT G	5/11/23	1146							
7	DC_BA05#											
8	DC_BA06											
9	DC_G02IL											
10	DC_G02#S											
11	DC_G02&D											
12	DC_G03IL											
13	DC_G04IL											
14	DC_G06IL											
15	DC_G06#S											
16	DC_G07IL											

DC-23Q2-Rev 0

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: *Harold Jackson*
SIGNATURE of SAMPLER: *[Signature]*
DATE Signed (MM/DD/YY): 05/11/23

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CHAIN-OF-CUSTODY / Analytical Request Document

JE02632
Vmw5-12-23

Page: 2 of 9

Section A		Section B		Section C		Page: 2 of 9	
Required Client Information:		Required Project Information:		Invoice Information:			
Company:	Visira Corp	Report To:	Brian Voelker	Report To:	Jason Stuckey		
Address:	13498 E. 900th St	Copy To:	Jason Stuckey	Company Name:	Visira Corp		
				Address:	see Section A		
				Quote Reference:			
				Project Manager:			
				Profile at:			
				Purchase Order No.:			
				Project Name:			
				Project Number:	2285		
				Requested Due Date/AT:	10 day		
				REGULATORY AGENCY			
				NPDES	GROUND WATER	DRINKING WATER	
				UST	RCRA	OTHER	
				Site Location		STATE:	
						IL	

[illegible]

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

CHAIN-OF-CUSTODY / Analytical Request Document

Section A	Section B	Section C	<div style="border: 1px solid black; padding: 5px;"> Page: 8 of 9 </div>
Required Client Information:	Required Project Information:	Invoice Information:	
Company: Visira Corp	Report To: Brian Voelker	Attention: Jason Stuckey	
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Visira Corp	
		Address: see Section A	
			REGULATORY AGENCY
			NPDES GROUND WATER DRINKING WATER

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

Email To:	Brian.Voelker@VisiraCom.com	Purchase Order No.:		Quota Reference:		UST RCRA OTHER	
Phone: (217) 753-8911	Fax:	Project Name:		Project Manager:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #:			
						Site Location IL	STATE:

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, LANDFILL

DC-257-204

Section D
Required Client Information

Valid Matrix Codes

MATRIX

DRINKING WATER
WASTE WATER
WASTE WATER PRODUCT
SOIL/SOLID
OIL
WPE
AIR
OTHER
TISSUE

CODE
DW
WW
WVP
P
SL
OL
WP
AR
OT
TS

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

TIME

SAMPLE TEMP AT COLLECTION

OF CONTAINERS

Unpreserved
H₂SO₄
HNO₃
HCl
NaOH
Na₂S₂O₃
Methanol
Other

Analysis Test

Y/N

↓

Requested Analysis Filtered (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.

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

SAMPLE CONDITIONS

DC-23Q2-Rev 0

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE SIGNED

TIME SIGNED

5/11/23

1720

5/11/23

17:20

5

Received on

Ice (Y/N)

Custody Sealed Cooler (Y/N)

Sample Initial (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

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

[illegible]

19

Duck Creek

WELL/SAMPLE POINT **G06S**

Purge Method:

Bladder/Low Flow

Date: 5/9/23

Start Time: 1317

Finish/Sample Time: 1340

Well Depth (Bottom) From MP: _____ ft

Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 20.15 ft

Total Purge Volume: 1.3 Gal / L

Water Column Length: _____ ft

Max Drawdown: _____ ft

Well Water Volume: _____ Gal / L

Total Drawdown: _____ 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	1329	2020	100	6.84	797	16.01	195	1.96	>1000
2	1330	2020	100	6.84	800	15.95	196	1.96	>1000
3	1331	2020	100	6.83	799	15.94	197	1.94	>1000
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	<input checked="" type="checkbox"/>	
Casing locked/secure	<input checked="" type="checkbox"/>	
Well cap fits securely.	<input checked="" type="checkbox"/>	
Good seal/drainage	<input checked="" type="checkbox"/>	
Well has weep holes	<input checked="" type="checkbox"/>	

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, 250 mL)

①

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 2020 ft

Comments

Sampler's Signature:

Joseph R. Head

Duck Creek

WELL/SAMPLE POINT G12S

Purge Method: Dedicated Blaster Pump

Date: 5/11/2023 Start Time: 1202 Finish/Sample Time: 1225

Well Depth (Bottom) From MP: ft
Min. Purge Volume: 1000 Gal/L (mL)
Depth to Water From MP: 14.64 ft
Total Purge Volume: 1000 Gal/L (mL)
Water Column Length: ft
Max Drawdown: ft
Well Water Volume: Gal (L)
Total Drawdown: 1.06 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	1217	20.70	100	7.55	653	15.12	39	3.46	204
2	1219	20.70	100	7.56	658	15.15	39	3.52	181
3	1221	20.70	100	7.56	655	15.10	38	3.57	148
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250 mL)

①

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 20.70 ft

Comments

Sampler's Signature: [Signature]

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>		Location: <u>Duck Creek</u>	
Weather: <u>62-75° Sunny Wind NE 8 mph</u>		Environment: <u>grass, trees, dirt</u>	
Multiparameter Water Meter	Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>762193</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>Dipart</u>	Serial Number: <u>3717-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.14</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Yes</u>	<u>4.00</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Yes</u>	<u>7.00</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Yes</u>	<u>10.00</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>19.85</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>No</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1998.2</u>	µS/cm	±5%	<u>P</u>	<u>No</u>	<u>-</u>	Geotech	2GE1442	May-23
ORP	<u>228.7</u>	mV	±15 mV	<u>P</u>	<u>No</u>	<u>-</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>No</u>	<u>-</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>9.77</u>	%	97-100%	<u>P</u>	<u>No</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>No</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification)					Time: <u>0953</u>
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?
pH 4.00b	<u>4.06</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>-</u>
pH 7.00b	<u>6.93</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>-</u>
pH 10.00b	<u>9.94</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>-</u>
SC 1000	<u>1019.7</u>	µS/cm	±5%	<u>P</u>	<u>-</u>

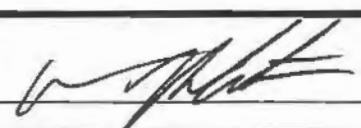
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1538</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>No</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>No</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>No</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1042.1</u>	µS/cm	±5%	<u>P</u>	<u>No</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>No</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>No</u>	<u>N/A</u>	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>5/19/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Virginia Duck Creek			
Weather: 63-78°F sunny wind NE 10 mph				Environment: 0455			
Multiparameter Water Meter		Make: Hanna	Model: V-5000	Serial Number: 0401FVTF			
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	3.98	s.u.	±0.1 s.u.	Pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.71	s.u.	±0.1 s.u.	Fail	Yes	7.00	MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	Pass	No	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	19	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1960	µS/cm	±5%				Geotech	2GE1442	May-23
ORP	234	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.08	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				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)				Time: 1020				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.87	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	979	µS/cm	±5%			Ricca	4207N97	Jul-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	4.10	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1030	µS/cm	±5%				Ricca	4207N97	Jul-24
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 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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: 5/9/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glennon</u>				Location: <u>Duck Creek</u>			
Weather: <u>61° Mostly Sunny 8mph WSW</u>				Environment: <u>Grass Field</u>			
Multiparameter Water Meter:		Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>762215</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>200ft.</u>	Serial Number: <u>19FF2111192HB</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.98</u>	s.u.	±0.1 s.u.	<u>L</u>	<u>L</u>	<u>L</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>L</u>	<u>L</u>	<u>L</u>	MSI	M082-04	3/25/2024
SC 1000a	<u>2332.1</u>	µS/cm	0<25 µS/cm	<u>F</u>	<u>N</u>	<u>2009.5</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 1000b	<u>12.21</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	2GE1442	May-23
ORP	<u>238.2</u>	mV	±15 mV	<u>L</u>	<u>L</u>	<u>L</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.06</u>	mg/L	±0.1	<u>L</u>	<u>L</u>	<u>L</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.01</u>	%	97-100%	<u>L</u>	<u>L</u>	<u>L</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.11</u>	NTU	<2 NTU	<u>L</u>	<u>L</u>	<u>L</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0910</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.10</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>6.90</u>	s.u.	±0.15 s.u.	<u>L</u>	<u>L</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.97</u>	s.u.	±0.15 s.u.	<u>L</u>	<u>L</u>	Geotech	2GE820	May-24	
SC 1000	<u>1038.2</u>	µS/cm	±5%	<u>L</u>	<u>L</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1516</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>L</u>	<u>L</u>	<u>L</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.95</u>	s.u.	±0.1 s.u.	<u>L</u>	<u>L</u>	<u>L</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1080.4</u>	µS/cm	±5%	<u>L</u>	<u>L</u>	<u>L</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>L</u>	<u>L</u>	<u>L</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.41</u>	NTU	<2 NTU	<u>L</u>	<u>L</u>	<u>L</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u> </u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>Brendan Glennon</u>	Date: <u>5/9/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lane				Location: Duck Creek			
Weather: 54° to 77° sunny				Environment: Dry			
Multiparameter Water Meter		Make: Horiba	Model: V-500b	Serial Number: PW264503			
Water Level Meter		Make: Heron	Model: Water Table	Serial Number: 11FF2209305ML			

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	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	9.96	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	20.00	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2,030	µS/cm	±5%	P	NA	NA	Geotech	2GE1442	May-23
ORP	214	mV	±15 mV	P	NA	NA	InSitu	2G1762	Jun-23
DO (Zero pt)	0.05	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	9.910	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.00	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

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	3.98	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.99	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24
pH 10.00b	9.92	s.u.	±0.15 s.u.	P	NA	Geotech	2GE820	May-24
SC 1000	1040	µS/cm	±5%	P	NA	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: NA			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: 15:38			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.04	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
7.00a	6.91	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	9.96	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1030	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	1.00	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Comments: **NA**

Signature: Kyle Lane	Date: 5-9-2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed			Location:	Duck Creek				
Weather:	Sunny 60-75° wind 8 mph			Environment:	gravel road				
Multiparameter Water Meter	Make:	Horiba	Model:	V5000	Serial Number:	YL9KJ9HA			
Water Level Meter	Make:	Solinst	Model:	101	Serial Number:	P7/LM2			

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		MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	9	µS/cm	0-25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	N		Geotech	2GE1442	May-23
ORP	240	mV	±15 mV	P	N		InSitu	2G1762	Jun-23
DO (Zero pt)	0.05	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.2	%	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 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	945				
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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	2GE870	Mar-24
pH 7.00b	7.01	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24
SC 1000	1000	µS/cm	±5%	P	N	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1537				
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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	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	N		Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
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

CCV (Continued Calibration Verification):					Time:					
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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:	5/9/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Kimberlin</u>		Location: <u>Duck Creek</u>	
Weather: <u>73°-74° Sunny w/n SE 8 mph</u>		Environment: <u>grass, dirt</u>	
Multiparameter Water Meter	Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>04U1FVTF</u>
Water Level Meter	Make: <u>Merom</u>	Model: <u>D:PART</u>	Serial Number: <u>19FF211192HB</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>18</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Geotech	2GE1442	May-23
ORP	<u>238</u>	mV	±15 mV	<u>P</u>	<u>N/A</u>	<u>N/A</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>09.81</u>	%	97-100%	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0945</u>		<u>23°C @ 21°C</u>		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>6.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24	
SC 1000	<u>989</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1530</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N/A</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N/A</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N/A</u>	<u>N/A</u>	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>[Signature]</u>	Date: <u>5/11/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: Vista Duck Creek			
Weather: 70-75°F m. sunny wind SE 10-14 mph				Environment: grass			
Multiparameter Water Meter		Make: AquaRoll	Model: 600	Serial Number: 762215			
Water Level Meter		Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305 ML			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.81	s.u.	±0.1 s.u.	fail	Yes	4.00	MSI	L344-09	12/14/2023
pH 7.00a	6.95	s.u.	±0.1 s.u.	pass	No	NA	MSI	L343-07	12/9/2023
pH 10.00a	9.93	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	15.67	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1964.5	µS/cm	±5%				Geotech	2GE1442	May-23
ORP	237.7	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.17	%	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: 0739	
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	992.10	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1541	
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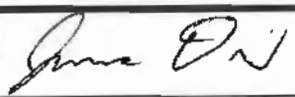
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	991.18	µS/cm	±5%				Ricca	4207N97	Jul-24
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 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: 5/11/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lane</u>				Location: <u>Duck Creek</u>					
Weather: <u>69° sunny</u>				Environment: <u>Dry</u>					
Multiparameter Water Meter		Make: <u>Hanna</u>	Model: <u>V-5000</u>	Serial Number: <u>PW264503</u>					
Water Level Meter		Make: <u>Hanna</u>	Model: <u>Water Tape</u>	Serial Number: <u>3717-1</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.94</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>10.00</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2.020</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Geotech	2GE1442	May-23
ORP	<u>230</u>	mV	±15 mV	<u>P</u>	<u>NA</u>	<u>NA</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.10</u>	%	97-100%	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.20</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: <u>09:41</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24	
SC 1000	<u>1.010</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: <u>NA</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.88</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1.040</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.50</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: <u>16:04</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
7.00a	<u>7.04</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
10.00a	<u>10.88</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1.040</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.50</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Comments: <u>NA</u>									
Signature: <u>[Signature]</u>					Date: <u>5-11-23</u>				

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>			Location: <u>Duck Creek</u>		
Weather: <u>69-80° wind 9-10 mph</u>			Environment: <u>Gravel Road</u>		
Multiparameter Water Meter	Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>Y29 KJ9HA</u>		
Water Level Meter	Make: <u>Solinst</u>	Model: <u>101</u>	Serial Number: <u>P7/LM2</u>		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	M082-04	3/25/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0-25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	2GE1442	May-23
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.1</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	Pace Labs	N/A (DI)	N/A (DI)	

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>955</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1615</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	L343-07	12/9/2023
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	M082-04	3/25/2024
SC 1000	<u>990</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>Joseph R Reed</u>	Date: <u>5/11/23</u>
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Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

October 19, 2023

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,

A handwritten signature in cursive script, appearing to read "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GG03019

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



Work Order GG04129

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



Work Order GG04417

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



Work Order GG04630

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



ANALYTICAL RESULTS

Sample: GG03019-01
Name: G04S
Matrix: Ground Water - Grab

Sampled: 07/18/23 13:38
Received: 07/18/23 17:16

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	17	mg/L	Q4	07/19/23 18:54	5	5.0	07/19/23 18:54	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/19/23 17:56	1	0.250	07/19/23 17:56	CRD	EPA 300.0 REV 2.1
Sulfate	250	mg/L	Q4	07/19/23 19:13	50	50	07/19/23 19:13	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	18.24	Feet		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Dissolved oxygen, Field	4.6	mg/L		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Oxidation Reduction Potential	120	mV		07/18/23 13:38	1	-500	07/18/23 13:38	FIELD	Field*
pH, Field Measured	7.15	pH Units		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	890.0	umhos/cm		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Temperature, Field Measured	60.1	°F		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Temperature, Field Measured	15.6	°C		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Turbidity, Field Measured	66.8	NTU		07/18/23 13:38	1	0.00	07/18/23 13:38	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO3	300	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	780	mg/L		07/21/23 09:53	1	26	07/21/23 11:16	MKH	SM 2540C
<u>Total Metals - PIA</u>									
Boron	18	ug/L		07/19/23 09:56	5	10	07/21/23 11:38	JMW	EPA 6020A
Calcium	140	mg/L	Q4	07/19/23 09:56	5	0.20	07/20/23 14:03	JMW	EPA 6020A
Magnesium	61	mg/L	Q4	07/19/23 09:56	5	0.10	07/20/23 14:03	JMW	EPA 6020A
Potassium	0.63	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:03	JMW	EPA 6020A
Sodium	9.6	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:03	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03019-02
Name: G04S DUP
Matrix: Ground Water - Field Duplicate

Sampled: 07/18/23 13:38
Received: 07/18/23 17:16

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	17	mg/L		07/19/23 19:52	5	5.0	07/19/23 19:52	CRD	EPA 300.0 REV 2.1
Fluoride	0.258	mg/L		07/19/23 19:33	1	0.250	07/19/23 19:33	CRD	EPA 300.0 REV 2.1
Sulfate	240	mg/L		07/19/23 20:11	50	50	07/19/23 20:11	CRD	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	18.24	Feet		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Dissolved oxygen, Field	4.6	mg/L		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Oxidation Reduction Potential	120	mV		07/18/23 13:38	1	-500	07/18/23 13:38	FIELD	Field*
pH, Field Measured	7.15	pH Units		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	890.0	umhos/cm		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Temperature, Field Measured	60.1	°F		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Temperature, Field Measured	15.6	°C		07/18/23 13:38	1		07/18/23 13:38	FIELD	Field*
Turbidity, Field Measured	66.8	NTU		07/18/23 13:38	1	0.00	07/18/23 13:38	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	300	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	730	mg/L		07/21/23 09:53	1	26	07/21/23 11:16	MKH	SM 2540C
<u>Total Metals - PIA</u>									
Boron	18	ug/L		07/19/23 09:56	5	10	07/21/23 11:42	JMW	EPA 6020A
Calcium	160	mg/L		07/19/23 09:56	5	0.20	07/20/23 14:07	JMW	EPA 6020A
Magnesium	68	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:07	JMW	EPA 6020A
Potassium	0.79	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:07	JMW	EPA 6020A
Sodium	11	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:07	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GG03019-05
Name: G06S
Matrix: Ground Water - Grab

Sampled: 07/18/23 15:21
Received: 07/18/23 17:16

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	5.9	mg/L		07/19/23 20:31	1	1.0	07/19/23 20:31	CRD	EPA 300.0 REV 2.1
Fluoride	0.291	mg/L		07/19/23 20:31	1	0.250	07/19/23 20:31	CRD	EPA 300.0 REV 2.1
Sulfate	140	mg/L		07/19/23 21:48	25	25	07/19/23 21:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.94	Feet		07/18/23 15:21	1		07/18/23 15:21	FIELD	Field*
Dissolved oxygen, Field	3.0	mg/L		07/18/23 15:21	1		07/18/23 15:21	FIELD	Field*
Oxidation Reduction Potential	156	mV		07/18/23 15:21	1	-500	07/18/23 15:21	FIELD	Field*
pH, Field Measured	7.05	pH Units		07/18/23 15:21	1		07/18/23 15:21	FIELD	Field*
Specific Conductance, Field Measured	963.0	umhos/cm		07/18/23 15:21	1		07/18/23 15:21	FIELD	Field*
Temperature, Field Measured	18.6	°C		07/18/23 15:21	1		07/18/23 15:21	FIELD	Field*
Temperature, Field Measured	65.5	°F		07/18/23 15:21	1		07/18/23 15:21	FIELD	Field*
Turbidity, Field Measured	8240	NTU		07/18/23 15:21	1	0.00	07/18/23 15:21	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	400	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		07/20/23 09:16	1	10	07/20/23 09:16	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	670	mg/L		07/21/23 09:53	1	26	07/21/23 11:16	MKH	SM 2540C
Total Metals - PIA									
Boron	65	ug/L		07/19/23 09:56	5	10	07/21/23 11:45	JMW	EPA 6020A
Calcium	400	mg/L		07/19/23 09:56	5	0.20	07/20/23 14:11	JMW	EPA 6020A
Magnesium	210	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:11	JMW	EPA 6020A
Potassium	12	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:11	JMW	EPA 6020A
Sodium	8.4	mg/L		07/19/23 09:56	5	0.10	07/20/23 14:11	JMW	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04129-05
Name: G12S
Matrix: Ground Water - Grab

Sampled: 07/24/23 13:35
Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	19	mg/L		07/26/23 06:26	10	10	07/26/23 06:26	TMS	EPA 300.0 REV 2.1
Fluoride	0.362	mg/L		07/26/23 06:06	1	0.250	07/26/23 06:06	TMS	EPA 300.0 REV 2.1
Sulfate	100	mg/L		07/26/23 20:12	25	25	07/26/23 20:12	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.06	Feet		07/24/23 13:35	1		07/24/23 13:35	JD	Field*
Dissolved oxygen, Field	3.3	mg/L		07/24/23 13:35	1		07/24/23 13:35	JD	Field*
Oxidation Reduction Potential	-58.9	mV		07/24/23 13:35	1	-500	07/24/23 13:35	JD	Field*
pH, Field Measured	7.43	pH Units		07/24/23 13:35	1		07/24/23 13:35	JD	Field*
Specific Conductance, Field Measured	665.0	umhos/cm		07/24/23 13:35	1		07/24/23 13:35	JD	Field*
Temperature, Field Measured	16.9	°C		07/24/23 13:35	1		07/24/23 13:35	JD	Field*
Temperature, Field Measured	62.5	°F		07/24/23 13:35	1		07/24/23 13:35	JD	Field*
Turbidity, Field Measured	65.3	NTU		07/24/23 13:35	1	0.00	07/24/23 13:35	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	240	mg/L		08/04/23 09:45	1	10	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		08/04/23 09:45	1	10	08/04/23 09:45	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	470	mg/L		07/28/23 10:45	1	26	07/28/23 14:16	MKH	SM 2540C
Total Metals - PIA									
Boron	17	ug/L		07/26/23 08:54	5	10	07/28/23 15:29	TJJ	EPA 6020A
Calcium	67	mg/L		07/26/23 08:54	5	0.20	08/01/23 13:48	wjm	EPA 6020A
Magnesium	37	mg/L		07/26/23 08:54	5	0.10	08/01/23 13:48	wjm	EPA 6020A
Potassium	0.34	mg/L		07/26/23 08:54	5	0.10	08/01/23 13:48	wjm	EPA 6020A
Sodium	5.7	mg/L		07/26/23 08:54	5	0.10	08/01/23 13:48	wjm	EPA 6020A



