Illinois Power Resources Generating, LLC
1500 Eastport Plaza Dr.
Collinsville, IL 62234

January 30, 2025

Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Re: Duck Creek Ash Pond No. 1 and No. 2 (IEPA ID: W0578010001-01, 02) 2024 Annual Consolidated Report

Dear Mr. LeCrone:

In accordance with 35 IAC § 845.550, Illinois Power Resources Generating, LLC (IPRG) is submitting the annual consolidated report for the Duck Creek Ash Pond No. 1 and No.2 (IEPA ID: W0578010001-01, 02), as enclosed.

Sincerely,

Dianna Tickner
Sr. Director Decommissioning & Demolition

Enclosures

Annual Consolidated Report
Illinois Power Resources Generating, LLC
Duck Creek Power Plant
Ash Pond No. 1 and No. 2; IEPA **ID: W0578010001-01, 02**

In accordance with 35 IAC § 845.550, Illinois Power Resources Generating, LLC (IPRG) has prepared the annual consolidated report. The report is provided in two sections as follows:

Section 1
1) Annual CCR fugitive dust control report (Section 845.500(c))

Section 2
2) Annual inspection report (Section 845.540(b)), including:

A) Annual hazard potential classification certification

B) Annual structural stability assessment certification

C) Annual safety factor assessment certification

D) Inflow design flood control system plan certification

Section 3
3) Annual Groundwater Monitoring and Corrective Action Report (Section 845.610(e))

Section 1
Annual CCR Fugitive Dust Control Report

Annual CCR Fugitive Dust Control Report

for

Duck Creek Power Plant

Prepared for:



Illinois Power Resources Generating, LLC

Duck Creek Power Plant
17751 North Cilco Road
Canton, IL 61520

November 2024

Duck Creek Power Plant
ANNUAL CCR FUGITIVE DUST CONTROL REPORT

Reporting Year: 4th Quarter 2023 through 3rd Quarter 2024

Completed by:____Dianna Tickner___ ____Director, Decommissioning & Demolition_

Name Title

This Annual CCR Fugitive Dust Control Report has been prepared for the Duck Creek Power Plant in accordance with 40 CFR 257.80(c). Section 1 provides a description of the actions taken to control CCR fugitive dust at the facility during the reporting year, including a summary of any corrective measures taken. Section 2 provides a record of citizen complaints received concerning CCR fugitive dust at the facility during the reporting year, including a summary of any corrective measures taken.

Section 1 Actions Taken to Control CCR Fugitive Dust

In accordance with the Duck Creek Power Plant CCR Fugitive Dust Control Plan (Plan), the following measures were used to control CCR fugitive dust from becoming airborne at the facility during the reporting year:

CCR Activity	Actions Taken to Control CCR Fugitive Dust
Management of CCR in the facility's CCR units	CCR to be emplaced in the landfill is conditioned before emplacement.
	Cover exposed dry CCR in the landfill.
	Wet management of CCR bottom ash and flue gas desulfurization materials in CCR surface impoundments.
	Water areas of exposed CCR in CCR units, as necessary.
	Naturally occurring grass vegetation in areas of exposed CCR in CCR surface impoundments.
	Apply chemical dust suppressant on areas of exposed CCR in CCR units, as necessary.
Handling of CCR at the facility	Wet sluice CCR bottom ash and flue gas desulfurization materials to CCR surface impoundments.
	CCR bottom ash removed from CCR surface impoundments and loaded into trucks for transport remains conditioned during handling.