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ANALYTICAL RESULTS

Sample: GG04129-08
Name: G09S
Matrix: Ground Water - Grab

Sampled: 07/24/23 11:21
Received: 07/24/23 17:42

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	18	mg/L		07/26/23 07:04	10	10	07/26/23 07:04	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/26/23 06:45	1	0.250	07/26/23 06:45	TMS	EPA 300.0 REV 2.1
Sulfate	52	mg/L		07/26/23 07:04	10	10	07/26/23 07:04	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.86	Feet		07/24/23 11:21	1		07/24/23 11:21	JD	Field*
Dissolved oxygen, Field	0.83	mg/L		07/24/23 11:21	1		07/24/23 11:21	JD	Field*
Oxidation Reduction Potential	36.8	mV		07/24/23 11:21	1	-500	07/24/23 11:21	JD	Field*
pH, Field Measured	6.84	pH Units		07/24/23 11:21	1		07/24/23 11:21	JD	Field*
Specific Conductance, Field Measured	819.4	umhos/cm		07/24/23 11:21	1		07/24/23 11:21	JD	Field*
Temperature, Field Measured	15.8	°C		07/24/23 11:21	1		07/24/23 11:21	JD	Field*
Temperature, Field Measured	60.5	°F		07/24/23 11:21	1		07/24/23 11:21	JD	Field*
Turbidity, Field Measured	694	NTU		07/24/23 11:21	1	0.00	07/24/23 11:21	JD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	390	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	520	mg/L		07/28/23 10:45	1	26	07/28/23 14:16	MKH	SM 2540C
Total Metals - PIA									
Boron	22	ug/L		07/26/23 08:54	5	10	07/28/23 14:39	TJJ	EPA 6020A
Calcium	100	mg/L		07/26/23 08:54	5	0.20	08/01/23 12:17	wjm	EPA 6020A
Magnesium	58	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:17	wjm	EPA 6020A
Potassium	1.5	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:17	wjm	EPA 6020A
Sodium	11	mg/L		07/26/23 08:54	5	0.10	08/01/23 12:17	wjm	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04417-08
Name: G15S
Matrix: Ground Water - Grab

Sampled: 07/25/23 10:31
Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
<u>Anions - PIA</u>									
Chloride	12	mg/L		07/27/23 06:21	10	10	07/27/23 06:21	TMS	EPA 300.0 REV 2.1
Fluoride	0.330	mg/L		07/27/23 06:01	1	0.250	07/27/23 06:01	TMS	EPA 300.0 REV 2.1
Sulfate	43	mg/L		07/27/23 06:21	10	10	07/27/23 06:21	TMS	EPA 300.0 REV 2.1
<u>Field - PIA</u>									
Depth, From Measuring Point	31.75	Feet		07/25/23 10:31	1		07/25/23 10:31	FIELD	Field*
Dissolved oxygen, Field	3.2	mg/L		07/25/23 10:31	1		07/25/23 10:31	FIELD	Field*
Oxidation Reduction Potential	249	mV		07/25/23 10:31	1	-500	07/25/23 10:31	FIELD	Field*
pH, Field Measured	6.17	pH Units		07/25/23 10:31	1		07/25/23 10:31	FIELD	Field*
Specific Conductance, Field Measured	756.0	umhos/cm		07/25/23 10:31	1		07/25/23 10:31	FIELD	Field*
Temperature, Field Measured	19.5	°C		07/25/23 10:31	1		07/25/23 10:31	FIELD	Field*
Temperature, Field Measured	67.1	°F		07/25/23 10:31	1		07/25/23 10:31	FIELD	Field*
Turbidity, Field Measured	123	NTU		07/25/23 10:31	1	0.00	07/25/23 10:31	FIELD	Field*
<u>General Chemistry - PIA</u>									
Alkalinity - bicarbonate as CaCO ₃	340	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
<u>Soluble General Chemistry - PIA</u>									
Solids - total dissolved solids (TDS)	480	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
<u>Total Metals - PIA</u>									
Boron	< 10	ug/L		07/27/23 09:21	5	10	08/09/23 16:39	TJJ	EPA 6020A
Calcium	93	mg/L		07/27/23 09:21	5	0.20	08/07/23 16:40	TJJ	EPA 6020A
Magnesium	47	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:40	TJJ	EPA 6020A
Potassium	0.39	mg/L		07/27/23 09:21	5	0.10	08/07/23 16:40	TJJ	EPA 6020A
Sodium	12	mg/L		07/27/23 09:21	5	0.10	08/08/23 17:24	TJJ	EPA 6020A



ANALYTICAL RESULTS

Sample: GG04417-13
Name: G02S
Matrix: Ground Water - Grab

Sampled: 07/25/23 14:35
Received: 07/25/23 17:45

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.6	mg/L		07/26/23 15:50	1	1.0	07/26/23 15:50	TMS	EPA 300.0 REV 2.1
Fluoride	0.397	mg/L		07/26/23 15:50	1	0.250	07/26/23 15:50	TMS	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		07/26/23 15:50	1	1.0	07/26/23 15:50	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.47	Feet		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Dissolved oxygen, Field	0.070	mg/L		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Oxidation Reduction Potential	-127	mV		07/25/23 14:35	1	-500	07/25/23 14:35	FIELD	Field*
pH, Field Measured	6.57	pH Units		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Specific Conductance, Field Measured	571.4	umhos/cm		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Temperature, Field Measured	61.8	°F		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Temperature, Field Measured	16.6	°C		07/25/23 14:35	1		07/25/23 14:35	FIELD	Field*
Turbidity, Field Measured	1.17	NTU		07/25/23 14:35	1	0.00	07/25/23 14:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	440	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 2.0	mg/L		08/04/23 09:45	1	2.0	08/04/23 09:45	CPS	SM 2320B 1997*
Soluble Anions - PIA									
Sulfate, Dissolved	< 1.0	mg/L		07/26/23 22:56	1	1.0	07/26/23 22:56	TMS	EPA 300.0 REV 2.1
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		08/01/23 09:40	1	26	08/01/23 11:00	MKH	SM 2540C
Total Metals - PIA									
Boron	37	ug/L		07/27/23 09:21	5	10	08/09/23 16:50	TJJ	EPA 6020A
Calcium	100	mg/L		07/27/23 09:21	5	0.20	08/07/23 17:03	TJJ	EPA 6020A
Magnesium	38	mg/L		07/27/23 09:21	5	0.10	08/07/23 17:03	TJJ	EPA 6020A
Potassium	0.80	mg/L		07/27/23 09:21	5	0.10	08/07/23 17:03	TJJ	EPA 6020A
Sodium	14	mg/L		07/27/23 09:21	5	0.10	08/08/23 17:40	TJJ	EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B338951 - SW 3015 - EPA 6020A</u>									
Blank (B338951-BLK1)				Prepared: 07/19/23 Analyzed: 07/21/23					
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 (B338951-BS1)				Prepared: 07/19/23 Analyzed: 07/21/23					
Boron	547	ug/L		555.6		98	80-120		
Calcium	6.12	mg/L		5.556		110	80-120		
Magnesium	6.29	mg/L		5.556		113	80-120		
Potassium	6.08	mg/L		5.556		109	80-120		
Sodium	6.39	mg/L		5.556		115	80-120		
Matrix Spike (B338951-MS1)				Sample: GG03019-01		Prepared: 07/19/23 Analyzed: 07/21/23			
Boron	555	ug/L		555.6	18.3	97	75-125		
Calcium	138	mg/L	Q4	5.556	140	NR	75-125		
Magnesium	64.0	mg/L	Q4	5.556	61.2	50	75-125		
Potassium	6.41	mg/L		5.556	0.626	104	75-125		
Sodium	15.3	mg/L		5.556	9.64	102	75-125		
Matrix Spike Dup (B338951-MSD1)				Sample: GG03019-01		Prepared: 07/19/23 Analyzed: 07/21/23			
Boron	559	ug/L		555.6	18.3	97	75-125	0.7	20
Calcium	142	mg/L	Q4	5.556	140	46	75-125	3	20
Magnesium	66.5	mg/L	Q4	5.556	61.2	96	75-125	4	20
Potassium	6.61	mg/L		5.556	0.626	108	75-125	3	20
Sodium	15.9	mg/L		5.556	9.64	114	75-125	4	20
<u>Batch B339127 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B339127-MS1)				Sample: GG03019-01		Prepared & Analyzed: 07/19/23			
Fluoride	1.68	mg/L		1.500	0.249	95	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	17	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	250	NR	80-120		
Matrix Spike Dup (B339127-MSD1)				Sample: GG03019-01		Prepared & Analyzed: 07/19/23			
Sulfate	1.00E9	mg/L	Q4	1.500	250	NR	80-120	0	20
Fluoride	1.72	mg/L		1.500	0.249	98	80-120	2	20
Chloride	1.0E9	mg/L	Q4	1.500	17	NR	80-120	0	20
<u>Batch B339129 - No Prep - SM 2320B 1997</u>									
Duplicate (B339129-DUP3)				Sample: GG03019-01		Prepared & Analyzed: 07/20/23			
Alkalinity - bicarbonate as CaCO ₃	312	mg/L			300			4	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
<u>Batch B339216 - No Prep - SM 2540C</u>									
Blank (B339216-BLK1)				Prepared & Analyzed: 07/21/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339216-BS1)				Prepared & Analyzed: 07/21/23					
Solids - total dissolved solids (TDS)	977	mg/L		1000		98	84.9-109		



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B339216-DUP1) Sample: GG03019-01 Prepared & Analyzed: 07/21/23									
Solids - total dissolved solids (TDS)	760	mg/L			775			2	5
Duplicate (B339216-DUP2) Sample: GG03019-11 Prepared & Analyzed: 07/21/23									
Solids - total dissolved solids (TDS)	610	mg/L			625			2	5
<u>Batch B339564 - SW 3015 - EPA 6020A</u>									
Blank (B339564-BLK1) Prepared: 07/26/23 Analyzed: 07/28/23									
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 (B339564-BS1) Prepared: 07/26/23 Analyzed: 07/28/23									
Boron	663	ug/L		555.6		119	80-120		
Calcium	5.11	mg/L		5.556		92	80-120		
Magnesium	5.77	mg/L		5.556		104	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Sodium	5.34	mg/L		5.556		96	80-120		
Matrix Spike (B339564-MS1) Sample: GG04129-01 Prepared: 07/26/23 Analyzed: 07/28/23									
Boron	23800	ug/L	Q4	555.6	23500	68	75-125		
Calcium	212	mg/L	Q4	5.556	211	22	75-125		
Magnesium	102	mg/L	Q4	5.556	98.9	53	75-125		
Potassium	12.9	mg/L		5.556	7.69	94	75-125		
Sodium	173	mg/L	Q4	5.556	173	6	75-125		
Matrix Spike Dup (B339564-MSD1) Sample: GG04129-01 Prepared: 07/26/23 Analyzed: 07/28/23									
Boron	24200	ug/L	Q4	555.6	23500	129	75-125	1	20
Calcium	211	mg/L	Q4	5.556	211	NR	75-125	0.6	20
Magnesium	101	mg/L	Q4	5.556	98.9	42	75-125	0.6	20
Potassium	12.8	mg/L		5.556	7.69	93	75-125	0.6	20
Sodium	173	mg/L	Q4	5.556	173	NR	75-125	0.3	20
<u>Batch B339593 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B339593-MS1) Sample: GG04129-01 Prepared & Analyzed: 07/25/23									
Sulfate	1.00E9	mg/L	Q4	1.500	391	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	330	NR	80-120		
Matrix Spike (B339593-MS2) Sample: GG04129-11 Prepared & Analyzed: 07/25/23									
Sulfate	1.00E9	mg/L	Q4	1.500	150	NR	80-120		
Fluoride	1.85	mg/L		1.500	0.230	108	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120		
Matrix Spike Dup (B339593-MSD1) Sample: GG04129-01 Prepared & Analyzed: 07/25/23									
Sulfate	1.00E9	mg/L	Q4	1.500	391	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	330	NR	80-120	0	20
Matrix Spike Dup (B339593-MSD2) Sample: GG04129-11 Prepared & Analyzed: 07/25/23									
Sulfate	1.00E9	mg/L	Q4	1.500	150	NR	80-120	0	20
Fluoride	1.85	mg/L		1.500	0.230	108	80-120	0.04	20
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120	0	20

Batch B339705 - SW 3015 - EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B339705-BLK1)				Prepared: 07/27/23 Analyzed: 08/09/23					
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 (B339705-BS1)				Prepared: 07/27/23 Analyzed: 08/09/23					
Boron	526	ug/L		555.6		95	80-120		
Calcium	5.59	mg/L		5.556		101	80-120		
Magnesium	5.81	mg/L		5.556		105	80-120		
Potassium	6.05	mg/L		5.556		109	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Matrix Spike (B339705-MS1)				Sample: GG04417-01		Prepared: 07/27/23 Analyzed: 08/09/23			
Boron	826	ug/L	Q1	555.6	472	64	75-125		
Calcium	290	mg/L	Q4	5.556	289	18	75-125		
Magnesium	189	mg/L	Q4	5.556	179	173	75-125		
Potassium	30.8	mg/L		5.556	24.5	113	75-125		
Sodium	10.7	mg/L		5.556	5.57	93	75-125		
Matrix Spike Dup (B339705-MSD1)				Sample: GG04417-01		Prepared: 07/27/23 Analyzed: 08/09/23			
Boron	770	ug/L	Q2	555.6	472	54	75-125	7	20
Calcium	285	mg/L	Q4	5.556	289	NR	75-125	2	20
Magnesium	191	mg/L	Q4	5.556	179	205	75-125	0.9	20
Potassium	31.3	mg/L		5.556	24.5	123	75-125	2	20
Sodium	10.6	mg/L		5.556	5.57	90	75-125	1	20
<u>Batch B339730 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B339730-MS1)				Sample: GG04417-01		Prepared & Analyzed: 07/26/23			
Chloride	4.5	mg/L		1.500	2.8	115	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	80-120		
Matrix Spike Dup (B339730-MSD1)				Sample: GG04417-01		Prepared & Analyzed: 07/26/23			
Chloride	4.4	mg/L		1.500	2.8	113	80-120	0.9	20
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	80-120	0	20
<u>Batch B339731 - IC No Prep - EPA 300.0 REV 2.1</u>									
Matrix Spike (B339731-MS1)				Sample: GG04417-01		Prepared & Analyzed: 07/26/23			
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	80-120		
Matrix Spike Dup (B339731-MSD1)				Sample: GG04417-01		Prepared & Analyzed: 07/26/23			
Sulfate	1.00E9	mg/L	Q4	1.500	347	NR	80-120	0	20
<u>Batch B339834 - No Prep - SM 2540C</u>									
Blank (B339834-BLK1)				Prepared & Analyzed: 07/28/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339834-BS1)				Prepared & Analyzed: 07/28/23					
Solids - total dissolved solids (TDS)	963	mg/L		1000		96	84.9-109		
Duplicate (B339834-DUP1)				Sample: GG04129-01		Prepared & Analyzed: 07/28/23			
Solids - total dissolved solids (TDS)	1760	mg/L			1840			4	5
Duplicate (B339834-DUP2)				Sample: GG04129-11		Prepared & Analyzed: 07/28/23			
Solids - total dissolved solids (TDS)	630	mg/L			635			0.8	5



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B339934 - No Prep - SM 2540C</u>									
Blank (B339934-BLK1)	Prepared & Analyzed: 08/01/23								
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B339934-BS1)	Prepared & Analyzed: 08/01/23								
Solids - total dissolved solids (TDS)	993	mg/L		1000		99	84.9-109		
Duplicate (B339934-DUP1)	Sample: GG04417-01	Prepared & Analyzed: 08/01/23							
Solids - total dissolved solids (TDS)	980	mg/L			960			2	5
Duplicate (B339934-DUP2)	Sample: GG04417-11	Prepared & Analyzed: 08/01/23							
Solids - total dissolved solids (TDS)	785	mg/L	M		810			3	5
<u>Batch B340448 - No Prep - SM 2320B 1997</u>									
Duplicate (B340448-DUP1)	Sample: GG04129-01	Prepared & Analyzed: 08/04/23							
Alkalinity - bicarbonate as CaCO ₃	525	mg/L			525			0	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340448-DUP2)	Sample: GG04129-11	Prepared & Analyzed: 08/04/23							
Alkalinity - bicarbonate as CaCO ₃	400	mg/L			388			3	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340448-DUP3)	Sample: GG04129-14	Prepared & Analyzed: 08/04/23							
Alkalinity - bicarbonate as CaCO ₃	500	mg/L			488			3	10
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Duplicate (B340448-DUP4)	Sample: GG04417-01	Prepared & Analyzed: 08/04/23							
Alkalinity - carbonate as CaCO ₃	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO ₃	400	mg/L			362			10	10



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

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.
- 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



SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01C	DC-BA01!C	205	BAB	7/17/23	1428	14.90		KL
BA01L	DC-BA01!L	205	BAB		1425	15.29		KL
G02L	DC-G02!L	204	LF		0941	12.22		SD
G02D	DC-G02&D	204	LF		0944	22.04	TD = 68.48'	SD
G03L	DC-G03!L	204	LF		0934	8.68	TD = 26.80'	SD
G03S	DC-G03#S	204	LF		0929	8.33		SD
G04L	DC-G04!L	204	LF		1327	15.42	dry	NW
G04S	DC-G04#S	204	LF		1329	18.27		NW
G06L	DC-G06!L	204	LF		1232	21.80		SD
G06S	DC-G06#S	204	LF		1230	22.02		SD
G07L	DC-G07!L	204	LF		1222	21.12		SD
G08L	DC-G08!L	204	LF		1216	20.68		SD
G09L	DC-G09!L	204	LF		1207	20.75		SD
G09S	DC-G09#S	204	LF		1216	20.63		SD
G12L	DC-G12!L	204	LF		1139	21.67		SD
G12S	DC-G12#S	204	LF		1141	22.72		SD
G14L	DC-G14!L	204	LF		1106	24.02	TD = 26.86	SD
G15L	DC-G15!L	204	LF		1050	30.85		SD
G15S	DC-G15#S	204	LF		1047	31.19		SD
G16L	DC-G16!L	204	LF		1042	29.41		SD
G50L	DC-G50!L	203	GMF		1036	12.52		KL
G51L	DC-G51!L	203	GMF		1522	15.75		SD
G52L	DC-G52!L	203	GMF		1515	26.38		SD

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G52S	DC-G52#S	203	GMF	7/17/23	15:16	31.00		JD
G53L	DC-G53!L	203	GMF		11:56	11.98		KL
G53S	DC-G53#S	203	GMF		11:59	13.70		KL
G55L	DC-G55!L	203	GMF		15:32	19.38		JD
G55S	DC-G55#S	203	GMF		15:31	19.18		JD
G56L	DC-G56!L	203	GMF		9:36	18.15	TD = 25.43	KL
G56S	DC-G56#S	203	GMF		9:33	18.55		KL
G57L	DC-G57!L	203	GMF		9:47	22.35	TD = 29.28	KL
G58L	DC-G58!L	203	GMF		9:51	26.56	TD = 33.81	KL
G58S	DC-G58#S	203	GMF		9:54	26.59		KL
G59L	DC-G59!L	203	GMF		9:57	25.54	TD = 35.32	KL
G59S	DC-G59#S	203	GMF		9:59	33.85		KL
G61S	DC-G61#S	203	GMF		10:14	19.28		KL
G62L	DC-G62!L	203	GMF		10:19	20.79	TD = 33.52	KL
G63L	DC-G63!L	203	GMF		10:22	23.60	TD = 31.02	KL
G63S	DC-G63#S	203	GMF		10:26	24.34		KL
G65L	DC-G65!L	203	GMF		12:35	18.21	TD = 25.16	NW
G65S	DC-G65#S	203	GMF		10:31	18.52		NW
G66L	DC-G66!L	203	GMF		10:45	12.35		NW
G66S	DC-G66#S	203	GMF		10:46	13.01		NW
G67L	DC-G67!L	203	GMF		10:55	11.45		NW
G67S	DC-G67#S	203	GMF		10:58	12.33		NW
G68L	DC-G68!L	203	GMF		11:41	11.97		NW

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G68S	DC-G68#S	203	GMF	7/17/23	1148	12.85		NW
G69L	DC-G69!L	203	GMF		0941	13.80	TD = 27.86	NW
G69S	DC-G69#S	203	GMF		0933	16.96		NW
G70L	DC-G70!L	203	GMF		0949	16.54		NW
G71L	DC-G71!L	203	GMF		1000	23.71	TD = 32.96	NW
G71S	DC-G71#S	203	GMF		0955	24.48		NW
G72L	DC-G72!L	203	GMF		1005	22.40	TD = 28.02	NW
G73L	DC-G73!L	203	GMF		1025	25.53		NW
L103	DC-L103	204	LF		1515	1.10		AP
OM05S	DC-OM05#S	201-202	AP1/2		1403	18.00	TD = 25.70	AP
OM08	DC-OM08	201-202	AP1/2		1348	14.85	TD = 26.94	AP
OM09	DC-OM09	201-202	AP1/2		1259	4.18		AP
OM10	DC-OM10	201-202	AP1/2		1100	-	not safe to access	AP
OM15	DC-OM15	201-202	AP1/2		1437	21.60	TD = 51.17	AP
OM22S	DC-OM22#S	201-202	AP1/2		1057	41.79 19.31		BG
OM23S	DC-OM23#S	201-202	AP1/2		1235	57.95 41.79	TD = 46.10	AP
OM25D	DC-OM25&D	201-202	AP1/2		1317	48.62 57.95	TD = 77.39	AP
OR03S	DC-OR03#S	201-202	AP1/2		1045	21.65 48.62		BG
OR05D	DC-OR05&D	201-202	AP1/2		1400	16. 21.65	TD = 49.74	AP
OR14S	DC-OR14#S	201-202	AP1/2		1337	35 7.17 6.82	TD = 24.33	AP
OR18	DC-OR18	201-202	AP1/2		0943	17.32	TD = 53.10	AP
P01L	DC-P01!L	204	LF		0951	10.38	TD = 23.35'	JD
P01S	DC-P01#S	204	LF		0954	10.13	TD = 29.71'	JD

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P01I	DC-P01\$I	204	LF	7/17/23	1005	10.05	TD = 46.95	JD
P02S	DC-P02#S	204	LF		1523	14.89	TD = 91.94	JD
P04S	DC-P04#S	204	LF		1329	18.27		JD
P05L	DC-P05!L	204	LF		1335	3.11	TD = 14.92'	JD
P05S	DC-P05#S	204	LF		1337	3.28		JD
P05D	DC-P05&D	204	LF		1339	6.30	TD = 46.10'	JD
P36L	DC-P36!L	204	LF		1306 1024	6.96 11.17	TD = 15.09' to 7/17/23	JD
P36S	DC-P36#S	204	LF		1302	11.33	TD = 31.43'	JD
P36D	DC-P36&D	204	LF		1310	11.57	TD = 51.38	JD
P37L	DC-P37!L	204	LF		1203	13.64		JD
P37D	DC-P37&D	204	LF		1306	15.59		KL
P38L	DC-P38!L	204	LF		1059	17.95	TD = 19.75	JD
P38S	DC-P38#S	204	LF		1057	17.30	TD = 31.42'	JD
P39L	DC-P39!L	204	LF		1024	6.96	TD = 15.09'	JD
P39S	DC-P39#S	204	LF		1031	7.14	TD = 26.25'	JD
P39D	DC-P39&D	204	LF		1028	13.75	TD = 43.58'	JD
P40L	DC-P40!L	204	LF		1359	10.28	TD = 20.44'	JD
P40S	DC-P40#S	204	LF		1401	9.54	TD = 35.42'	JD
P41L	DC-P41!L	204	LF		1117	6.90	TD = 12.00'	JD
P41S	DC-P41#S	204	LF		1119	9.51		KL
P41D	DC-P41&D	204	LF		1123	35.40		KL
P42L	DC-P42!L	204	LF		1216	5.88	TD = 24.30 well is knocked over	NW
P42S	DC-P42#S	204	LF		1218	5.93	TD = 31.47	NW

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P42I1	DC-P42\$I1	204	LF	7/17/23	1536	6.02	TD = 42.22	KL
P42I2	DC-P42\$I2	204	LF		1534	32.42	TD = 57.30	KL
P42D	DC-P42&D	204	LF		1221	37.62	TD = 77.07	NW
P52	DC-P52	203	GMF		1514	14.82	TD = 28.26	KL
P57L	DC-P57!L	203	GMF		1517	22.32	TD = 29.27	KL
P57S	DC-P57#S	203	GMF		1520	22.08		KL
P60	DC-P60	203	GMF		1010	24.54	TD = 37.30	KL
P61	DC-P61	203	GMF		1053	10.00	TD = 21.53	KL
P62	DC-P62	203	GMF		1050	10.55	TD = 19.11	KL
P63	DC-P63	203	GMF		1048	14.17	TD = 20.46	KL
P64	DC-P64	203	GMF		1103	14.71	TD = 18.92	KL
R10L	DC-R10!L	204	LF		1154	21.93	27.45' = TD	JD
R11L	DC-R11!L	204	LF		1145	21.37	26.89' = TD ^{5-6 ft} bottom	JD
R13L	DC-R13!L	204	LF		1131	21.10	29.88' = TD	JD
R61L	DC-R61!L	203	GMF		1528	19.00	31.45' = TD	KL
R72S	DC-R72#S	203	GMF		1010	22.26	TD = 37.77	NW
T43L	DC-T43!L	204	LF		1238	6.69		JD
T44L	DC-T44!L	204	LF		1243	11.00		JD
T45L	DC-T45!L	204	LF		1246	8.96		JD
T46L	DC-T46!L	204	LF		1258	7.00		JD
X301	DC-X301-leachate	203	GMF		NA	NA	NA	
XTPW02	DC-XTPW02-pore	203	GMF		1530	6.99	Dry	AP

U:6/19/23 GKJ

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
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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-23Q3 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 Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)		
BA01	DC-BA01	205	BAB	7/24/23	1105	15.79	21615533	yes	174.21	Y	M		KL
BA02	DC-BA02	205	BAB	7/25/23	1111	12.02	21615636	yes	506.	Y	H	batteries replaced	JR
BA02L	DC-BA02IL	205	BAB	7/24	1056	Dry	21615682	yes	173.38	Y	H		KL
BA03	DC-BA03	205	BAB	7/31/23	1340	10.48	21615637	yes	578.34	Y	H		JR
BA03L	DC-BA03IL	205	BAB	7/24	1009	Dry	21615687	yes	173.24	Y	M		KL
BA04	DC-BA04	205	BAB	7/24/23	1249	6.99	21615631	yes	573.67	Y	H		JR
BA05	DC-BA05#	205	BAB	7/31/23	1332	21.36	21615540	yes	572.81	Y	H		JR
BA06	DC-BA06	205	BAB	7/24/23	1534	25.04	21615525	yes	173.93	Y	H		KL
G02S	DC-G02#S	204	LF	7/25/23	1316	10.47	21615554	yes	611.07	Y	M		JR
G50S	DC-G50#S	203	GMF	7/27	1314	15.44	21615535	yes	185.41	Y	H		KL
G51S	DC-G51#S	203	GMF	7/31	1332	15.33	21615691	yes	183.18	Y	H		KL
G54L	DC-G54IL	203	GMF	7/31	1341	22.37	21615690	yes	183.09	Y	H		KL
G54S	DC-G54#S	203	GMF	7/31	1337	23.56	21615684	yes	182.72	Y	H		KL
G57S	DC-G57#S	203	GMF	7/31	1347	22.26	21615683	yes	182.88	Y	H		KL
G60L	DC-G60IL	203	GMF	7/31	1354	12.20	21615678	yes	183.39	Y	H		KL
G60S	DC-G60#S	203	GMF	7/31	1351	24.63	21615677	yes	179.73	Y	H		KL
G64L	DC-G64IL	203	GMF	7/31	1358	22.83	21615688	yes	190.29	Y	H		KL
G64S	DC-G64#S	203	GMF	7/25/23	1504	24.18	21615632	yes	600.32	Y	H		JR

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-23Q3 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 Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)		
OM01	DC-OM01	201-AP1/ 202 2	AP1/	7/20/23	10:19	12.06	21615685	yes	583.4573	yes	H	TD-22.83	App
OM04S	DC-OM04#S	201-AP1/ 202 2	AP1/	7/25/23	10:50	20.00	21615542	yes	587.37	yes	H	TD-35.88	JD
OM07	DC-DM07	201-AP1/ 202 2	AP1/	7/26/23	10:45	12.41	21615541	yes	584.12	yes	H	TD-29.97	JD
OM12	DC-OM12	201-AP1/ 202 2	AP1/	7/27/23	15:11	17.34	21615527	yes	176.17	yes	H		KU
OM16	DC-OM16	201-AP1/ 202 2	AP1/	7/24/23	11:30	24.50	21615539	yes	580.61	yes	H	TD-43.60	SD
OM17	DC-OM17	201-AP1/ 202 2	AP1/	7/24/23	13:30	13.66	21615693	yes	---	yes	H	replaced battery	SD
OM21	DC-OM21	201-AP1/ 202 2	AP1/	7/19/23	15:27	10.80	21615593	yes	11.3153	yes	H	TD-60.57	App
OM22D	DC-OM22&D	201-AP1/ 202 2	AP1/	7/19/23	11:05	18.85	21615592	yes	580.0543	yes	H	TD-65.074	App
OM23D	DC-OM23&D	201-AP1/ 202 2	AP1/	7/27/23	12:22	38.54	21615591	yes	39.76	yes	M		JR
OM24D	DC-OM24&D	201-AP1/ 202 2	AP1/	7/27/23	12:30	41.90	21615522	yes	broken	NO	---	broken/called Informal Station	JR
OM25S	DC-OM25#S	201-AP1/ 202 2	AP1/	7/26/23	12:51	57.96	21615681	yes	570.79	yes	H		JD
OR02	DC-OR02	201-AP1/ 202 2	AP1/	7/20/23	12:42	6.19	21615679	yes	595.0210	yes	H	TD-22.28	App
OR03D	DC-OR03&D	201-AP1/ 202 2	AP1/	7/10/23	14:10	44.44	21615577	yes	583.1447	yes	H	TD	App
OR04D	DC-OR04&D	201-AP1/ 202 2	AP1/	7/25/23	10:47	21.21	21615570	yes	586.37	yes	H	TD-68.01	JD
OR06A	DC-OR06/A	201-AP1/ 202 2	AP1/	7/26/23	12:02	14.07	21615692	yes	581.23	yes	H	TD-25.65	JD
OR11	DC-OR11	201-AP1/ 202 2	AP1/	7/25/23	10:00	31.84	21615686	yes	564.59	yes	H	TD-46.03	JD
OR13S	DC-OR13#S	201-AP1/ 202 2	AP1/	7/31/23	13:55		21615676	yes	588.75	yes	M		JR
OR13D	DC-OR13&D	201-AP1/ 202 2	AP1/	7/26/23	7:42		21564135	yes	589.15	yes	H		JR

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-23Q3 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 Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L)		
OR14D	DC-OR148D	201-202	AP1/2	7/24/23	1431	10.52	21615611	yes	588.34	x	H		
OR19	DC-OR19	201-202	AP1/2	7/31/23	1210	25.99	21615634	yes	571.76	y	H		JR
OR20	DC-OR20	201-202	AP1/2	07/24/23	0936	21.95	21615610	yes	-565.1	y	H	TD=57.55	JO

U: 6/21/23 GKJ

Duck Creek

WELL/SAMPLE POINT **G02S**

Purge Method: Bladder Pump

Date: 7/25/23 Start Time: 1325 Finish/Sample Time: 1435

Well Depth (Bottom) From MP: 1047 ft
Depth to Water From MP: 1047 ft
Water Column Length: ft
Well Water Volume: Gal / L
Min. Purge Volume: 1 Gal ☒
Total Purge Volume: 1.3 Gal ☒
Max Drawdown: ft
Total Drawdown: 1.36 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	1337	11.72	100	658	559.1	16.60	-127.8	0.07	32.6
2	1338	11.72	100	658	563.44	16.60	-129.1	0.06	15.20
3	1339	11.72	100	657	571.41	16.56	-126.9	0.07	7.17
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: AT 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)
3	<u>TOC</u>

Final DTW: 11.83 ft

Comments Ferrous Iron - Over range

Sampler's Signature: Joseph R Reed

Duck Creek

WELL/SAMPLE POINT G04S

Purge Method: Debrisless Bladder

Date: 7/18/2023 Start Time: 1233 Finish/Sample Time: 1338

Well Depth (Bottom) From MP: — ft
Min. Purge Volume: — Gal / L
Depth to Water From MP: 18.24 ft
Total Purge Volume: 1000 Gal / L (ML)
Water Column Length: — ft
Max Drawdown: — ft
Well Water Volume: — Gal / L
Total Drawdown: 0.20 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	1246	18.42	100	7.16	891	15.61	120.2	4.64	60.55
2	1248	18.42	100	7.14	888	15.50	120.1	4.66	59.52
3	1250	18.43	100	7.15	890	15.62	120.2	4.62	66.76
4									
5									
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

Well Integrity	Yes	No
Well has ID sign	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
121	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
121	General (P, 250mL) 1000mL

313

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
121	General (P, 500mL) 1000mL

Final DTW: 18.44 ft

Comments Field Duplicate Filled here

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G06S

Purge Method: Descaled Bladder

Date: 7/18/2023 Start Time: 1442 Finish/Sample Time: 1521

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

Depth to Water From MP: 21.94 ft Total Purge Volume: 1000 Gal / L me

Water Column Length: - ft Max Drawdown: - ft

Well Water Volume: - Gal / L Total Drawdown: 0.00 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	1454	21.45	100	7.07	961	18.64	156.3	3.23	7.514.8
2	1456	21.45	100	7.06	962	18.56	156.3	3.09	7.642.1
3	1458	21.45	100	7.05	963	18.60	156.3	3.04	8.239.5
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250mL) <u>1000mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL) <u>1000mL</u>

Final DTW: 21.94 ft

Comments pump can only purge ~400mL per discharge

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G09S

Purge Method: dedicated pump

Date: 7/24/23 Start Time: 10:24 Finish/Sample Time: 11:21

Well Depth (Bottom) From MP: 44.10 ft Min. Purge Volume: 1.0 Gal 0

Depth to Water From MP: 20.86 ft Total Purge Volume: 1.5 Gal 0

Water Column Length: 23.24 ft Max Drawdown: ft

Well Water Volume: 14.0 Gal 0 Total Drawdown: 1.74 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	10:44	22.15	100	6.88	808.86	15.86	10.8	1.37	1313.10
2	10:45	22.23	100	6.84	810.78	15.86	19.6	1.17	1099.6
3	10:46	22.52	100	6.84	811.56	15.77	29.2	0.90	1092.7
4	10:48	22.46	100	6.83	815.03	15.70	35.7	0.99	916.17
5	10:50	22.59	100	6.84	819.35	15.81	36.8	0.83	693.67
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250 mL) <u>1000mL</u>

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P, 500mL) <u>1000mL</u>

Final DTW: 22.00 ft

Comments

Sampler's Signature:

Nicole Welch

Duck Creek

WELL/SAMPLE POINT G12S

Purge Method: dedicated pump

Date: 7/24/23 Start Time: 12:40 Finish/Sample Time: 13:35

Well Depth (Bottom) From MP: 36.80 ft Min. Purge Volume: 1.0 Gal L

Depth to Water From MP: 23.06 ft Total Purge Volume: 1.5 Gal L

Water Column Length: 13.74 ft Max Drawdown: ft

Well Water Volume: 8.32 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	13:01	23.76	100	7.44	1015.14	110.85	-102.8	3.23	92.71
2	13:02	23.79	100	7.43	1015.73	110.77	-59.1	3.08	106.81
3	13:03	23.90	100	7.43	1014.97	110.94	-58.9	3.26	105.29
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 6000

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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250mL) 1000mL

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P, 250mL) 1000mL

Final DTW: 23.05 ft

Comments

Sampler's Signature: Nicole Welch

Duck Creek

WELL/SAMPLE POINT G15S

Purge Method: 12W-Flow

Date: 7-25-23

Start Time: 09:45

Finish/Sample Time: 10:31

Well Depth (Bottom) From MP: 44.37 ft

Min. Purge Volume: 1.0 Gal / L

Depth to Water From MP: 31.75 ft

Total Purge Volume: 1.3 Gal / L

Water Column Length: 12.62 ft

Max Drawdown: NA ft

Well Water Volume: 2.01 Gal / L

Total Drawdown: 318 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	<u>318</u> mg/L	Turb NTU
1	10:00	32.18	100	6.24	760	19.49	251	1.77	177
2	10:01	32.75	100	6.21	764	19.47	250	3.24	143
3	10:02	32.73	100	6.17	756	19.50	249	3.18	123
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,500mL)

Final DTW: 33.20 ft

Comments na

Sampler's Signature: [Signature]

Multiparameter Meter Field Calibration Checklist

Field Personnel: JD NW		Location: Vistra Duck Creek	
Weather: 73-79° cloudy wind NNW 5mph		Environment: Grass	
Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 480944
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	4.00	s.u.	±0.1 s.u.	Pass	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	10.80	µS/cm	0<25 µS/cm	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1973.3	µS/cm	±5%	I	I	I	Geotech	3GA1071	Jan-24
ORP	223.3	mV	±15 mV	I	I	I	InSitu	2G1762	Jun-23
DO (Zero pt)	0.00	mg/L	±0.1	I	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	97.95	%	97-100%	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	I	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:20			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.13	s.u.	±0.15 s.u.	Pass	N/A	Geotech	2GE870	Mar-24
pH 7.00b	10.97	s.u.	±0.15 s.u.	I	I	Geotech	2GC931	Mar-24
pH 10.00b	9.91	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24
SC 1000	980.40	µS/cm	±5%	I	I	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1546				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	Pass	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.08	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC 1000	997.20	µS/cm	±5%	I	I	I	Ricca	4207N97	Jul-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	I	I	I	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	I	I	I	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: Nicole Welch	Date: 7/18/23
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364526
Oct 23
7/21

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glenon</u>				Location: <u>Duck Creek Power Station</u>					
Weather: <u>70° Cloudy 3 mph W</u>				Environment: <u>Grass field</u>					
Multiparameter Water Meter		Make: <u>AC</u>	Model: <u>600</u>	Serial Number: <u>762193</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>200F</u>	Serial Number: <u>19FF21119248</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.91</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>5.38</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1950.5</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	3GA1071	Jan-24
ORP	<u>221.0</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.07</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.77</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>6:19</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.05</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>6.83</u>	s.u.	±0.15 s.u.	<u>F</u>	<u>N/A</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>9.85</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24	
SC 1000	<u>1012.6</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4209A12	Aug-23	

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-23
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-23
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 1 well

Signature: <u>Brendan Glenon</u>	Date: <u>7/18/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lane</u>				Location: <u>Duck Creek</u>			
Weather: <u>81° Sunny</u>				Environment: <u>DRY</u>			
Multiparameter Water Meter		Make: <u>HORBA</u>	Model: <u>u-500</u>	Serial Number: <u>PW264023</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>Water Tape</u>	Serial Number: <u>19FF 21119248</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.48</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Yes</u>	<u>3.98</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.79</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>Yes</u>	<u>6.98</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>No</u>	<u>na</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>20.10</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>Yes</u>	<u>na</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2030</u>	µS/cm	±5%	<u>P</u>	<u>Yes</u>	<u>na</u>	Geotech	3GA1071	Jan-24
ORP	<u>214</u>	mV	±15 mV	<u>P</u>	<u>Yes</u>	<u>na</u>	InSitu	2G1762	Jun-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>Yes</u>	<u>na</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.60</u>	%	97-100%	<u>P</u>	<u>Yes</u>	<u>na</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>Yes</u>	<u>na</u>	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	<u>3.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>na</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.87</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>na</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.88</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>na</u>	Geotech	2GE820	May-24
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>na</u>	Ricca	4207N97	Jul-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	<u>3.48</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>na</u>	<u>na</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.79</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>na</u>	<u>na</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>na</u>	<u>na</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>na</u>	<u>na</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>na</u>	<u>na</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>na</u>	<u>na</u>	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	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>na</u>	<u>na</u>	MSI	L344-09	12/14/2023
7.00a	<u>6.97</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>na</u>	<u>na</u>	MSI	L343-07	12/9/2023
10.00a	<u>9.87</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>na</u>	<u>na</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>na</u>	<u>na</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>na</u>	<u>na</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>na</u>	<u>na</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: <u>[Signature]</u>		Date: <u>7-18-23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Plumberger			Location:	Duck Creek				
Weather:	60-80°F mostly cloudy wind NE 3-10 mph			Environment:	grass, dirt, dust				
Multiparameter Water Meter	Make:	A-T	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Heron	Model:	Dipart	Serial Number:	3717-7			
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	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.96	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	6.96	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC Zero (DI)	19.09	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1002.7	µS/cm	±5%	P			Geotech	3GA1071	Jan-24
ORP	225.7	mV	±15 mV	P			InSitu	261762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.98	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.23	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:	0925			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	3.07	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24	
pH 7.00b	6.87	s.u.	±0.15 s.u.	P		Geotech	2GC931	Mar-24	
pH 10.00b	9.95	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	1005.3	µS/cm	±5%	P		Ricca	4207N97	Jul-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	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	L343-07	12/9/2023
pH 10.00a	10.10	s.u.	±0.1 s.u.	P			MSI	M082-04	3/25/2024
SC 1000	1033.7	µS/cm	±5%	P			Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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:	7/18/2023
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3GA520
Oct 23
EW 2/24

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>			Location: <u>Duck Creek</u>						
Weather: <u>71°-86°f sunny wind SE 6 mph</u>			Environment: <u>wooded, farm field</u>						
Multiparameter Water Meter		Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>739449</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>Digger 7</u>	Serial Number: <u>3717-7</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.92</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>15.16</u>	µS/cm	0-25 µS/cm	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1697.4</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Geotech	3GA1071	Jan-24
ORP	<u>225.6</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	<u>N/A</u>	InSitu	3G1762	Jun-23
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.33</u>	%	97-100%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

230 @ 24°C

ICV (Initial Calibration Verification)						Time: <u>0855</u>		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.01</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.92</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>986.07</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1530</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1004.8</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NO</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	<u>N/A</u>	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>[Signature]</u>	Date: <u>7/19/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: NW				Location: Duck Creek			
Weather: Sunny wind ESE 10mph 75-88				Environment: Grass			
Multiparameter Water Meter		Make: Aquatro	Model: 600	Serial Number: 480944			
Water Level Meter		Make: Heron	Model: dipper	Serial Number: 11FF2209305ML			