Duck Creek Power Plant
ANNUAL CCR FUGITIVE DUST CONTROL REPORT

CCR Activity	Actions Taken to Control CCR Fugitive Dust
Handling of CCR at the facility	Pneumatically convey dry CCR fly ash to storage silos in an enclosed system.
	CCR to be emplaced in the landfill is conditioned before emplacement.
	Load CCR transport trucks from the CCR fly ash silos in a partially enclosed area.
	Load CCR transport trucks from the CCR fly ash silos using a telescoping chute.
	Maintain and operate the bin vent filters on each CCR fly ash silo as needed during fly ash loadout.
	Perform housekeeping, as necessary, in the fly ash loading area.
	Operate fly ash handling system in accordance with good operating practices.
	Maintain and repair as necessary dust controls on the fly ash handling system.
Transportation of CCR at the facility	CCR from the CCR fly ash silos to be emplaced in the landfill is conditioned before emplacement.
	Cover or enclose trucks used to transport CCR fly ash.
	Limit the speed of vehicles to no more than 15 mph on facility roads.
	Cover or enclose trucks used to transport CCR other than fly ash, as necessary.
	Sweep or rinse off the outside of the trucks transporting CCR, as necessary.
	Remove CCR, as necessary, deposited on facility road surfaces during transport.

Based on a review of the Plan and inspections associated with CCR fugitive dust control performed in the reporting year, the control measures identified in the Plan as implemented at the facility effectively minimized CCR from becoming airborne at the facility. No revisions or additions to control measures identified in the Plan were needed.

The Illinois Environmental Protection Agency rule 35 IAC 212.314 does not require fugitive dust controls when the wind speed is greater than 25 mph.

No material changes occurred in the reporting year in site conditions potentially resulting in CCR fugitive dust becoming airborne at the facility that warrant an amendment of the Plan.

Duck Creek ceased operation in December of 2019. Not all the CCR activities that are listed in the table occurred after the plant was permanently shut down. For the activities that did occur, the actions taken to control CCR Fugitive Dust that are listed in the table were followed and were adequate to effectively minimize fugitive dust.

Section 2 Record of Citizen Complaints

No citizen complaints were received regarding CCR fugitive dust at Duck Creek Power Plant in the reporting year.

Section 2

Annual inspection report (Section 845.540(b)), including:

A) Annual hazard potential classification certification, if applicable (Section 845.440)

B) Annual structural stability assessment certification, if applicable (Section 845.450)

C) Annual safety factor assessment certification, if applicable (Section 845.460)

D) Inflow design flood control system plan certification (Section 845.510(c))

ANNUAL INSPECTION BY A QUALIFIED PROFESSIONAL ENGINEER 35 IAC § 845.540
(b)(1) The CCR surface impoundment must be inspected on an annual basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted engineering standards. The inspection must, at a minimum, include: A) A review of available information regarding the status and condition of the CCR surface impoundment, including files available in the operating record (e.g., CCR surface impoundment design and construction information required by Sections 845.220(a)(1) and 845.230(d)(2)(A), previous structural stability assessments required under Section 845.450, the results of inspections by a qualified person, and results of previous annual inspections); B) A visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundment and appurtenant structures; C) A visual inspection of any hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment for structural integrity and continued safe and reliable operation; D) The annual hazard potential classification certification, if applicable (see Section 845.440); E) The annual structural stability assessment certification, if applicable (see Section 845.450); F) The annual safety factor assessment certification, if applicable (see Section 845.460); and G) The inflow design flood control system plan certification (see Section 845.510(c)).

SITE INFORMATION	
Site Name / Address / Date of Inspection	Duck Creek Power Station Fulton County, Illinois 61520 9/17/2024
Operator Name / Address	Luminant Generation Company LLC 6555 Sierra Drive, Irving, TX 75039
CCR unit	Ash Pond No. 1

INSPECTION REPORT 35 IAC § 845.540	
(b)(1)(D) The annual hazard potential classification certification, if applicable (see Section 845.440).	Based on a review of the CCR unit's annual hazard potential classification, the unit is classified as a Class II CCR surface impoundment.
(b)(2)(A) Any changes in geometry of the structure since the previous annual inspection.	Cap and closure of Ash Pond No. 1 completed.
(b)(2)(B) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See the attached.
b)(2)(C) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;	See the attached.
b)(2)(D) The storage capacity of the impounding structure at the time of the inspection	Cap and closure of Ash Pond No. 1 completed.
(b)(2)(E) The approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Approximately 2500 acre-feet of CCR material capped and closed.
(b)(2)(F) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit	Based on a review of the CCR unit's records and visual observation during the on-site inspection, there was no appearance of an actual or potential structural weakness of the CCR unit, nor an existing condition that is disrupting or would disrupt the operation and safety of the unit.