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	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	I	I	MSI	L343-07	12/9/2023
pH 10.00a	9.93	s.u.	±0.1 s.u.	P	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1835.7	µS/cm	±5%	F	yes	2001.9	Geotech	3GA1071	Jan-24
ORP	220.4	mV	±15 mV	F	N	N/A	InSitu	261762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	P	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	97.3	%	97-100%	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 10:00				
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	2GE870	Mar-24	
pH 7.00b	6.88	s.u.	±0.15 s.u.	F	calibrate - 7.00	Geotech	2GC931	Mar-24	
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24	
SC 1000	78.00	µS/cm	±5%	F	calibrate - 1000.0	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:50				
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	L344-09	12/14/2023
pH 7.00a	7.17	s.u.	±0.1 s.u.	F	yes	6.99	MSI	L343-07	12/9/2023
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	N	N/A	MSI	M082-04	3/25/2024
SC 1000	970	µS/cm	±5%	P	I	I	Ricca	4207N97	Jul-24
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	I	I	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P	I	I	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: Nicole Welch	Date: 7/19/23
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3GA524
Oct 23
7/21

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glennon</u>				Location: <u>Duck Creek</u>			
Weather: <u>82° Mostly Sunny 7 mph SE</u>				Environment: <u>Grass Field</u>			
Multiparameter Water Meter		Make: <u>AquaTron</u>	Model: <u>600</u>	Serial Number: <u>762193</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>2004T DIPAFT</u>	Serial Number: <u>19FF 211192HB</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.97</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.65</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1768.6</u>	µS/cm	±5%	<u>F</u>	<u>Y</u>	<u>2000.0</u>	Geotech	3GA1071	Jan-24
ORP	<u>205.1</u>	mV	±15 mV	<u>F</u>	<u>Y</u>	<u>229.0</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.78</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>1.78</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0930</u>		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE870	May-24
pH 7.00b	<u>6.89</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>9.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	2GE820	May-24
SC 1000	<u>1000.06</u>	µS/cm	±5%	<u>P</u>	<u>N/A</u>	Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>10:19</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.91</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1128.1</u>	µS/cm	±5%	<u>F</u>	<u>Y</u>	<u>1000.0</u>	Ricca	4209A12	Aug-23
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>12.20</u>	NTU	<2 NTU	<u>F</u>	<u>NO</u>	<u>N/A</u>	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-23
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: NO turb cal solution available

Signature: <u>Brendan Glennon</u> <u>Nicole Welch</u>	Date: <u>7/20/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lane</u>				Location: <u>Duck Creek</u>			
Weather: <u>83° Sunny</u>				Environment: <u>wet</u>			
Multiparameter Water Meter		Make: <u>Haniba</u>	Model: <u>V-5000</u>	Serial Number: <u>19FP2202131ML PW59103</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>water tape</u>	Serial Number: <u>19FP2202131ML</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>13.00</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Geotech	3GA1071	Jan-24
ORP	<u>216</u>	mV	±15 mV	<u>P</u>	<u>NA</u>	<u>NA</u>	InSitu	261762	Jun-23
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>48.00</u>	%	97-100%	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>09:34</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.07</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.13</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24	
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>NA</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	M082-04	3/25/2024
SC 1000	<u>/</u>	µS/cm	±5%	<u>/</u>	<u>/</u>	<u>/</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>/</u>	mg/L	±0.1 mg/L	<u>/</u>	<u>/</u>	<u>/</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>/</u>	NTU	<2 NTU	<u>/</u>	<u>/</u>	<u>/</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>15:29</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
7.00a	<u>7.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
10.00a	<u>10.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments:

NA

Signature: <u>Kyle Lane</u>	Date: <u>7-20-2023</u>
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3GA524
Oct 23
W 7:24

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>				Location: <u>Duck Creek</u>			
Weather: <u>80°-88° Sunny Windy NW 7 mph</u>				Environment: <u>grass, dirt, forest</u>			
Multiparameter Water Meter		Make: <u>Heron</u>	Model: <u>600</u>	Serial Number: <u>739449</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>51PRT</u>	Serial Number: <u>3717-T</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.93</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>12.37</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1945.6</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GA1071	Jan-24
ORP	<u>223.4</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	261762	Jan-23
DO (Zero pt)	<u>0.06</u>	mg/L	±0.1	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.67</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0920</u>			
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.07</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24
pH 7.00b	<u>6.85</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GC931	Mar-24
pH 10.00b	<u>9.87</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GE820	May-24
SC 1000	<u>1945.00</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1500</u>			
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1949.86</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.07</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>7/20/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JD				Location: V. 37th Duck Creek			
Weather: 78-90°F p. cloudy wind W 8-13 mph				Environment: 30 HFF HFF 2209305 ML grass			
Multiparameter Water Meter		Make: Aquatrroll	Model: 600	Serial Number: 762215			
Water Level Meter		Make: Heon	Model: Dipper-T	Serial Number: 11 FF 2209305 ML			

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	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC Zero (DI)	9.67	µS/cm	0<25 µS/cm	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	984.2	µS/cm	±5%	I	I	I	Geotech	3GA1071	Jan-24
ORP	216.3	mV	±15 mV	I	I	I	InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1	I	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	98.55	%	97-100%	I	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	I	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 0915			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.02	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.86	s.u.	±0.15 s.u.	I	I	Geotech	2GC931	Mar-24	
pH 10.00b	9.91	s.u.	±0.15 s.u.	I	I	Geotech	2GE820	May-24	
SC 1000	779.24	µS/cm	±5%	I	I	Ricca	4207N97	Jul-24	

Approx. every 4 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	4.10	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.09	s.u.	±0.1 s.u.	I	I	I	MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.	I	I	I	MSI	M082-04	3/25/2024
SC 1000	981.14	µS/cm	±5%	I	I	I	Ricca	4207N97	Jul-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	I	I	I	Macron	#000228049	8/26/2025
Turbidity (DI)	0.49	NTU	<2 NTU	I	I	I	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: 7/20/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD			Location:	V. 377m Duck Creek				
Weather:	76-90°F sunny wind NNE 6-mph			Environment:	grass, woods				
Multiparameter Water Meter	Make:	Aquatroll	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Heron	Model:	Dipper-T	Serial Number:	11FF2209305 ML			
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	N.	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	pass	N.	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	10.26	µS/cm	0<25 µS/cm	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2013.6	µS/cm	±5%	pass	N.	NA	Geotech	3GA1071	Jan-24
ORP	217.4	mV	±15 mV	pass	N.	NA	InSitu	261762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1	pass	N.	NA	Macron	#000228049	8/26/2025
DO (Saturated)	77.32	%	97-100%	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.62	NTU	<2 NTU	pass	N.	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 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	4.01	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24	
pH 7.00b	6.85	s.u.	±0.15 s.u.	pass	NA	Geotech	2GC931	Mar-24	
pH 10.00b	9.89	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE820	May-24	
SC 1000	1009.4	µS/cm	±5%	pass	NA	Ricca	4207N97	Jul-24	

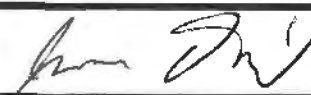
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	1545		
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.06	s.u.	±0.1 s.u.	pass	N.	NA	MSI	L343-07	12/9/2023
pH 10.00a	9.78	s.u.	±0.1 s.u.	pass	N.	NA	MSI	M082-04	3/25/2024
SC 1000	1022.22	µS/cm	±5%	pass	N.	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	pass	N.	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.62	NTU	<2 NTU	pass	N.	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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:	7/24/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	NIN			Location:	Duck Creek		
Weather:	76-89°F Sunny wind 2mph E			Environment:	Grass		
Multiparameter Water Meter	Make:	Aquatroil	Model:	6000	Serial Number:	739449	
Water Level Meter	Make:	Heron	Model:	1900	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	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	17.05	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1702.1	µS/cm	±5%	F	yes	2000.0	Geotech	3GA1071	Jan-24
ORP	218.0	mV	±15 mV	P	yes	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.03	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	97.3	%	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 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	08:50			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.09	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	May-24	
pH 7.00b	6.91	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24	
pH 10.00b	9.90	s.u.	±0.15 s.u.	P		Geotech	2GE820	May-24	
SC 1000	1129.5	µS/cm	±5%	F	yes - calibrate: 1000	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	14:55			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	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.	F	yes		MSI	023051-02	2/21/2025
pH 10.00a	9.80	s.u.	±0.1 s.u.	F	yes	10.0	MSI	022361-01	12/27/2024
SC 1000	1382.3	µS/cm	±5%	F	yes	1000.0	Ricca	4209A12	Aug-23
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	yes	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.87	NTU	<2 NTU	P	yes		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-23
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:	Nicole Welen	Date:	7/24/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jon Reed			Location:	Duck Creek				
Weather:	90° Sunny			Environment:	grassy / dry				
Multiparameter Water Meter	Make:	AquaTroll	Model:	600	Serial Number:	762193			
Water Level Meter	Make:	Heron	Model:	1900	Serial Number:	19FF211105HB			
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	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC Zero (DI)	9.44	µS/cm	0<25 µS/cm	I	I		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000.4	µS/cm	±5%	I	I		Geotech	3GA1071	Jan-24
ORP	230.1	mV	±15 mV	I	I		In Situ	250000	1-2024
DO (Zero pt)	0.04	mg/L	±0.1	I	I		Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%	I	I		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	I	I		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time:	950		
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	2GE870	Mar-24	
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	N	Geotech	2GC931	Mar-24	
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech	2GE820	May-24	
SC 1000	1019.4	µS/cm	±5%	I	I	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:	1612		
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		MSI	L344-09	12/14/2023
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	N		MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	M082-04	3/25/2024
SC 1000	1032.1	µS/cm	±5%	I	I		Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L	I	I		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	I	I		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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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:	Jon R Reed			Date:	7/24/23		
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Kyle Lowe</u>				Location: <u>Duck Creek</u>					
Weather: <u>81° Sunny</u>				Environment: <u>dry</u>					
Multiparameter Water Meter:		Make: <u>Hanna</u>	Model: <u>V-500</u>	Serial Number: <u>PW267503</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>water tape</u>	Serial Number: <u>19FF2202131ML</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.95</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>14.10</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2020</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Geotech	3GA1071	Jan-24
ORP	<u>215</u>	mV	±15 mV	<u>P</u>	<u>NA</u>	<u>NA</u>	InSitu	201702	Jun-23
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>92.10</u>	%	97-100%	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>08:59</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.97</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>6.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>9.88</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GE820	May-24	
SC 1000	<u>1040</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>NA</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>/</u>	s.u.	±0.1 s.u.	<u>/</u>	<u>/</u>	<u>/</u>	MSI	M082-04	3/25/2024
SC 1000	<u>/</u>	µS/cm	±5%	<u>/</u>	<u>/</u>	<u>/</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>/</u>	mg/L	±0.1 mg/L	<u>/</u>	<u>/</u>	<u>/</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>/</u>	NTU	<2 NTU	<u>/</u>	<u>/</u>	<u>/</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>16:06</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L344-09	12/14/2023
7.00a	<u>7.06</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	L343-07	12/9/2023
10.00a	<u>10.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	<u>NA</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.06</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>NA</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Comments:

NA

Signature: <u>Kyle Lowe</u>		Date: <u>7-24-23</u>	
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Multiparameter Meter Field Calibration Checklist

Field Personnel: NW				Location: Duck Creek			
Weather: Sunny 80-92°F, wind SSE 10mph				Environment: Grass			
Multiparameter Water Meter		Make: Aquatroll	Model: 1000	Serial Number: 739449			
Water Level Meter		Make: Heron	Model: 1900	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	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	I	I	MSI	023051-02	2/21/2025
pH 10.00a	9.92	s.u.	±0.1 s.u.	P	I	I	MSI	022361-01	12/27/2024
SC Zero (DI)	17.99	µS/cm	0<25 µS/cm	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2203.7	µS/cm	±5%	F	yes	2000.0	Geotech	3GA1071	Jan-24
ORP	213.3	mV	±15 mV	P	N	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.08	mg/L	±0.1	P	I	I	Macron	#000228049	8/26/2025
DO (Saturated)	99.8	%	97-100%	P	I	I	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	I	I	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: 09:10			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	4.21	s.u.	±0.15 s.u.	F	calibrate - 4.00	Geotech	2GE870	May-24	
pH 7.00b	6.82	s.u.	±0.15 s.u.	F	calibrate - 7.00	Geotech	2GF113	Jun-24	
pH 10.00b	9.85	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE820	May-24	
SC 1000	720.85	µS/cm	±5%	F	calibrate - 1000.0	Ricca	4209A12	Aug-23	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: 14:27 NW 16:27			
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	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	I	I	MSI	023051-02	2/21/2025
pH 10.00a	9.90	s.u.	±0.1 s.u.	P	I	I	MSI	022361-01	12/27/2024
SC 1000	1039.1	µS/cm	±5%	F	yes	1000.0	Ricca	4209A12	Aug-23
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	P	N	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.70	NTU	<2 NTU	P	I	I	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-23
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: Nicore Welton	Date: 7/25/23
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3GA526
Exp. Oct. 23
BE 7/26/23

Multiparameter Meter Field Calibration Checklist

Field Personnel: NW		Location: Duck Creek	
Weather: Sunny 74-90°F Wind 4 mph SSE		Environment: Grass	
Multiparameter Water Meter	Make: Aquatroll	Model: 000	Serial Number: 762215
Water Level Meter	Make: Heron	Model: 1900	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	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	I		MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	I		MSI	022361-01	12/27/2024
SC Zero (DI)	2.654	µS/cm	0<25 µS/cm	P	I		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1755.9	µS/cm	±5%	F	YES	2000.0	Geotech	3GA1071	Jan-24
ORP	216.0	mV	±15 mV	P	N	N/A	InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1	P	I		Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%	P	I		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.01	NTU	<2 NTU	P	I		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:40			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	May-24
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	I	Geotech	2GF113	Jun-24
pH 10.00b	9.90	s.u.	±0.15 s.u.	P	I	Geotech	2GE820	May-24
SC 1000	1118.10	µS/cm	±5%	F	Calibrate - 1000.0	Ricca	4209A12	Aug-23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 11:17				
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	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.24	s.u.	±0.1 s.u.	F	YES	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	022361-01	12/27/2024
SC 1000	1043.0	µS/cm	±5%	F	YES	1000.0	Ricca	4209A12	Aug-23
DO (Zero pt)	0.03	mg/L	±0.1 mg/L	P	N	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.95	NTU	<2 NTU	P	I	I	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-23
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: Nick Wilson	Date: 7/27/23
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BC

Multiparameter Meter Field Calibration Checklist

Field Personnel: Kyle Lorne				Location: Duck Creek					
Weather: 96° Sunny				Environment: Dry					
Multiparameter Water Meter:		Make: HANNA	Model: U-5000	Serial Number: PW267JP3					
Water Level Meter		Make: HANNA	Model: Water tape	Serial Number: 19FF-2202131ML					
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	Na	Na	MSI	L344-09	12/14/2023
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	Na	Na	MSI	L343-07	12/9/2023
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	Na	Na	MSI	M082-04	3/25/2024
SC Zero (DI)	20.10	µS/cm	<25 µS/cm	P	Na	Na	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	Na	Na	Geotech	3GA1071	Jan-24
ORP	216	mV	±15 mV	P	Na	Na	InSitu	2G1762	Jun-23
DO (Zero pt)	0.01	mg/L	±0.1	P	Na	Na	Macron	#000228049	8/26/2025
DO (Saturated)	95.10	%	97-100%	P	Na	Na	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	Na	Na	Pace Labs	N/A (DI)	N/A (DI)
Approx. every 4 hrs, unless only one well									
ICV (Initial Calibration Verification)					Time: 10:23				
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	2GE870	Mar-24	
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	Na	Geotech	2GC931	Mar-24	
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	Na	Geotech	2GE820	May-24	
SC 1000	1020	µS/cm	±5%	P	Na	Ricca	4207N97	Jul-24	
Approx. every 4 hrs, unless only one well									
CCV (Continued Calibration Verification):					Time: NA				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: Hegen					Date: 7-27-23				

Multiparameter Meter Field Calibration Checklist

Field Personnel: KL JR				Location: Duck Creek					
Weather: 75° Sunny				Environment: Dr					
Multiparameter Water Meter		Make: Horiba	Model: V-5000	Serial Number: PW264JD3					
Water Level Meter		Make: Heron	Model: Water tape	Serial Number: 19FF 2202131ML					
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	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC Zero (DI)	20.00	µS/cm	0<25 µS/cm	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	NA	NA	Geotech	3GA1071	Jan-24
ORP	213	mV	±15 mV	P	NA	NA	InSite	2G1762	Jun-23
DO (Zero pt)	0.02	mg/L	±0.1	P	NA	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.04	%	97-100%	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 09:53				
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	Geotech	2GE870	Mar-24	
pH 7.00b	6.99	s.u.	±0.15 s.u.	P	NA	Geotech	2GC931	Mar-24	
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	NA	Geotech	2GE820	May-24	
SC 1000	1010	µS/cm	±5%	P	NA	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: NA				
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	NA	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 15:00				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.07	s.u.	±0.1 s.u.	P	NA	NA	MSI	L344-09	12/14/2023
7.00a	6.99	s.u.	±0.1 s.u.	P	NA	NA	MSI	L343-07	12/9/2023
10.00a	10.03	s.u.	±0.1 s.u.	P	NA	NA	MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%	P	NA	NA	Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NA	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: H. Gae	Date: 7-31-2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel: JR K2				Location: Duck Creek			
Weather: 70°-86° Sunny wind 3-4 mph				Environment: grass			
Multiparameter Water Meter		Make: Horiba	Model: U500	Serial Number: PW26YJD3			
Water Level Meter		Make: Heron	Model: 1900	Serial Number: 19 FF 2202131ML			

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	6.95	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	9.98	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	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	N		Geotech	3GA1071	Jan-24
ORP	238	mV	±15 mV	P	N		InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	98.5	%	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: 920	
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech
pH 7.00b	7.00	s.u.	±0.15 s.u.	P	N	Geotech
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech
SC 1000	1010	µS/cm	±5%	P	N	Ricca

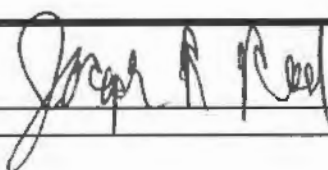
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1515				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.				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	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)	0.04	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-23
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: 8/10/23
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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: Visira Corp Address: 13498 E. 900th St Email To: Brian.Voelker@VisiraCorp.com Phone: (217) 753-9911 Fax: Requested Due Date/TAT: 10 day		Section B Required Project Information: Report To: Brian Voelker Copy To: Jason Stuckey Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #: 	
REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: IL STATE: 6603019		Requested Analysis Filtered (Y/N)			

Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WWT WASTE WATER WW PRODUCT P SOIL/SOLID S OIL OIL WIPE WIP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↑	Y/N ↓	DC-257-205	DC-SUP-000	DC-845-205	DC-845-201-202	DC-257-203	DC-845-203	DC-257-204	DC-811-204	DC-WPCP-203-206	DC-CLOSURE-201-202	Residual Chlorine (Y/N)	Project No./ Lab I.D.
				H ₂ SO ₄	HNO ₃					HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																
ITEM #																														
1	G04S	WT G	G	7/18/23	1338				3	X																				
2	G04S Dup	WT G	G	7/18/23	1338				3	X																				
3	P05L	WT G	G	7/18/23	1054				4	X																				
4	G06L	WT G	G	7/18/23	1440				3	X																				
5	G06S	WT G	G	7/18/23	1521				3	X																				
6	G14L	WT G	G	7/18/23	1150				1	X																				
7	G51S	WT G	G	7/18/23	1202				11	X																				
8	G56S	WT G	G		1014				2	X																				
9	G56L	WT G	G		1057				2	X																				
10	G57L	WT G	G		1149				2	X																				
11	G58S	WT G	G		1235				2	X																				
12	G59S	WT G	G		1342				2	X																				
13	G61S	WT G	G		1420				2	X																				
14	G63S	WT G	G		1457				2	X																				
15	G65S	WT G	G		1532				2	X																				
16	G73L	WT G	G		1547				2	X																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS																

ADDITIONAL COMMENTS DC-230Q3 Rev 0		RELINQUISHED BY / AFFILIATION <i>Jim Dm</i>	DATE 7/18/23	TIME 1716	ACCEPTED BY / AFFILIATION <i>Jim Wagon</i>	DATE 7-18-23	TIME 1716	Temp in °C 3.6	Received on Ice (Y/N) ✓ Custody Sealed (Y/N) ✓ Cooler (Y/N) ✓ Samples Intact (Y/N) ✓
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DATE Signed (MM/DD/YY): **7/18/23**

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DATE Signed (MM/DD/YY): **7/18/23**

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

DC-257-204

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

Page: 6 of 755

APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT, LANDFILL
DC-257-204

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: 7 of 7	
Company: <u>Vistra Corp</u>		Report To: <u>Brian Voelker</u>		Attention: <u>Jason Stuckey</u>		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: <u>IL</u> <u>6604417</u> STATE: <u>IL</u>	
Address: <u>13498 E. 900th St</u>		Copy To: <u>Jason Stuckey</u>		Company Name: <u>Vistra Corp</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No:		Address: <u>see Section A</u>			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: <u>10 day</u>		Project Number: <u>2285</u>		Project Manager:			
				Profile #:			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOLID/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		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Y/N Analysis Test	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC-257-205	DC-SUP-000	DC-845-205	DC-845-201-202	DC-257-203	DC-845-203	DC-257-204	DC-811-204	DC-WPCP-203-206	DC-CLOSURE-201-202				
1	OM17		WT	G	7/25/23	1515		8	X	X	X																				
2	OM045					1424		11	X	X	X																				
3	OR040					1201		11	R	X	X																				
4	G58L					1351		2	X		X																				
5	R61L					1310		10	X	X	X																				
6	G62L					1219		16	X	X	X																				
7	G63L					1121	30	2	X	X	X																				
8	G155					1031		3	X		X																				
9	EB8					1601		11	X	X	X																				
10	EB9					1615		10	X	X	X																				
11	G63L Dup					1121		2	X		X																				
12	G645					1623		11	X	X	X																				
13	G025					1435		11	X	X	X																				
14	BA02					1247		11	X	X	X																				
15																															
16																															

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
DC-23Q3 Rev 0		<u>Joe Reed</u>		7/25/23	1746	<u>Van Wagon</u>		7-25-23	1746	5.3	Y	N	Y	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <u>Joe Reed</u> SIGNATURE of SAMPLER: <u>Joe Reed</u>										DATE Signed (MM/DD/YY): <u>7/25/23</u>	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.

Section A Required Client Information: Company: Vistra Corp Address: 13498 E. 900th St 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: Jason Stuckey Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Jason Stuckey Company Name: Vistra Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 1 of 7	
Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTE WATER P PRODUCT P SOLID/SOLID SL OIL OL WIFE WP AIR AR OTHER OT TISSUE TS		Preservatives H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Requested Analysis Filtered (Y/N)	
# ITEM #		MATRIX CODE (see valid codes to left)		SAMPLE TYPE (G=GRAB C=COMP)		COLLECTED DATE TIME	
1 OM01		WTG		G		7/25/23 1241	
2 OM01 DUP		I		I		7/25/23 1241	
3 G54L		I		I		7/25/23 1523	
4 G54S		I		I		7/25/23 1556	
5 G57S		I		I		7/25/23 1426	
6 X301		I		I		7/25/23 1606	
7		I		I		7/25/23 1606	
8		I		I		7/25/23 1606	
9		I		I		7/25/23 1606	
10		I		I		7/25/23 1606	
11		I		I		7/25/23 1606	
12		I		I		7/25/23 1606	
13		I		I		7/25/23 1606	
14		I		I		7/25/23 1606	
15		I		I		7/25/23 1606	
16		I		I		7/25/23 1606	

ADDITIONAL COMMENTS DC-23Q3 Rev 0		RELINQUISHED BY / AFFILIATION <i>James Dond</i>		DATE 7/25/23		TIME 1722		ACCEPTED BY / AFFILIATION <i>James Dond</i>		DATE 7/25/23		TIME 1722		SAMPLE CONDITIONS Received on Ice (Y/N) Y		Custody Sealed (Y/N) N		Cooler (Y/N) N		Samples Intact (Y/N) Y	
Project No. / Lab I.D.		Residual Chlorine (Y/N)		DC-257-205		DC-845-205		DC-845-201-202		DC-257-203		DC-845-203		DC-257-204		DC-811-204		DC-WPCP-203-206		DC-CLOSURE-201-202	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
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NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
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NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
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NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
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NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
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NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
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NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER		OTHER		DRINKING WATER	
NPDES		GROUND WATER		RCRA		OTHER		DRINKING WATER		OTHER											

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 7

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		REGULATORY AGENCY NPDES GROUND WATER DRINKING WATER UST RCRA OTHER Site Location: IL STATE:	
Company: Vistra Corp		Report To: Brian Voelker		Attention: Jason Stuckey			
Address: 13498 E. 900th St		Copy To: Jason Stuckey		Company Name: Vistra Corp			
Email To: Brian.Voelker@VistraCorp.com		Purchase Order No.:		Address: see Section A			
Phone: (217) 753-8911 Fax:		Project Name:		Quote Reference:			
Requested Due Date/TAT: 10 day		Project Number: 2285		Project Manager:			
				Profile #:			

ITEM #	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	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↓	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)	Project No./ Lab I.D.
					DATE	TIME			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		DC-257-205	DC-SUP-000	DC-845-205	DC-845-201-202	DC-257-203	DC-845-203	DC-257-204	DC-811-204	DC-WPCP-203-206	DC-CLOSURE-201-202				
1	2R13D		WT G		7/26/23	1315	11	X	X	X																					
2	OR13D Dup					1315	11	X	X	X																					
3	OR13S					1142	11	X	X	X																					
4	OR11					1010	11	X	X	X																					
5	OM07					1152	11	X	X	X																					
6	OR06A					1233	11	X	X	X																					
7	OM25S					1330	11	X	X	X																					
8	EB10					1500	11	X	X	X																					
9	EB11					1505	11	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-23Q3 Rev 0		Brian Davis		7/26/23		1529		Jason Stuckey		7-26-23		1529		0.4 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: James David					
SIGNATURE of SAMPLER: [Signature]					
DATE Signed (MM/DD/YY): 7/26/23					



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

January 02, 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,

A handwritten signature in cursive script, appearing to read "Diane Billings".

Diane Billings
Project Manager



SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GJ03962

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
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



Work Order GJ04997

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



ANALYTICAL RESULTS

Sample: GJ03962-01
Name: L103
Matrix: Leachate - Regular Sample

Sampled: 10/20/23 14:20
Received: 10/20/23 16:14
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	100	mg/L		11/02/23 22:19	25	25	11/02/23 22:19	CRD	EPA 300.0 REV 2.1
Sulfate	2100	mg/L		10/21/23 03:34	250	250	10/21/23 03:34	CRD	EPA 300.0 REV 2.1
Field - PIA									
Dissolved oxygen, Field	3.9	mg/L		10/20/23 14:20	1		10/20/23 14:20	FIELD	Field*
Oxidation Reduction Potential	111	mV		10/20/23 14:20	1	-500	10/20/23 14:20	FIELD	Field*
pH, Field Measured	8.43	pH Units		10/20/23 14:20	1		10/20/23 14:20	FIELD	Field*
Specific Conductance, Field Measured	4846	umhos/cm		10/20/23 14:20	1		10/20/23 14:20	FIELD	Field*
Temperature, Field Measured	17.7	°C		10/20/23 14:20	1		10/20/23 14:20	FIELD	Field*
Turbidity, Field Measured	1.37	NTU		10/20/23 14:20	1	0.00	10/20/23 14:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO ₃	200	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO ₃	< 10	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Fluoride	0.638	mg/L		11/08/23 14:05	1	0.250	11/08/23 14:05	ANK	SM 4500F C 1997
Solids - total dissolved solids (TDS)	3600	mg/L	B2	10/26/23 12:30	1	34	10/26/23 14:59	CPS	SM 2540C
Total Metals - PIA									
Boron	15000	ug/L		10/23/23 09:11	100	200	10/26/23 12:45	TJJ	EPA 6020A
Calcium	130	mg/L		10/23/23 09:11	5	0.20	10/25/23 17:24	TJJ	EPA 6020A
Magnesium	45	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:24	TJJ	EPA 6020A
Potassium	16	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:24	TJJ	EPA 6020A
Sodium	970	mg/L		10/23/23 09:11	100	2.0	10/26/23 12:45	TJJ	EPA 6020A

Sample: GJ04997-02
Name: G12S
Matrix: Ground Water - Grab

Sampled: 10/27/23 12:21
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
pH, Field Measured	7.41	pH Units		10/27/23 12:21	1		10/27/23 12:21	FIELD	Field*



ANALYTICAL RESULTS

Sample: GJ04997-03
Name: G15S
Matrix: Ground Water - Grab

Sampled: 10/27/23 11:03
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
pH, Field Measured	7.11	pH Units		10/27/23 11:03	1		10/27/23 11:03	FIELD	Field*

Sample: GJ04997-10
Name: G06S
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:10
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Total Metals - PIA									
Calcium	270	mg/L		11/02/23 08:47	5	0.20	11/09/23 10:52	TJJ	EPA 6020A



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>Batch B347107 - SW 3015 - EPA 6020A</u>									
Blank (B347107-BLK1)				Prepared: 10/23/23 Analyzed: 10/26/23					
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 (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/26/23					
Boron	518	ug/L		555.6		93	80-120		
Calcium	5.61	mg/L		5.556		101	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Potassium	5.80	mg/L		5.556		104	80-120		
Sodium	5.71	mg/L		5.556		103	80-120		
<u>Batch B347137 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B347137-CCB1)				Prepared & Analyzed: 10/20/23					
Sulfate	0.00	mg/L							
Calibration Check (B347137-CCV1)				Prepared & Analyzed: 10/20/23					
Sulfate	4.84	mg/L		5.000		97	90-110		
<u>Batch B347490 - No Prep - SM 2540C</u>									
Blank (B347490-BLK1)				Prepared & Analyzed: 10/26/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347490-BS1)				Prepared & Analyzed: 10/26/23					
Solids - total dissolved solids (TDS)	917	mg/L		1000		92	84.9-109		
<u>Batch B348049 - SW 3015 - EPA 6020A</u>									
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Calcium	< 0.20	mg/L							
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Calcium	5.60	mg/L		5.556		101	80-120		
Matrix Spike (B348049-MS1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Calcium	233	mg/L	Q4	5.556	229	70	75-125		
Matrix Spike Dup (B348049-MSD1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Calcium	235	mg/L		5.556	229	108	75-125	0.9	20
<u>Batch B348218 - IC No Prep - EPA 300.0 REV 2.1</u>									
Calibration Blank (B348218-CCB1)				Prepared & Analyzed: 11/02/23					
Chloride	0.00	mg/L							
Calibration Check (B348218-CCV1)				Prepared & Analyzed: 11/02/23					
Chloride	4.86	mg/L		5.000		97	90-110		
<u>Batch B348569 - No Prep - SM 4500F C 1997</u>									
Calibration Blank (B348569-CCB1)				Prepared & Analyzed: 11/08/23					
Fluoride	0.0190	mg/L							
Calibration Blank (B348569-CCB2)				Prepared & Analyzed: 11/08/23					
Fluoride	0.0160	mg/L							



QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B348569-CCV1)				Prepared & Analyzed: 11/08/23					
Fluoride	0.685	mg/L		0.7000		98	90-110		
Calibration Check (B348569-CCV2)				Prepared & Analyzed: 11/08/23					
Fluoride	0.698	mg/L		0.7000		100	90-110		



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

- B2 Contamination does not impact data since sample result is greater than ten times the contamination level found in the blank.
- 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



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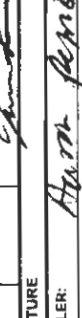
CHAIN-OF-CUSTODY / Analytical Request Document

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: Visira Corp-Duck Creek		Report To: Brian Voelker		Attention: Brian Voelker	
Address: 17751 North Cicco Rd		Copy To: Sam Davies: samantha.davies@visiracorp.com		Company Name: Visira Corp	
Canton, IL 61520		Daryl Johnson: Robert.Johnson@visiracorp.com		Address: see Section A	
Email To: Brian.Voelker@VisiraCorp.com		Purchase Order No.:		Quote Reference	
Phone: (217) 753-8911		Project Name:		Project Manager	
Requested Due Date/TAT: 10 day		Project Number: 2285		Profile #	
REGULATORY AGENCY		REGULATORY AGENCY		REGULATORY AGENCY	
NPDES		GROUND WATER		DRINKING WATER	
UST		RCRA		OTHER	
Site Location		IL		STATE:	
Requested Analysis Filtered (Y/N)		Requested Analysis Filtered (Y/N)		Requested Analysis Filtered (Y/N)	
Matrix Code (see valid codes to left)		Matrix Code (see valid codes to left)		Matrix Code (see valid codes to left)	
Sample Type (G=GRAB C=COMP)		Sample Type (G=GRAB C=COMP)		Sample Type (G=GRAB C=COMP)	
DATE		DATE		DATE	
TIME		TIME		TIME	
COLLECTED		COLLECTED		COLLECTED	
SAMPLE TEMP AT COLLECTION		SAMPLE TEMP AT COLLECTION		SAMPLE TEMP AT COLLECTION	
# OF CONTAINERS		# OF CONTAINERS		# OF CONTAINERS	
Preservatives		Preservatives		Preservatives	
Unpreserved		Unpreserved		Unpreserved	
H ₂ SO ₄		H ₂ SO ₄		H ₂ SO ₄	
HNO ₃		HNO ₃		HNO ₃	
HCl		HCl		HCl	
NaOH		NaOH		NaOH	
Na ₂ S ₂ O ₃		Na ₂ S ₂ O ₃		Na ₂ S ₂ O ₃	
Methanol		Methanol		Methanol	
Other		Other		Other	
Analysis Test		Analysis Test		Analysis Test	
DC-257-203		DC-257-203		DC-257-203	
DC-257-204		DC-257-204		DC-257-204	
DC-845-205		DC-845-205		DC-845-205	
DC-845-201-202		DC-845-201-202		DC-845-201-202	
DC-845-203		DC-845-203		DC-845-203	
DC-SUP-000		DC-SUP-000		DC-SUP-000	
DC-WPCP-203-206		DC-WPCP-203-206		DC-WPCP-203-206	
Residual Chlorine (Y/N)		Residual Chlorine (Y/N)		Residual Chlorine (Y/N)	
Project No./ Lab I.D.		Project No./ Lab I.D.		Project No./ Lab I.D.	
RECEIVED BY / AFFILIATION		RECEIVED BY / AFFILIATION		RECEIVED BY / AFFILIATION	
DATE		DATE		DATE	
TIME		TIME		TIME	
ACCEPTED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		ACCEPTED BY / AFFILIATION	
DATE		DATE		DATE	
TIME		TIME		TIME	
SAMPLE CONDITIONS		SAMPLE CONDITIONS		SAMPLE CONDITIONS	
Received on		Received on		Received on	
Sealed		Sealed		Sealed	
Cooler (Y/N)		Cooler (Y/N)		Cooler (Y/N)	
Samples		Samples		Samples	
Temp in °C		Temp in °C		Temp in °C	
10/27/23		10/27/23		10/27/23	
1649		1649		1649	
8.0		8.0		8.0	
SAMPLER NAME AND SIGNATURE		SAMPLER NAME AND SIGNATURE		SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:		PRINT Name of SAMPLER:		PRINT Name of SAMPLER:	
SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:		SIGNATURE of SAMPLER:	
DATE Signed (MM/DD/YYYY):		DATE Signed (MM/DD/YYYY):		DATE Signed (MM/DD/YYYY):	
10/27/23		10/27/23		10/27/23	

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information: Company: Visira Corp-Duck Creek Address: 17751 North Cicero Rd Canton, IL 61520 Email To: Brian.Voelker@VisiraCorp.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@visiracorp.com Address: see Section A Daryl Johnson; Robert.Johnson@visiracorp.com Purchase Order No.: Project Name: Project Number: 2285		Section C Invoice Information: Attention: Brian Voelker Company Name: Visira Corp Address: see Section A Quote Reference: Project Manager: Profile #		Page: 3 of 10	
Section D Required Client Information Valid Matrix Codes MATRIX CODE DW DRINKING WATER WT WASTE WATER P PRODUCT SOL SOLID OIL PIPE AIR OTHER TISSUE TS 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 TIME		# OF CONTAINERS PRESERVATIVES Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other		Analysis Test Y/N	
ITEM #							
1	G53S	WT G	10/27/23	1338	54		
2	G54L	WT G	10/27/23	1154	5		
3	G54S						
4	G55L						
5	G55S						
6	G56L						
7	G56S						
8	G57L	WT G	10/27/23	1402	2		
9	G57S						
10	G58L	WT G	10/27/23	1431	2		
11	G58S						
12	G59L	WT G	10/27/23	1512	2		
13	G59S						
14	G60L						
15	G60S						
16	G61S						
ADDITIONAL COMMENTS DC-23Q4 Rev 0		RELINQUISHED BY / AFFILIATION 		DATE 10/27/23		TIME 1644	
ACCEPTED BY / AFFILIATION 		DATE 10/27/23		TIME 1649		SAMPLE CONDITIONS Received on Y Custody Sealed Y Cooler (Y/N) Y Inlet (Y/N) Y	
SAMPALER NAME AND SIGNATURE PRINT Name of SAMPALER: Brian Voelker SIGNATURE of SAMPALER: 		DATE Signed 10/27/23		INMIDITY: 10/27/23			

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information: Company: Vistra Corp-Duck Creek Address: 17751 North Cicco Rd Canton, IL 61520 Email To: Brian.Voelker@VistraCorp.com Phone: (217) 753-8811 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	
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 WW Wastewater P Product P Solid S Oil O Air A Other OT Tissue TS		SAMPLE TYPE (G=GRAB C=COMP) MATRIX CODE (see valid codes to left) DATE TIME COLLECTED		# OF CONTAINERS PRESERVATIVES H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other Analysis Test: Y/N	
Project No./ Lab I.D. Residual Chlorine (Y/N)		Requested Analysis Filtered (Y/N)		DATE TIME ACCEPTED BY / AFFILIATION DATE SIGNED (MM/DD/YY):		SAMPLE CONDITIONS Received on (Y/N) 1 Custody Sealed (Y/N) Y Samples Intact (Y/N) Y	
DC-23Q4 Rev 0		10/27/23 1424 10/27/23 1457 10/27/23 1310		10/27/23 1644 10/27/23 1644 10/27/23 1644		10/27/23 1644 10/27/23 1644 10/27/23 1644	
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE TIME		SAMPLE CONDITIONS	

CHAIN-OF-CUSTODY / Analytical Request Document

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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 Quota Reference: Project Manager: Profile #:		Page: 6 of 10	
Section D Required Client Information Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOLIDWASTE SW AIR WP OTHER OT TISSUE TS SAMPLE ID (A-Z, 0-9 / .) Sample IDs MUST BE UNIQUE		Preservatives HCl HNO ₃ H ₂ SO ₄ NaOH Na ₂ S ₂ O ₃ Methanol Other		Requested Analysis Filtered (Y/N) Y/N		Project No./ Lab I.D.	
ITEM #	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Analysis Test	Residual Chlorine (Y/N)
1	OM23S						
2	OM24D						
3	OM25D						
4	OM25S						
5	OR02	W6 10/27/23 1330					
6	OR03D						
7	OR03S						
8	OR04D						
9	OR05D						
10	OR06A						
11	OR11						
12	OR13D						
13	OR13S						
14	OR14D						
15	OR14S						
16	OR18						
Section E ADDITIONAL COMMENTS DC-23Q4 Rev 0		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)	
SIGNATURE OF SAMPLER: PRINT Name of SAMPLER: DATE Signed (MM/DD/YY):		SIGNATURE OF SAMPLER: PRINT Name of SAMPLER: DATE Signed (MM/DD/YY):		SIGNATURE OF SAMPLER: PRINT Name of SAMPLER: DATE Signed (MM/DD/YY):		SIGNATURE OF SAMPLER: PRINT Name of SAMPLER: DATE Signed (MM/DD/YY):	

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 Cicco Rd Canton, IL 61520			Copy To:			Sam Davies: samantha.davies@vistracorp.com			Company Name:			Vistra Corp								
Email To:			Brian.Voelker@VistraCorp.com			Purchase Order No.:						Address:			see Section A								
Phone:			(217) 753-8911			Project Name:						Quote Reference:											
Fax:						Project Manager:						Site Location											
Requested Due Date/TAT:						10 day						STATE:						IL					

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX DRINKING WATER DW WASTE WATER WW PRODUCT P SOIL/SOLID S OIL OIL WASTE WASTE AIR AIR OTHER OT TISSUE TS	MATRIX CODE (See valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Requested Analysis Filtered (Y/N)					Project No./ Lab I.D.					
															Y	N	DC-257-203	DC-257-204	DC-845-203		DC-845-204	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206
1		OR19																							
2		OR20																							
3		P01I																							
4		P01L																							
5		P01S																							
6		P02S																							
7		P04S																							
8		P05D																							
9		P05L																							
10		P05S																							
11		P36D																							
12		P36L																							
13		P36S																							
14		P37D																							
15		P37L																							
16		P38L																							
ADDITIONAL COMMENTS																SAMPLE CONDITIONS									
DC-23Q4 Rev 0																Temp in °C					Received on	Sealed	Cooler (Y/N)	Samples	
																16.44					8.0	Y	Y	Y	7
SAMPLER NAME AND SIGNATURE																DATE SIGNED					TEMPERATURE				
PRINT NAME of SAMPLER:																10/27/23					10/27/23				
SIGNATURE of SAMPLER:																									

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[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 9 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek	Report To:	Brian Voelker
Address:	17751 North Cicero Rd Canton, IL 61520	Copy To:	Sam Davies: samantha.davies@vistracorp.com
Email To:	Brian.Voelker@VistraCorp.com	Daryl Johnson:	Robert.Johnson@vistracorp.com
Phone:	(217) 753-8911	Purchase Order No.:	
Fax:		Project Name:	
Requested Due Date/TAT:	10 day	Project Number:	2285

Section B Required Project Information:

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

Section C Requested Analysis Filtered (Y/N)

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

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTEWATER WW INDUSTRIAL WASTE IW PRECIPITATION P SL OIL WASTE
--------	--	--

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)
DC-23Q4 Rev 0	<i>[Signature]</i>	10/27/23	1649	<i>[Signature]</i>	10/27/23	1649	8.0	Y	Y	Y
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>[Signature]</i> SIGNATURE of SAMPLER: <i>[Signature]</i>										
DATE Signed (MM/DD/YYYY): 10/27/23										

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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-23Q4 Rev 1