INSPECTION REPORT 35 IAC § 845.540	
(b)(2)(G) Any other changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.	Based on a review of the CCR unit's records and visual observation during the on-site inspection, no other changes which may have affected the stability or operation of the CCR unit have taken place since the previous annual inspection.
(b)(1)(G) The inflow design flood control system plan certification (see Section 845.510(c))	Based on a review of the CCR unit's records, the CCR unit is designed, operated, and maintained to adequately manage the flow from the CCR impoundment and control the peak discharge from the inflow design flood.

35 IAC § 845.540 - Annual inspection by a qualified professional engineer.

I, James Knutelski, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information submitted, is to the best of my knowledge and belief, true, accurate and complete. Based on the annual inspection, the design, construction, operation, and maintenance of the CCR Unit is consistent with recognized and generally accepted good engineering standards. Based on a review of the records for the CCR unit and a visual inspection of the unit to document no material changes to the unit, the hazard potential classification was conducted in accordance with the requirements of Section 845.440, the structural stability assessment was conducted in accordance with the requirements of Section 845.450, the safety factor assessment was conducted in accordance with the requirements of Section 845.460, and the inflow design flood control system plan assessment was conducted in accordance with the requirements of Section 845.510.



James Knutelski, PE
Illinois PE No. 062-054206, Expires: 11/30/2025
Date: 12/13/2024

Site Name: Duck Creek Power Station

CCR Unit: Ash Pond No. 1

35 IAC § 845.540 (b)(2)(B)		
Instrument ID #	Type	Maximum recorded reading since previous annual inspection (ft)
PZ1	Piezometer	abandoned
B5	Piezometer	abandoned

35 IAC § 845.540 (b)(2)(C)						
	Approximate Depth / Elevation					
Since previous inspection:	Elevation (ft)			Depth (ft)		
	Minimum	Present	Maximum	Minimum	Present	Maximum
Impounded Water		0			0	
CCR	622		655	52		85

ANNUAL INSPECTION BY A QUALIFIED PROFESSIONAL ENGINEER 35 IAC § 845.540
(b)(1) The CCR surface impoundment must be inspected on an annual basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted engineering standards. The inspection must, at a minimum, include: A) A review of available information regarding the status and condition of the CCR surface impoundment, including files available in the operating record (e.g., CCR surface impoundment design and construction information required by Sections 845.220(a)(1) and 845.230(d)(2)(A), previous structural stability assessments required under Section 845.450, the results of inspections by a qualified person, and results of previous annual inspections); B) A visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundment and appurtenant structures; C) A visual inspection of any hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment for structural integrity and continued safe and reliable operation; D) The annual hazard potential classification certification, if applicable (see Section 845.440); E) The annual structural stability assessment certification, if applicable (see Section 845.450); F) The annual safety factor assessment certification, if applicable (see Section 845.460); and G) The inflow design flood control system plan certification (see Section 845.510(c)).

SITE INFORMATION	
Site Name / Address / Date of Inspection	Duck Creek Power Station Fulton County, Illinois 61520 9/17/2024
Operator Name / Address	Luminant Generation Company LLC 6555 Sierra Drive, Irving, TX 75039
CCR unit	Ash Pond No. 2

INSPECTION REPORT 35 IAC § 845.540	
(b)(1)(D) The annual hazard potential classification certification, if applicable (see Section 845.440).	Based on a review of the CCR unit's annual hazard potential classification, the unit is classified as a Class II CCR surface impoundment.
(b)(2)(A) Any changes in geometry of the structure since the previous annual inspection.	Cap and Closure activities substantially completed at time of inspection.
(b)(2)(B) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See the attached.
b)(2)(C) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;	See the attached.
b)(2)(D) The storage capacity of the impounding structure at the time of the inspection	Cap and closure substantially completed at time of inspection.
(b)(2)(E) The approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Approximately 3750 acre-feet of CCR capped and closed.
(b)(2)(F) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit	Based on a review of the CCR unit's records and visual observation during the on-site inspection, there was no appearance of an actual or potential structural weakness of the CCR unit, nor an existing condition that is disrupting or would disrupt the operation and safety of the unit.