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01	DC-BA01	205	BAB	10/16/23	1435	16.25		BG
BA01C	DC-BA01!C	205	BAB		1439	16.07		
BA01L	DC-BA01!L	205	BAB		1437	17.15		
BA02	DC-BA02	205	BAB		1423	13.03	U:6/19/23 GKJ	
BA02L	DC-BA02!L	205	BAB		1425		Top of Pump	
BA03	DC-BA03	205	BAB		1324	11.06		
BA03L	DC-BA03!L	205	BAB		1320	10.85		
BA04	DC-BA04	205	BAB		1442	7.75		
BA05	DC-BA05#	205	BAB		1506	26.60		
BA06	DC-BA06	205	BAB		1500	24.70		
G02L	DC-G02!L	204	LF		1454	16.20		
G02S	DC-G02#S	204	LF		1449	14.23	Transducer N/A	
G02D	DC-G02&D	204	LF		1452	25.09	alternate name P02D	
G03L	DC-G03!L	204	LF		1503	13.72		
G03S	DC-G03#S	204	LF		1500	13.55		
G04L	DC-G04!L	204	LF		1350	15.40		
G04S	DC-G04#S	204	LF		1353	21.43		
G06L	DC-G06!L	204	LF		1105	23.03		
G06S	DC-G06#S	204	LF		1103	23.34		
G07L	DC-G07!L	204	LF		1110	21.41	Top of Pump	
G08L	DC-G08!L	204	LF		1113	21.20	Top of Pump	
G09L	DC-G09!L	204	LF		1121	21.37	Top of Pump	
G09S	DC-G09#S	204	LF		1118	22.33		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G12L	DC-G12!L	204	LF	10/16/23	1146	24.50		BG
G12S	DC-G12#S	204	LF		1149	25.70		
G14L	DC-G14!L	204	LF		1159	26.14		
G15L	DC-G15!L	204	LF		1225	32.95	Top of Pump	
G15S	DC-G15#S	204	LF		1227	34.44		
G16L	DC-G16!L	204	LF		1230	32.45		
G50L	DC-G50!L	203	GMF		1129	17.42	Top of Pump	
G50S	DC-G50#S	203	GMF		1131	18.80		
G51L	DC-G51!L	203	GMF		1146	18.68	Top of Pump	
G51S	DC-G51#S	203	GMF		1144	19.81		
G52L	DC-G52!L	203	GMF		1148	28.30		
G52S	DC-G52#S	203	GMF		1151	32.04		
G53L	DC-G53!L	203	GMF		1119	15.81		
G53S	DC-G53#S	203	GMF		1121	18.73		
G54L	DC-G54!L	203	GMF		1158	21.89		
G54S	DC-G54#S	203	GMF		1154	28.00		
G55L	DC-G55!L	203	GMF		1209	19.62		
G55S	DC-G55#S	203	GMF		1213	19.51		
G56L	DC-G56!L	203	GMF		1014	20.10		
G56S	DC-G56#S	203	GMF		1016	20.77		
G57L	DC-G57!L	203	GMF		1018	25.02		
G57S	DC-G57#S	203	GMF		1020	24.83		
G58L	DC-G58!L	203	GMF		1029	28.95		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G58S	DC-G58#S	203	GMF	10/16/23	1030	29.05		BG
G59L	DC-G59!L	203	GMF		1034	29.09		
G59S	DC-G59#S	203	GMF		1033	34.12		
G60L	DC-G60!L	203	GMF		1038	18.65		
G60S	DC-G60#S	203	GMF		1041	26.67		
G61S	DC-G61#S	203	GMF		1046	23.11		
G62L	DC-G62!L	203	GMF		1048	23.35		
G63L	DC-G63!L	203	GMF		1105	25.19		
G63S	DC-G63#S	203	GMF		1107	26.05		
G64L	DC-G64!L	203	GMF		1111	24.58		
G64S	DC-G64#S	203	GMF		1112	25.50		
G65L	DC-G65!L	203	GMF		0950	19.30		
G65S	DC-G65#S	203	GMF		0932	19.61		
G66L	DC-G66!L	203	GMF		0943	14.49		
G66S	DC-G66#S	203	GMF		0945	15.46		
G67L	DC-G67!L	203	GMF		1001	13.00		
G67S	DC-G67#S	203	GMF		1003	14.12		
G68L	DC-G68!L	203	GMF		0904	12.23		
G68S	DC-G68#S	203	GMF		0906	13.18		
G69L	DC-G69!L	203	GMF		0909	16.00		
G69S	DC-G69#S	203	GMF		0910	18.23		
G70L	DC-G70!L	203	GMF		0914	20.13		
G71L	DC-G71!L	203	GMF		0920	26.11		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G71S	DC-G71#S	203	GMF	10/16/23	0918	26.72		B6
G72L	DC-G72#L	203	GMF		0923	21.40		
G73L	DC-G73#L	203	GMF		0927	27.20		
L103	DC-L103	204	LF		1217	1.91		
OM01	DC-OM01	201-202	AP1/2		1306	13.01		
OM04S	DC-OM04#S	201-202	AP1/2		1057	21.19	OR04S	
OM05S	DC-OM05#S	201-202	AP1/2		1257	22.21		
OM07	DC-OM07	201-202	AP1/2		1245	13.11		
OM08	DC-OM08	201-202	AP1/2		1134	14.96		
OM09	DC-OM09	201-202	AP1/2		1529	4.24		
OM10	DC-OM10	201-202	AP1/2		0918	13.49		
OM12	DC-OM12	201-202	AP1/2		1148	15.89		
OM15	DC-OM15	201-202	AP1/2		0909	22.88		
OM16	DC-OM16	201-202	AP1/2		1044	26.94		
OM17	DC-OM17	201-202	AP1/2		1023	15.26		
OM21	DC-OM21	201-202	AP1/2		1059	12.66		
OM22S	DC-OM22#S	201-202	AP1/2		1333	20.53		
OM22D	DC-OM22&D	201-202	AP1/2		1335	20.08		
OM23S	DC-OM23#S	201-202	AP1/2		1403	42.47		
OM23D	DC-OM23&D	201-202	AP1/2		1407	38.95		
OM24D	DC-OM24&D	201-202	AP1/2		—	—	Not Accessible	
OM25S	DC-OM25#S	201-202	AP1/2		1436	16.20		
OM25D	DC-OM25&D	201-202	AP1/2	—	1440	58.26		—

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OR02	DC-OR02	201-202	AP1/2	10/16/23	1254	7.81		BG
OR03S	DC-OR03#S	201-202	AP1/2		1242	45.92		
OR03D	DC-OR03&D	201-202	AP1/2		1118	45.45		
OR04D	DC-OR04&D	201-202	AP1/2		1055	23.01		
OR05D	DC-OR05&D	201-202	AP1/2		1255	22.98		
OR06A	DC-OR06!A	201-202	AP1/2		1235	15.14		
OR11	DC-OR11	201-202	AP1/2		1218	32.28		
OR13S	DC-OR13#S	201-202	AP1/2		1303	14.72		
OR13D	DC-OR13&D	201-202	AP1/2		1305	14.62		
OR14S	DC-OR14#S	201-202	AP1/2		1113	8.97		
OR14D	DC-OR14&D	201-202	AP1/2		1110	11.79		
OR18	DC-OR18	201-202	AP1/2		1012	19.65		
OR19	DC-OR19	201-202	AP1/2		1142	25.80		
OR20	DC-OR20	201-202	AP1/2		1205	22.30		
P01L	DC-P01!L	204	LF		1439	17.11		
P01S	DC-P01#S	204	LF		1437	16.73		
P01I	DC-P01\$I	204	LF		1441	16.53		
P02S	DC-P02#S	204	LF		1455	18.57		
P04S	DC-P04#S	204	LF		1353	21.43		
P05L	DC-P05!L	204	LF		1318	7.13		
P05S	DC-P05#S	204	LF		1326	7.16		
P05D	DC-P05&D	204	LF		1339	7.10		
P36L	DC-P36!L	204	LF	—	1041	12.64		—

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC

Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P36S	DC-P36#S	204	LF	10/16/23	1043	12.82		BG
P36D	DC-P36&D	204	LF		1040	13.00		
P37L	DC-P37!L	204	LF		1129	14.60	Top of Pump	
P37D	DC-P37&D	204	LF		1131	17.33		
P38L	DC-P38!L	204	LF		1212	19.48		
P38S	DC-P38#S	204	LF		1206	21.00		
P39L	DC-P39!L	204	LF		1248	10.68		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P36S	DC-P36#S	204	LF					
P36D	DC-P36&D	204	LF					
P37L	DC-P37!L	204	LF					
P37D	DC-P37&D	204	LF					
P38L	DC-P38!L	204	LF					
P38S	DC-P38#S	204	LF					
P39L	DC-P39!L	204	LF					
P39S	DC-P39#S	204	LF	10/18/23	1227	10.99		BG
P39D	DC-P39&D	204	LF		1225	16.57		
P40L	DC-P40!L	204	LF		1210	18.53		
P40S	DC-P40#S	204	LF		1211	17.28		
P41L	DC-P41!L	204	LF		1300	11.68		
P41S	DC-P41#S	204	LF		1302	14.00		
P41D	DC-P41&D	204	LF		1304	35.98		
P42L	DC-P42!L	204	LF		1255	10.30	Well Damaged	
P42S	DC-P42#S	204	LF		1132	10.82		
P42I1	DC-P42\$I1	204	LF		1129	11.19	alternate name P42I	
P42I2	DC-P42\$I2	204	LF		1127	33.79		
P42D	DC-P42&D	204	LF		1125	38.59	MW 52L 10/18/23 BG	
P52	DC-P52	203	GMF		1353	18.02	MW 52L	
P57L	DC-P57!L	203	GMF		1103	17.77		
P57S	DC-P57#S	203	GMF		1105	17.39		
P60	DC-P60	203	GMF		1113	26.54		

SAR-3: Episodic Depth to Groundwater Measurements

All DTWs on SAR-3 must be collected within 24 hours.

Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Num	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P61	DC-P61	203	GMF	10/18/23	1121	17.06		BG
P62	DC-P62	203	GMF	1	1117	14.31		
P63	DC-P63	203	GMF	1	1119	16.42		
P64	DC-P64	203	GMF	—	1123	18.23		
R10L	DC-R10!L	204	LF	10/16/23	1427	23.90		
R11L	DC-R11!L	204	LF	10/16/23	1140	23.63		
R13L	DC-R13!L	204	LF	10/18/23	1232	24.36		
R61L	DC-R61!L	203	GMF		1323	22.21		
R72S	DC-R72#S	203	GMF	1	1318	24.70		
T43L	DC-T43!L	204	LF		1244	8.70		
T44L	DC-T44!L	204	LF		1246	12.64		
T45L	DC-T45!L	204	LF		1247	10.62		
T46L	DC-T46!L	204	LF		1250	7.47		
X301	DC-X301-leachate	203	GMF		1313	40.5		
XTPW02	DC-XTPW02-pore	203	GMF	—	1348	6.85	Dry	

BA02L

10/18/23-1330-11.31

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs recorded on SAR-4 must be measured immediately prior to downloading the transducer data at that location.
Plant: DC
Event: DC-23Q4 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 Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	10/16/23	1435	16.25	21615533	Y	—	—	—	NOT connected	BC
BA02	DC-BA02	205	BAB		1423	13.03	21615636	Y	—	—	—	NOT connected	
BA02L	DC-BA02IL	205	BAB		1425	PUMP	21615682	Y	00.01	Y	H		
BA03	DC-BA03	205	BAB		1324	11.06	21615637	Y	—	—	—	NOT connected	
BA03L	DC-BA03IL	205	BAB		1326	10.85	21615687	Y	508.37	Y	M	Below Pump	
BA04	DC-BA04	205	BAB		1442	7.75	21615631	Y	—	—	—	NOT connected	
BA05	DC-BA05#	205	BAB		1506	26.60	21615540	Y	572.70	Y	M		
BA06	DC-BA06	205	BAB		1508	24.70	21615525	Y	571.06	Y	M		
G02S	DC-G02#S	204	LF		1449	14.23	21615554	Y	—	—	—	NOT connected	
G50S	DC-G50#S	203	GMF		1131	18.80	21615535	Y	604.91	Y	M		
G51S	DC-G51#S	203	GMF		1144	19.81	21615691	Y	599.96	Y	M		
G54L	DC-G54IL	203	GMF		1158	21.89	21615690	Y	600.98	Y	M		
G54S	DC-G54#S	203	GMF		1154	28.00	21615684	Y	599.83	Y	M		
G57S	DC-G57#S	203	GMF		1422	24.86	21615683	Y	597.83	Y	M		
G60L	DC-G60IL	203	GMF		1438	18.65	21615678	Y	596.69	Y	M		
G60S	DC-G60#S	203	GMF		1441	26.67	21615677	Y	586.02	Y	H		
G64L	DC-G64IL	203	GMF		1110	24.58	21615688	Y	622.77	Y	M		
G64S	DC-G64#S	203	GMF		1112	25.50	21615632	Y	599.02	Y	M		

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs recorded on SAR-4 must be measured immediately prior to downloading the transducer data at that location.
Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	Does Data Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)	Comments	Initials
OM01	DC-OM01	201-AP1/202-2	AP1/2	10/16/23	1306	13.01	21615685	Y	582.15	Y	M		BG
OM04S	DC-OM04#S	201-AP1/202-2	AP1/2		1057	21.19	21615542	Y	586.09	Y	H		
OM07	DC-OM07	201-AP1/202-2	AP1/2		1245	13.11	21615541	Y		Y			
OM12	DC-OM12	201-AP1/202-2	AP1/2		1148	15.89	21615527	Y	577.30	Y	H		
OM16	DC-OM16	201-AP1/202-2	AP1/2		1044	26.94	21615539	Y		Y	/	Not Connected	
OM17	DC-OM17	201-AP1/202-2	AP1/2		1023	15.26	21615693	Y		Y	/	Not Connected	
OM21	DC-OM21	201-AP1/202-2	AP1/2		1059	12.66	21615593	Y	9.42	Y	H		
OM22D	DC-OM22&D	201-AP1/202-2	AP1/2		13.35	20.08	21615592	Y	578.88	Y	M		
OM23D	DC-OM23&D	201-AP1/202-2	AP1/2		1407	38.95	21615591	Y		Y	/	Not Connected	
OM24D	DC-OM24&D	201-AP1/202-2	AP1/2				21615522				/	Inaccessible	
OM25S	DC-OM25#S	201-AP1/202-2	AP1/2		1436	58.20	21615681	Y		Y	/	Not Connected	
OR02	DC-OR02	201-AP1/202-2	AP1/2		1254	7.81	21615679	Y	543.42	Y	M		
OR03D	DC-OR03&D	201-AP1/202-2	AP1/2		1244	45.45	21615577	Y	582.75	Y	M		
OR04D	DC-OR04&D	201-AP1/202-2	AP1/2		1055	21.87	21615570	Y	585.76	Y	H		
OR06A	DC-OR06/A	201-AP1/202-2	AP1/2		1235	15.14	21615692	Y		Y	/	Not Connected	
OR11	DC-OR11	201-AP1/202-2	AP1/2		1218	32.28	21615686	Y	564.14	Y	M		
OR13S	DC-OR13#S	201-AP1/202-2	AP1/2		1303	14.72	21615676	Y		Y	/	Not Connected	
OR13D	DC-OR13&D	201-AP1/202-2	AP1/2		1305	14.62	21564135				/	Wings	

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All DTWs recorded on SAR-4 must be measured immediately prior to downloading the transducer data at that location.
Plant: DC
Event: DC-23Q4 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 Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-AP1/ 202 2		10/16/23	1110	11.79	21615611	Y	587.01	Y	H		AG
OR19	DC-OR19	201-AP1/ 202 2		L	1142	25.80	21615634	Y	571.80	Y	M		
OR20	DC-OR20	201-AP1/ 202 2		L	1205	22.30	21615610	Y	565.16	Y	M		L

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

Duck Creek

WELL/SAMPLE POINT G06S

Purge Method: Dedicated pump

Date: 10/27/2023 Start Time: 1250 Finish/Sample Time: 1310

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

Depth to Water From MP: 23.05 ft Total Purge Volume: 1000 Gal / L (ML)

Water Column Length: — ft Max Drawdown: — ft

Well Water Volume: ✓ Gal / L Total Drawdown: 0.00 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	1303	23.05	100	7.03	911	15.28	151	10.90	>1000
2	1305	23.05	100	7.02	919	15.22	151	10.73	>1000
3	1307	23.05	100	7.02	922	15.10	151	10.72	>1000
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, 250 mL)

①

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 23.05 ft

Comments lots of sediment (silt/mud like) in well

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT G12S

Purge Method: Dedicated Pump

Date: 10/27/2023 Start Time: 1202 Finish/Sample Time: 1221

Well Depth (Bottom) From MP: ~ ft
Min. Purge Volume: ~ Gal / L
Depth to Water From MP: 25.60 ft
Total Purge Volume: 1000 Gal / L (ml)
Water Column Length: ~ ft
Max Drawdown: ~ ft
Well Water Volume: ~ Gal / 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	1214	26.70	100	7.41	666	15.16	-109	3.30	23.8
2	1216	26.70	100	7.40	667	15.10	-112	3.27	33.7
3	1218	26.70	100	7.41	667	15.06	-111	3.20	31.4
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
<u>1</u>	General (P, 250mL) <u>150mL</u>

(1)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 26.70 ft

Comments

Sampler's Signature:

[Signature]

Duck Creek

WELL/SAMPLE POINT G15S

Purge Method: De-scaled Bradder

Date: 10/21/2023 Start Time: 1041 Finish/Sample Time: 1103

Well Depth (Bottom) From MP: 10/27/23 12110/23 12110/23 ft

Depth to Water From MP: 34.70 ft

Water Column Length: _____ ft

Well Water Volume: _____ Gal / (1)

Min. Purge Volume: _____ Gal / L

Total Purge Volume: 1000 Gal / L (me)

Max Drawdown: _____ ft

Total Drawdown: 0.82 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	1053	35.50	100	7.18	707	16.14	230	6.43	19.1
2	1055	35.50	100	7.17	710	16.15	231	5.78	12.9
3	1057	35.50	100	7.13	712	16.13	233	5.69	11.0
4	1059	35.52	100	7.11	715	16.16	233	5.60	9.9
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: 11016a

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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Casing locked/secure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well cap fits securely.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Good seal/drainage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well has weep holes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)
1	General (P, 250mL) 150 mL

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Final DTW: 35.52 ft

Comments

Sampler's Signature: [Signature]

Duck Creek

WELL/SAMPLE POINT L103

Purge Method: ba/le

Date: 10/20/2023 Start Time: 1407 Finish/Sample Time: 1420

Depth to Water From MP: 1.52 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	1414	1.52	—	8.43	4845.8	17.71	111.3	3.92	1.37

Field Meter:

A1600

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		<input checked="" type="checkbox"/>
Casing locked/secure		<input checked="" type="checkbox"/>
Well cap fits securely.		<input checked="" type="checkbox"/>
Good seal/drainage		<input checked="" type="checkbox"/>
Well has weep holes		<input checked="" type="checkbox"/>

BOTTLE INFORMATION:

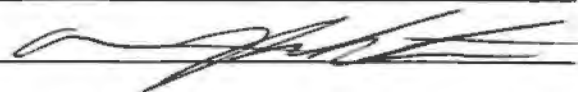
Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, 250mL) 1000mL
1	Ammonia (P, 250mL, H2SO4)

5

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
	General (P,500mL)

Comments

Sampler's Signature:



Multiparameter Meter Field Calibration Checklist

Field Personnel: LR JR				Location: DUCK CREEK					
Weather: 44°-66° Sunny NW 1mph				Environment: GRASS, TREE, BUSHES, GRAVEL					
Multiparameter Water Meter		Make: HORIBA	Model: V-5000	Serial Number: PW 26YJD3					
Water Level Meter		Make: Heron	Model: Digger-T	Serial Number: 3717-T					
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	NA	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.91	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0-25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1750	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NA	NA	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	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25	
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24	
pH 10.00b	9.87	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25	
SC 1000	1000	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24	

Approx. every 4 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	3.98	s.u.	±0.1 s.u.	P	NA	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	NA	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	—	MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%	P	NA	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P	NA	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	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: 	Date: 10/17/23
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>			Location: <u>Vistra Duck Creek</u>		
Weather: <u>50-70°F part cloudy wind 9-17 mph</u>			Environment: <u>grassy</u>		
Multiparameter Water Meter		Make: <u>Haniba</u>	Model: <u>V5000</u>	Serial Number: <u>PW2GYJD3</u>	
Water Level Meter		Make: <u>Heron</u>	Model: <u>Series 1A00</u>	Serial Number: <u>19FF211192HB</u>	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.30</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2.000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	3GA1071	Jan-24
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.0</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>940</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.07</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>7.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>9.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>998.1</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1550</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	/	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.05</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		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: <u>Joseph A Reed</u>	Date: <u>10/18/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reed</u>				Location: <u>Duck Creek Power - Wistra</u>			
Weather: <u>Rain 55-60°F Wind 9-13 mph</u>				Environment: <u>Grassy</u>			
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U5000</u>	Serial Number: <u>PW2645D3</u>			
Water Level Meter		Make: <u>Heron</u>	Model: <u>Series 1100</u>	Serial Number: <u>11FF 2209305ML</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2020</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	3GA1071	Jan-24
ORP	<u>240</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.5</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>930</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>3.96</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	May-24	
pH 7.00b	<u>6.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>9.99</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>995.8</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4209A12	<u>Aug 24</u>	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1320</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC 1000	<u>1000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4209A12	<u>Aug 24</u>
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		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	<u>Aug 24</u>
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: <u>Joe Reed</u>	Date: <u>10/19/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan Ross</u>				Location: <u>DUCK CREEK</u>					
Weather: <u>Sunny 47°-68° 10mph NW</u>				Environment: <u>GRASS, WOODLAND GRAVEL</u>					
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>U-5000</u>	Serial Number: <u>PW264JD3</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>D-1000</u>	Serial Number: <u>19FF211192HB</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.06</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	023051-02	2/21/2025
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0</u>	µS/cm	0<25 µS/cm	<u>P</u>			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2014</u>	µS/cm	±5%	<u>P</u>			Geotech	3GF1197	Jun-24
ORP	<u>247</u>	mV	±15 mV	<u>P</u>			InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0</u>	mg/L	±0.1	<u>P</u>			Macron	#000228049	8/26/2025
DO (Saturated)	<u>99</u>	%	97-100%	<u>P</u>			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)				Time: <u>0930</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.08</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>7.14</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>9.17</u>	s.u.	±0.15 s.u.	<u>F</u>	<u>CAL 10.00</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>960</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time: <u>1447</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NA</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.92</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>P</u>			MSI	022361-01	12/27/2024
SC 1000	<u>1040</u>	µS/cm	±5%	<u>P</u>			Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>			Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NA</u>	<u>NA</u>	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: <u>[Signature]</u>	Date: <u>10-20-23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton			Location:	Duck Creek				
Weather:	57° - 64° sunny wind NW 12 mph			Environment:	grass, dirt				
Multiparameter Water Meter	Make:	A7	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Horan	Model:	D.M.17	Serial Number:	3717-7			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.15	s.u.	±0.1 s.u.	P	YES	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	YES	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.35	s.u.	±0.1 s.u.	P	YES	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	1.42	µS/cm	0<25 µS/cm	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1079.7	µS/cm	±5%	P	NO	-	Geotech	3GF1197	Jun-24
ORP	245.8	mV	±15 mV	P	NO	-	InSitu	3GD927	Jan-24
DO (Zero pt)	0.10	mg/L	±0.1	P	NO	-	Macron	#000228049	8/26/2025
DO (Saturated)	97.72	%	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

ICV (Initial Calibration Verification)					Time:	0941			
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	6.92	s.u.	±0.15 s.u.	P	-	Geotech	2GF113	Jun-24	
pH 10.00b	10.98	s.u.	±0.15 s.u.	P	-	Geotech	3GA1134	Jan-25	
SC 1000	108.1	µS/cm	±5%	P	-	Ricca	4209A12	Aug-24	

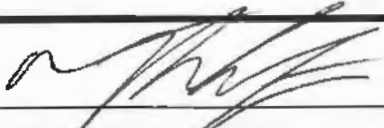
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1445			
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	10.98	s.u.	±0.1 s.u.	P	NO	-	MSI	022361-01	12/27/2024
SC 1000	1087.36	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)	0.08	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:	10/20/2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remberhan			Location:	Duck Creek				
Weather:	52°-75°P Sunny Wind SE 12 mph			Environment:	grass, woods, farm field				
Multiparameter Water Meter	Make:	AT	Model:	600	Serial Number:	762215			
Water Level Meter	Make:	Heron	Model:	Dipnet	Serial Number:	3717-7			
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	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	10.07	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.81	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020.1	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242.8	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.73	%	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 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	242 @ 158			
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/A	Geotech	3GB1049	Feb-25	
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24	
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25	
SC 1000	1006.6	µS/cm	±5%	P		Ricca	4209A12	Aug-24	

Approx. every 4 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	4.08	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	10.09	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	998.34	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	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:		Date:	10/23/2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan Ross</u>				Location: <u>DUCK CREEK</u>			
Weather: <u>Sunny 59-74° 13 mph S</u>				Environment: <u>GRASS WOODS, GRAVEL</u>			
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>V-5000</u>	Serial Number: <u>PW26YJD3</u>			
Water Level Meter		Make: <u>HEBO</u>	Model: <u>1900</u>	Serial Number: <u>19FF2202</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	-	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.79</u>	s.u.	±0.1 s.u.	<u>F</u>	<u>6.98</u>	<u>Y</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.90</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	-	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>NO</u>	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1970</u>	µS/cm	±5%	<u>P</u>	<u>NO</u>	-	Geotech	3GF1197	Jun-24
ORP	<u>241</u>	mV	±15 mV	<u>P</u>	<u>NO</u>	-	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1	<u>P</u>	<u>NO</u>	-	Macron	#000228049	8/26/2025
DO (Saturated)	<u>100</u>	%	97-100%	<u>P</u>	<u>NO</u>	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>NO</u>	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0850</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>3.93</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech	3GB1049	Feb-25
pH 7.00b	<u>7.07</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.15</u>	s.u.	±0.15 s.u.	<u>P</u>	-	Geotech	3GA1134	Jan-25
SC 1000	<u>997</u>	µS/cm	±5%	<u>P</u>	-	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1616</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.92</u>	s.u.	±0.1 s.u.	<u>P</u>	-	-	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	-	-	MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	-	-	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	-	-	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	-	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	
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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: <u>Logan Ross</u>	Date: <u>10/23/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remberton			Location:	Duck creek				
Weather:	67°-77° mostly sunny w/ some SW 12 mph			Environment:	woods, grass, dirt, gravel				
Multiparameter Water Meter	Make:	Horsbon	Model:	US000	Serial Number:	PV26Y503			
Water Level Meter	Make:	Heron	Model:	Differ 7	Serial Number:	3717-7 PV26Y503A 10/24/23			
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	7.04	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.06	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	2000	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	237	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.5	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:	0915			
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/A	Geotech	3GB1049	Feb-25	
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24	
pH 10.00b	10.09	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25	
SC 1000	1010	µS/cm	±5%			Ricca	4209A12	Aug-24	

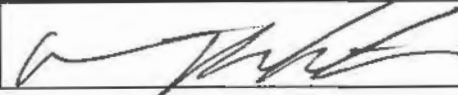
Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:	1513			
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	10.09	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)	0.09	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

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:	10/24/2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Amberlon			Location:	Duck Creek				
Weather:	62°-72° Cloudy Rain w/ a SW breeze			Environment:	Woods, grass, gravel, dirt				
Multiparameter Water Meter	Make:	Horiba	Model:	US000	Serial Number:	PV268503			
Water Level Meter	Make:	Heron	Model:	Digport	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	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	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 Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	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:	0915		
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/A	Geotech	3GB1049	Feb-25	
pH 7.00b	6.89	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	1000	µS/cm	±5%	P		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	4.07	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			MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	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:		Date:	10/25/2023
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>		Location: <u>Duck Creek</u>	
Weather: <u>64° - 70° cloudy, rain wind S 10mph</u>		Environment: <u>woods, mud, grass</u>	
Multiparameter Water Meter	Make: <u>Fluor: 64</u>	Model: <u>VS000</u>	Serial Number: <u>WUG83C85</u>
Water Level Meter	Make: <u>Hean</u>	Model: <u>Dipart</u>	Serial Number: <u>3717-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2030</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GF1197	Jun-24
ORP	<u>234</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.2</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>0915</u>				
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.03</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>6.87</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>9.92</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>1010</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1547</u>				
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.03</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.04</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1030</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
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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: <u>[Signature]</u>	Date: <u>10/26/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: Logan Ross				Location: DUCK CREEK			
Weather: 70°-84° CLOUDY/RAIN 9 mph S				Environment: Grass WOODLAND GRAVEL			
Multiparameter Water Meter		Make: HORIBA	Model: V5000	Serial Number: PW26YJD3			
Water Level Meter		Make: HERRON	Model: diaper-T	Serial Number: 11FF2209305ML			

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	—	—	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	—	—	MSI	023051-02	2/21/2025
pH 10.00a	9.53	s.u.	±0.1 s.u.	F	Y	9.99	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	1999	µS/cm	±5%	P	—	—	Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV	P	—	—	InSitu	3GD927	Jan-24
DO (Zero pt)	.23	mg/L	±0.1	F	Y	0.0	Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%	P	—	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	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: 0908			
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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	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25
SC 1000	1050	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
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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	—	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.82	s.u.	±0.1 s.u.	P	—	NA	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	—	NA	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	—	NA	Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	—	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	—	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time:			
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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: 10/26/23
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Logan Ross

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Brendan Glennon</u>				Location: <u>Duck Creek PS</u>					
Weather: <u>65° Cloudy 9 Mph NNE</u>				Environment: <u>Grass Field</u>					
Multiparameter Water Meter		Make: <u>Horiba</u>	Model: <u>U-5000</u>	Serial Number: <u>WUG 83C85</u>					
Water Level Meter		Make: <u>Heron</u>	Model: <u>Digger-T</u>	Serial Number: <u>11FF2209 305ML</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC Zero (DI)	<u>8</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2040</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Geotech	3GA1071	Jan-24
ORP	<u>233</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>N/A</u>	InSitu	264762	Jan-23
DO (Zero pt)	<u>0.08</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>1.00</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: <u>1030</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE870	Mar-24	
pH 7.00b	<u>7.06</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GC931	Mar-24	
pH 10.00b	<u>10.04</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GE820	May-24	
SC 1000	<u>1030</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4207N97	Jul-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1423</u>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.03</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L344-09	12/14/2023
pH 7.00a	<u>6.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	L343-07	12/9/2023
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>N/A</u>	MSI	M082-04	3/25/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>N/A</u>	Ricca	4207N97	Jul-24
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>N/A</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>N/A</u>	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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-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: <u>Brendan Glennon</u>	Date: <u>10/26/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <i>Aaron Penabaz</i>		Location: <i>Duck Creek</i>	
Weather: <i>68°-71° & cloudy with SW wind</i>		Environment: <i>grass, mud</i>	
Multiparameter Water Meter	Make: <i>Horiba</i>	Model: <i>US000</i>	Serial Number: <i>WUG63685</i>
Water Level Meter	Make: <i>Heron</i>	Model: <i>D-1000</i>	Serial Number: <i>3717-7</i>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<i>4.05</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023067-01	3/14/2025
pH 7.00a	<i>6.92</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023051-02	2/21/2025
pH 10.00a	<i>10.01</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	022361-01	12/27/2024
SC Zero (DI)	<i>0.0</i>	µS/cm	0<25 µS/cm	<i>P</i>	<i>NO</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<i>2010</i>	µS/cm	±5%	<i>P</i>	<i>NO</i>	<i>N/A</i>	Geotech	3GF1197	Jun-24
ORP	<i>231</i>	mV	±15 mV	<i>P</i>	<i>NO</i>	<i>N/A</i>	InSitu	3GD927	Jan-24
DO (Zero pt)	<i>0.04</i>	mg/L	±0.1	<i>P</i>	<i>NO</i>	<i>N/A</i>	Macron	#000228049	8/26/2025
DO (Saturated)	<i>98.7</i>	%	97-100%	<i>P</i>	<i>NO</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>P</i>	<i>NO</i>	<i>N/A</i>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)					Time: <i>0930</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<i>4.01</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>NO</i>	Geotech	3GB1049	Feb-25	
pH 7.00b	<i>6.85</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>NO</i>	Geotech	2GF113	Jun-24	
pH 10.00b	<i>9.89</i>	s.u.	±0.15 s.u.	<i>P</i>	<i>NO</i>	Geotech	3GA1134	Jan-25	
SC 1000	<i>1000</i>	µS/cm	±5%	<i>P</i>	<i>NO</i>	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <i>1530</i>				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<i>4.04</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023067-01	3/14/2025
pH 7.00a	<i>7.08</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	023051-02	2/21/2025
pH 10.00a	<i>10.04</i>	s.u.	±0.1 s.u.	<i>P</i>	<i>NO</i>	<i>N/A</i>	MSI	022361-01	12/27/2024
SC 1000	<i>1030</i>	µS/cm	±5%	<i>P</i>	<i>NO</i>	<i>N/A</i>	Ricca	4209A12	Aug-24
DO (Zero pt)	<i>0.04</i>	mg/L	±0.1 mg/L	<i>P</i>	<i>NO</i>	<i>N/A</i>	Macron	#000228049	8/26/2025
Turbidity (DI)	<i>0.0</i>	NTU	<2 NTU	<i>P</i>	<i>NO</i>	<i>N/A</i>	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: <i>[Signature]</i>	Date: <i>10/27/2023</i>
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DS

Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan Ross</u>				Location: <u>DUCK CREEK</u>			
Weather: <u>36-69 CLOUDY/RAIN 8m/s</u>				Environment: <u>GRASSLAND, WOODLAND</u>			
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>L-5000</u>	Serial Number: <u>PW 264JD3</u>			
Water Level Meter		Make: <u>Herron</u>	Model: <u>Dipper-T</u>	Serial Number: <u>11FF2209305ML</u>			

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.10</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.96</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.07</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.002</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2080</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>NA</u>	Geotech	3GF1197	Jun-24
ORP	<u>238</u>	mV	±15 mV	<u>P</u>	<u>N</u>	<u>NA</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.04</u>	mg/L	±0.1	<u>P</u>	<u>N</u>	<u>NA</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.9</u>	%	97-100%	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs; unless only one well

ICV (Initial Calibration Verification)						Time: <u>0918</u>			
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.09</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>7.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.13</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>979</u>	µS/cm	±5%	<u>P</u>	<u>NA</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs; unless only one well

CCV (Continued Calibration Verification):						Time: <u>1523</u>			
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.08</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.98</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>	<u>NA</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	<u>NA</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>	<u>NA</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>1.7</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>	<u>NA</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs; unless only one well

CCV (Continued Calibration Verification):						Time:			
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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: <u>[Signature]</u>	Date: <u>10/27/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Joe Reel</u>			Location: <u>Duck Creek Power</u>		
Weather: <u>cloudy/rain</u>			Environment: <u>wet grassy</u>		
Multiparameter Water Meter	Make: <u>Hanba</u>	Model: <u>V5000</u>	Serial Number: <u>Y29 KJ 9HA</u>		
Water Level Meter	Make: <u>Herm</u>	Model: <u>Series 1000</u>	Serial Number: <u>19FF-211192#B</u>		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Geotech	3GF1197	Jun-24
ORP	<u>241</u>	mV	±15 mV	<u>P</u>	<u>N</u>		InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
DO (Saturated)	<u>99.0</u>	%	97-100%	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>1020</u>		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>3.97</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>6.98</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.00</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1530</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023067-01	3/14/2025
pH 7.00a	<u>7.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	023051-02	2/21/2025
pH 10.00a	<u>10.00</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>N</u>		MSI	022361-01	12/27/2024
SC 1000	<u>1010</u>	µS/cm	±5%	<u>P</u>	<u>N</u>		Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.01</u>	mg/L	±0.1 mg/L	<u>P</u>	<u>N</u>		Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>P</u>	<u>N</u>		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: <u>Joseph R. Reel</u>	Date: <u>10/27/23</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Aaron Pemberton</u>		Location: <u>Duck Creek</u>	
Weather: <u>35°-41° sunny</u> <u>wind NW 11mph</u>		Environment: <u>grass, mud, gravel</u>	
Multiparameter Water Meter	Make: <u>AT</u>	Model: <u>600</u>	Serial Number: <u>606127</u>
Water Level Meter	Make: <u>Heron</u>	Model: <u>Dipart</u>	Serial Number: <u>3117-7</u>

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.11</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>4.00</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.09</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>7.02</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.11</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>yes</u>	<u>10.01</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>12.0</u>	µS/cm	0<25 µS/cm	<u>P</u>	<u>no</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>2000</u>	µS/cm	±5%	<u>P</u>	<u>no</u>	<u>-</u>	Geotech	3GF1197	Jun-24
ORP	<u>235.7</u>	mV	±15 mV	<u>P</u>	<u>no</u>	<u>-</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1	<u>P</u>	<u>no</u>	<u>-</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>98.45</u>	%	97-100%	<u>P</u>	<u>no</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>P</u>	<u>no</u>	<u>-</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

235 @ 20°C

ICV (Initial Calibration Verification)					Time: <u>1000</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	<u>4.02</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>NA</u>	Geotech	3GB1049	Feb-25
pH 7.00b	<u>7.06</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>I</u>	Geotech	2GF113	Jun-24
pH 10.00b	<u>10.03</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	3GA1134	Jan-25
SC 1000	<u>10.10</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: <u>1500</u>	
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Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.05</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>no</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.02</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>10.08</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>10.12</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.09</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.00</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	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: <u>[Signature]</u>	Date: <u>10/30/2023</u>
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Multiparameter Meter Field Calibration Checklist

Field Personnel: <u>Logan R</u>				Location: <u>DUCK CREEK</u>					
Weather: <u>Sunny 26°-41° 11mph NW</u>				Environment: <u>GRASSLAND, WOODLAND</u>					
Multiparameter Water Meter		Make: <u>HORIBA</u>	Model: <u>V-5000</u>	Serial Number: <u>PW 264 JD3</u>					
Water Level Meter		Make: <u>HERRON</u>	Model: <u>dipper-T</u>	Serial Number: <u>11F12209305ML</u> <u>19FE211192HB</u>					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>4.89</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>6.93</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>7.99</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC Zero (DI)	<u>0.000</u>	µS/cm	0<25 µS/cm	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	<u>1770</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Geotech	3GF1197	Jun-24
ORP	<u>239</u>	mV	±15 mV	<u>I</u>	<u>I</u>	<u>I</u>	InSitu	3GD927	Jan-24
DO (Zero pt)	<u>0.0</u>	mg/L	±0.1	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
DO (Saturated)	<u>97.6</u>	%	97-100%	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)						Time: <u>0900</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.	
pH 4.00b	<u>4.11</u>	s.u.	±0.15 s.u.	<u>P</u>	<u>N/A</u>	Geotech	3GB1049	Feb-25	
pH 7.00b	<u>7.02</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	2GF113	Jun-24	
pH 10.00b	<u>10.07</u>	s.u.	±0.15 s.u.	<u>I</u>	<u>I</u>	Geotech	3GA1134	Jan-25	
SC 1000	<u>967</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24	

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):						Time: <u>1516</u>			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	<u>3.99</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>NO</u>	<u>N/A</u>	MSI	023067-01	3/14/2025
pH 7.00a	<u>7.01</u>	s.u.	±0.1 s.u.	<u>P</u>	<u>I</u>	<u>I</u>	MSI	023051-02	2/21/2025
pH 10.00a	<u>9.96</u>	s.u.	±0.1 s.u.	<u>I</u>	<u>I</u>	<u>I</u>	MSI	022361-01	12/27/2024
SC 1000	<u>1020</u>	µS/cm	±5%	<u>I</u>	<u>I</u>	<u>I</u>	Ricca	4209A12	Aug-24
DO (Zero pt)	<u>0.00</u>	mg/L	±0.1 mg/L	<u>I</u>	<u>I</u>	<u>I</u>	Macron	#000228049	8/26/2025
Turbidity (DI)	<u>0.0</u>	NTU	<2 NTU	<u>I</u>	<u>I</u>	<u>I</u>	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: <u>[Signature]</u>	Date: <u>10/30/23</u>
-------------------------------	-----------------------

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Amberlan			Location:	Duck Creek				
Weather:	32-40° Sunny Wind NW 15mph			Environment:	Grass, mud				
Multiparameter Water Meter	Make:	Hanna	Model:	U 5000	Serial Number:	60583085			
Water Level Meter	Make:	Herm	Model:	Dipper 7	Serial Number:	3717-7			
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	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	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	230	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	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 4 hrs, unless only one well

237 @ 10/9/23

ICV (Initial Calibration Verification)						Time:	0910		
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/A	Geotech	3GB1049	Feb-25	
pH 7.00b	6.88	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24	
pH 10.00b	10.10	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25	
SC 1000	1030	µS/cm	±5%			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	4.04	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			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	987	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.04	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)

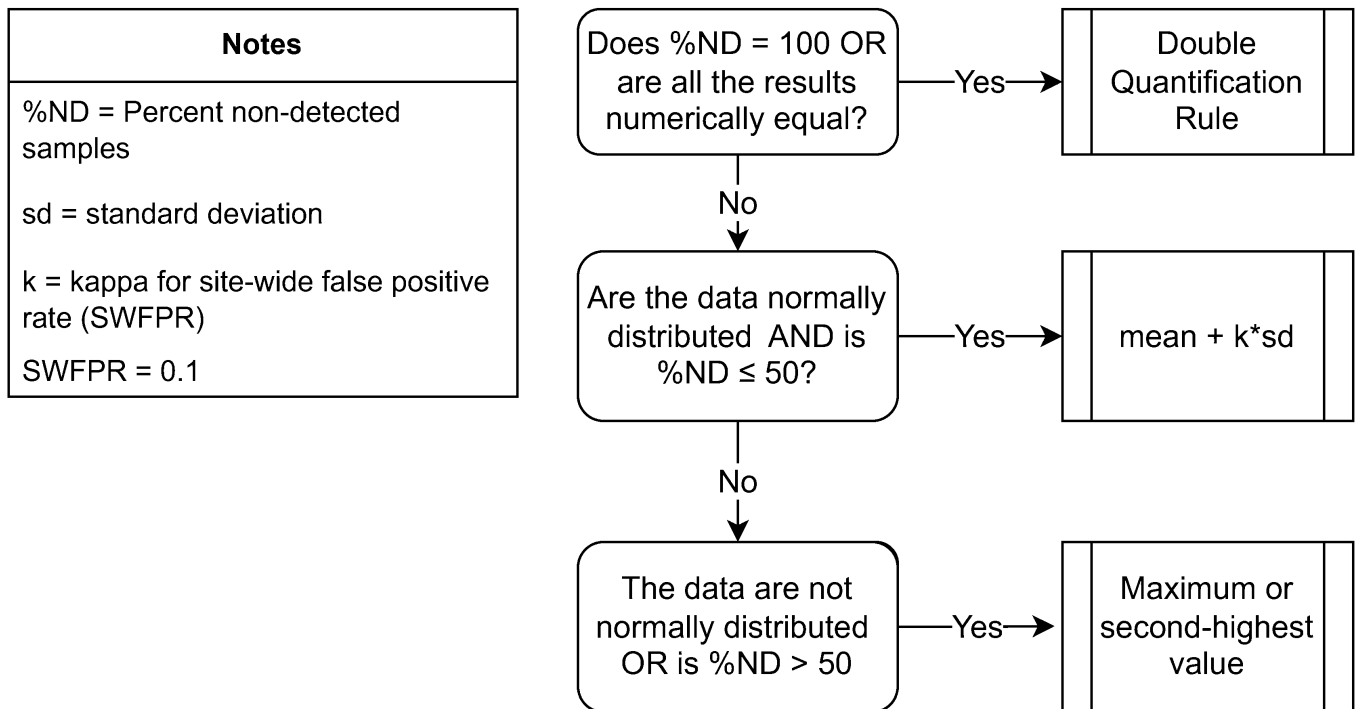
Comments:

Signature:		Date:	10/31/2023
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OG

Multiparameter Meter Field Calibration Checklist									
Field Personnel: Joe Reed				Location: Duck Creek					
Weather: 40-61°F Partly cloudy				Environment: Grassy					
Multiparameter Water Meter		Make: Horiba	Model: U5000	Serial Number: Y29KJ9HA					
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	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	0.01	µS/cm	0<25 µS/cm	P	N		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	N		Geotech	3GF1197	Jun-24
ORP	241	mV	±15 mV	P	N		InSitu	3GD927	Jan-24
DO (Zero pt)	0.01	mg/L	±0.1	P	N		Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	97-100%	P	N		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.1	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: 9:45			
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	6.99	s.u.	±0.15 s.u.	P	N	Geotech	2GF113	Jun-24	
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	N	Geotech	3GA1134	Jan-25	
SC 1000	1010	µS/cm	±5%	P	N	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		MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	N		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	N		Ricca	4209A12	Aug-24
DO (Zero pt)	0.02	mg/L	±0.1 mg/L	P	N		Macron	#000228049	8/26/2025
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									
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: 11/3/23					

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

August 14, 2023

Project Number

1940103649-005

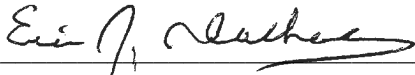
**40 C.F.R. § 257.94(E)(2): ALTERNATE
SOURCE DEMONSTRATION
DUCK CREEK POWER PLANT
LANDFILL
CCR UNIT 204**



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: August 14, 2023



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: August 14, 2023



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TABLES (IN TEXT)

Table A	Summary Statistics for Boron and Sulfate in Compliance wells with D12 SSIs (December 2015 to January 2023).
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FIGURES (IN TEXT)

Figure A	Piper Diagram Showing Ionic Composition of Groundwater Samples and Leachate Associated with the Landfill.
Figure B	Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

FIGURES (ATTACHED)

Figure 1	Potentiometric Surface Map – January 9 and 16, 2023
Figure 2	Coal Mine Coverage Area

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	Alternate Source Demonstration
bgs	below ground surface
BTU	British Thermal Unit
CCR	coal combustion residuals
CCR Rule	40 C.F.R. § 257 Subpart D
D12	Detection Monitoring Round 12
DCPP	Duck Creek Power Plant
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
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SSI	Statistically Significant Increase
TDS	total dissolved solids
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 (SSIs) over background concentrations 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 (Alternate 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) Landfill located near Canton, Illinois.

The twelfth semi-annual detection monitoring samples (Detection Monitoring Round D12 [D12]) were collected between January 11 through January 16, 2023, and analytical data were received on February 15, 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 May 16, 2023, within 90 days of receipt of the analytical data. The statistical determination identified the following SSIs at compliance monitoring wells:

- pH at well G12S
- Total dissolved solids (TDS) at well G06S

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 SSI remained:

- pH at well G12S

Pursuant to 40 C.F.R. § 257.94(e)(2), the following lines of evidence (LOEs) demonstrate that sources other than the Landfill were the cause of the SSIs listed above. This ASD was completed by August 14, 2023, within 90 days of determination of the SSIs (May 16, 2023), as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The DCPD is in Fulton County, located in central Illinois, approximately 9 miles southeast of the town of Canton. The Landfill is located approximately 3.5 miles north of the power plant. Surface waters in the area include the Duck Creek Cooling Pond to the east, which was used as a source of cooling water for the plant, and various small ponds, some of which are remnants of the area's surface mining history. Prior to construction of the power plant and associated facilities, strip mining of coal took place within the boundaries of the DCPD, specifically on land in the immediate vicinity of the Landfill.

2.2 Geology and Hydrogeology

The DCPD geology and hydrogeologic setting summarized below is excerpted from the Hydrogeologic Monitoring Plan (Natural Resource Technology, an OBG Company [NRT/OBG], 2017).

2.2.1 Geology

Regionally, the DCPD 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; 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. Bedrock in the area is identified as Pennsylvanian-age shale deposits and 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 Wisconsinan glaciations. The Uppermost Aquifer beneath the Landfill is comprised of the following unlithified water-bearing units (beginning at the ground surface):

- Loess Zone – Moderate to high permeability silts and clayey silts, including the Peoria and Roxanna Silt (Loess Units); underlain by the low permeability clayey diamictons of the Berry Clay and upper Radnor Till Members of the Glasford Formation.
- Shallow Sand Unit – Thin to moderately thick (0.3 to 10 feet), moderate to high permeability, medium-grained sand to silt with intercalated till seams; underlain by till sequences of the lower Radnor Till Member of the Glasford Formation.
- Intermediate Sand 1 – This unit is located at the southern-most part of the Landfill as intercalated sand units within the Lower Radnor till between the Shallow and Deep Sand Units. This unit is typically a fine- to medium-grained sand and varies from 1.7 to 5.8 feet thick.

2.2.2 Hydrogeology

The Uppermost Aquifer in the area consists of the Loess, Shallow Sand, and Intermediate Sand 1. These hydraulically connected units are underlain by the Radnor Till Member of the Glasford Formation.

Groundwater elevations (referenced to North American Vertical Datum of 1988 [NAVD88]) in the Uppermost Aquifer across the Landfill are shown on **Figure 1**. Groundwater elevations were measured on January 9th and 16th, 2023, during a combined D12 sampling event at the DCPD for the CCR units located there, and for multiple monitoring programs required by both federal and state regulatory agencies. Due to the number of monitoring wells at the DCPD, some of the wells associated with the Landfill monitoring system were sampled a few days after the groundwater elevations were measured. Groundwater elevations ranged from 590.37 to 612.46 feet and overall groundwater flow within the Uppermost Aquifer under the Landfill was west to east with components of flow to the northeast and southeast.

2.3 Groundwater Monitoring

The CCR Rule groundwater monitoring system for the Landfill is shown on **Figure 1**. Monitoring wells G02S and G04S are used to monitor background groundwater quality for the Landfill. These wells are located south (G02S) and southwest (G04S) of the Landfill. The compliance wells are G06S, G09S, G12S, and G15S.

3. ALTERNATE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the Landfill (the CCR unit) caused the SSIs. LOEs supporting this ASD include the following:

1. Concentrations of boron and sulfate are below background concentrations in compliance wells.
2. Proximity of the Landfill to historical mining activity and related groundwater quality impacts.

These LOEs are described and supported in greater detail below.

3.1 LOE #1: Concentrations of Boron and Sulfate are Below Background Concentrations in Compliance Wells

Boron and sulfate are indicators of CCR impacts to groundwater due to their leachability from CCR, low occurrence as an anthropogenic contaminant, and mobility in groundwater (EPRI, 2012). If the groundwater downgradient of the Landfill had been impacted by CCR from the unit, boron and sulfate would be expected to be elevated above background Upper Prediction Limits (UPLs). The UPL is an upper bound on background concentrations calculated for comparing compliance well concentrations to background. Concentrations of boron and sulfate in compliance monitoring well G12S, which had a D12 SSI for pH, have been consistently below their respective UPLs throughout the period of monitoring for 40 CFR § 257 as summarized in **Table A** below.

Table A. Summary Statistics for Boron and Sulfate Concentrations in Compliance Wells (December 2015 to January 2023) with D12 SSIs.

Location	Boron (UPL=0.157 mg/L)		Sulfate (UPL=330 mg/L)	
	Minimum	Maximum	Minimum	Maximum
G12S	< 0.010	0.077	78	99

mg/L = milligrams per liter

Concentrations of boron and sulfate below their respective UPLs in compliance monitoring well G12S indicate this well has not been affected by CCR. Therefore, the Landfill is not the source of the pH SSI.

3.2 LOE #2: Proximity of the Landfill to Historical Mining Activity and Related Groundwater Quality Impacts

Piper diagrams graphically represent ionic composition of aqueous solutions. They display 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**, below, is a Piper diagram that displays the ionic composition of groundwater samples from the background and compliance monitoring wells associated with the Landfill, as well as leachate. Wells with D12 SSIs are circled in red. It is evident from the Piper diagram that the background and downgradient wells are in the calcium-bicarbonate hydrochemical facies.

DC LF - D12

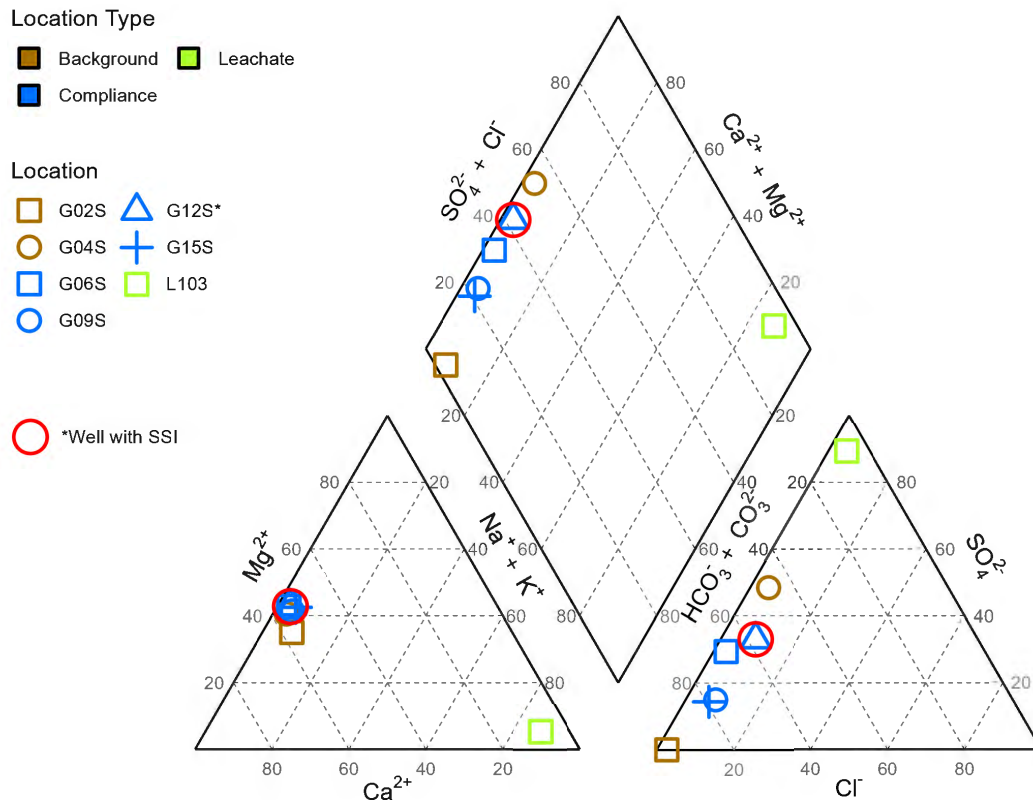


Figure A. Piper Diagram Showing Ionic Composition of Groundwater Samples and Leachate Associated with the Landfill

The area surrounding the Landfill 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 the area varies in depth from 0 to 50 feet below ground surface (bgs). The CCR Rule groundwater monitoring wells for the Landfill are screened between 25 and 45 feet bgs. Potentiometric data indicates that groundwater flows to the northeast as shown on the attached **Figure 1**. The CCR monitoring wells are located approximately 100 to 1,000 feet east (downgradient) of the nearby surface mines along the western, northern, and eastern boundaries of the Landfill (**Figure 2**).

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 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 background and downgradient groundwater monitoring wells at the Landfill.

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 Landfill to historic coal mining activity and similarities in the ionic composition of groundwater in areas of reclaimed surface coal mines and in the Landfill groundwater samples demonstrate that historic mining activity has affected groundwater quality at the Landfill.

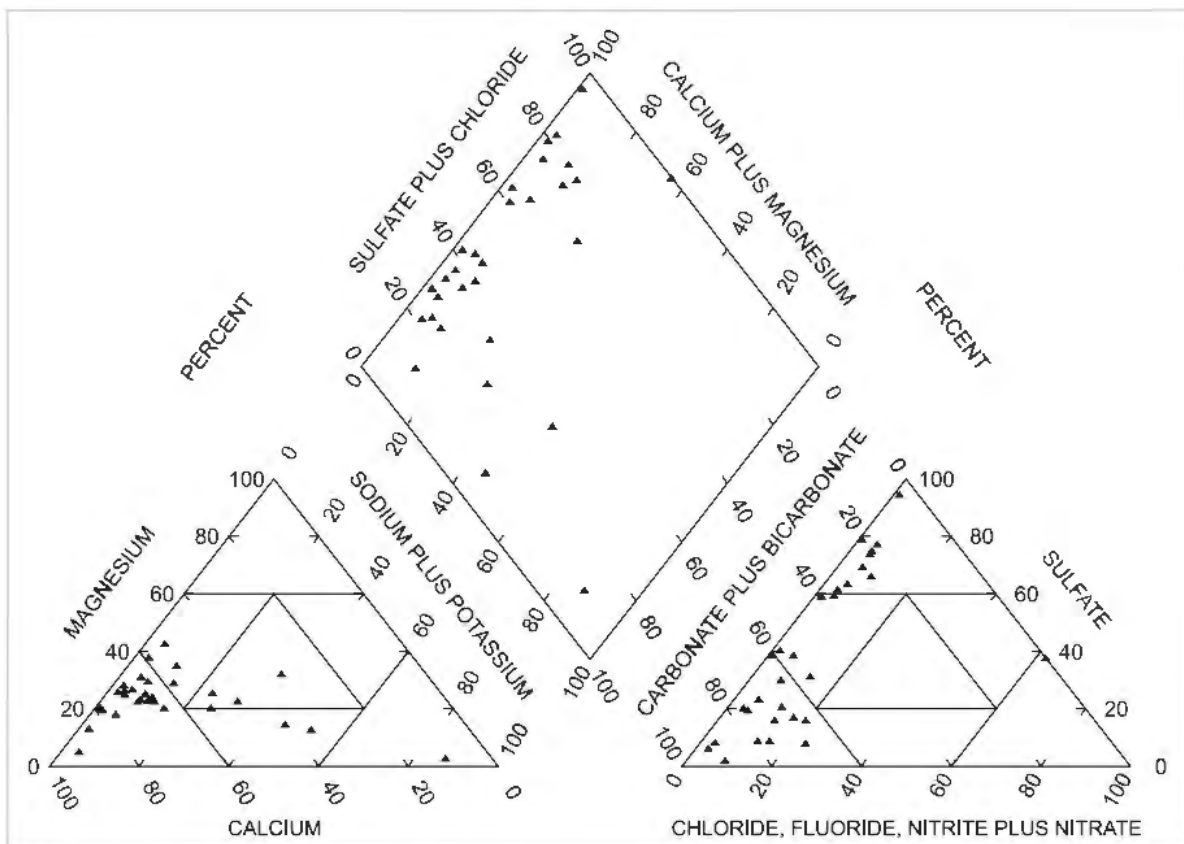


Figure B. Piper Diagram Showing Ionic Composition of Groundwater Downgradient of Reclaimed Surface Coal Mines in High-Sulfur Coal Regions (Modified from USGS).

4. CONCLUSIONS

Based on the two LOEs below, it has been demonstrated that the Landfill is not the source of the pH SSI at downgradient monitoring well G12S.

1. Concentrations of boron and sulfate are below background concentrations in compliance wells.
2. Proximity of the Landfill to historical mining activity and related groundwater quality impacts.

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 Landfill. Therefore, an assessment monitoring program is not required and the Landfill will remain in detection monitoring.

5. 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>

Electric Power Research Institute [EPRI], (2012). Groundwater Quality Signatures for Assessing Potential Impacts from Coal Combustion Product Leachate, Report 1017923. October 2012.

Illinois State Geological Survey (ISGS), 1997. Illinois Coal Reserves Assessment and Database Development: Final Report, Open File Series 1997-4, Illinois State Geological Survey, Coal Section.

Natural Resource Technology, an OBG Company (NRT/OBG), October 17, 2017. Hydrogeologic Monitoring Plan. Duck Creek GMF Pond – CCR Unit ID 203, Duck Creek Landfill – CCR Unit ID 204. Duck Creek Power Station, Canton, Illinois. Illinois Power Resources Generating, LLC.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022. *Multi-Site Statistical Analysis Plan*. December 28, 2022.

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FIGURES



- COMPLIANCE WELL
- BACKGROUND WELL
- MONITORING WELL
- REGULATED UNIT (SUBJECT UNIT)
- PROPERTY BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION

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

0

150

300

Feet

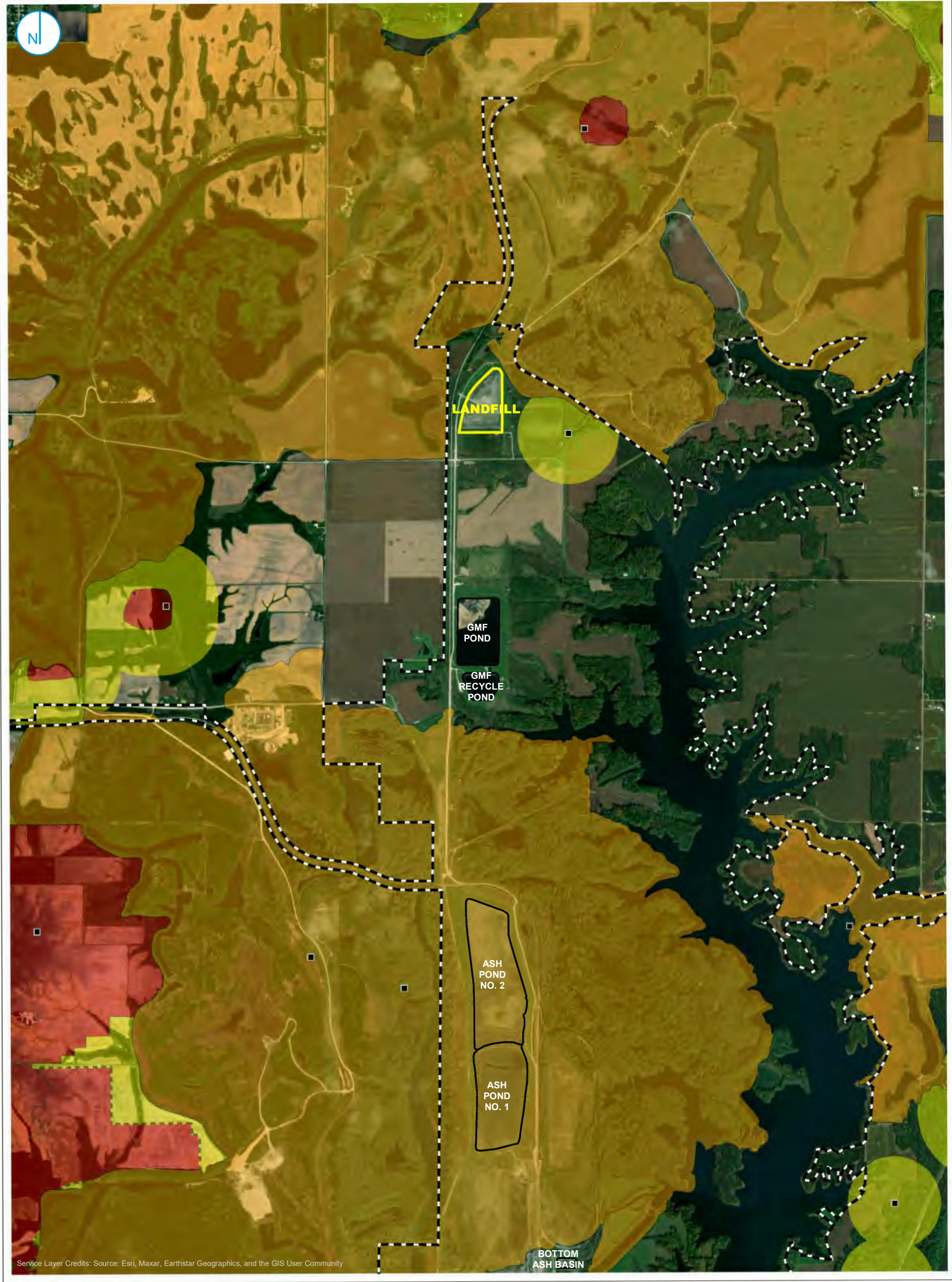
POTENTIOMETRIC SURFACE MAP
JANUARY 9 AND 16, 2023

ALTERNATE SOURCE DEMONSTRATION
LANDFILL (UNIT ID: 204)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





■

 COAL MINE SHAFT

SURFACE COAL MINE

UNDERGROUND COAL MINE

UNDERGROUND MINE BUFFER REGION

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

PROPERTY BOUNDARY

01,0002,000

Feet

COAL MINE COVERAGE AREA

FIGURE 2

ALTERNATE SOURCE DEMONSTRATION
LANDFILL (UNIT ID: 204)
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