INSPECTION REPORT 35 IAC § 845.540	
(b)(2)(G) Any other changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.	Based on a review of the CCR unit's records and visual observation during the on-site inspection, no other changes which may have affected the stability or operation of the CCR unit have taken place since the previous annual inspection.
(b)(1)(G) The inflow design flood control system plan certification (see Section 845.510(c))	Based on a review of the CCR unit's records, the CCR unit is designed, operated, and maintained to adequately manage the flow from the CCR impoundment and control the peak discharge from the inflow design flood.

35 IAC § 845.540 - Annual inspection by a qualified professional engineer.

I, James Knutelski, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information submitted, is to the best of my knowledge and belief, true, accurate and complete. Based on the annual inspection, the design, construction, operation, and maintenance of the CCR Unit is consistent with recognized and generally accepted good engineering standards. Based on a review of the records for the CCR unit and a visual inspection of the unit to document no material changes to the unit, the hazard potential classification was conducted in accordance with the requirements of Section 845.440, the structural stability assessment was conducted in accordance with the requirements of Section 845.450, the safety factor assessment was conducted in accordance with the requirements of Section 845.460, and the inflow design flood control system plan assessment was conducted in accordance with the requirements of Section 845.510.



James Knutelski, PE
Illinois PE No. 062-054206, Expires: 11/30/2025
Date: 12/13/2024

Site Name: Duck Creek Power Station

CCR Unit: Ash Pond No. 2

35 IAC § 845.540 (b)(2)(B)		
Instrument ID #	Type	Maximum recorded reading since previous annual inspection (ft)
OM31	Piezometer	abandoned
PZ2	Piezometer	abandoned

35 IAC § 845.540 (b)(2)(C)						
	Approximate Depth / Elevation					
Since previous inspection:	Elevation (ft)			Depth (ft)		
	Minimum	Present	Maximum	Minimum	Present	Maximum
Impounded Water		0			0	
CCR	628		635	58		65

Section 3

Annual Groundwater Monitoring and Corrective Action Report (Section 845.610(e))

Prepared for

Illinois Power Resources Generating, LLC

Date

January 31, 2025

Project No.

1940103649-006

2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ASH POND NO. 1 AND ASH POND NO. 2

DUCK CREEK POWER PLANT

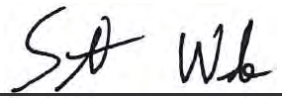
CANTON, ILLINOIS

IEPA ID NO. W0578010001-01 AND W0578010001-02

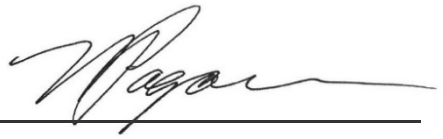
RAMBOLL Bright ideas. Sustainable change.

2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT DUCK CREEK POWER PLANT ASH POND NO. 1 AND ASH POND NO. 2

Project name	**Duck Creek Power Plant Ash Pond No. 1 and Ash Pond No. 2**
Project no.	**1940103649-006**
Recipient	**Illinois Power Resources Generating, LLC**
Document type	**Annual Groundwater Monitoring and Corrective Action Report**
Version	**FINAL**
Date	**January 31, 2025**
Prepared by	**Scott S. Woods**
Checked by	**Lauren D. Cook**
Approved by	**Nicole M. Pagano, PE, PG**
Description	**Annual Report required by 35 I.A.C. § 845**



Scott S. Woods
Hydrogeologist



Nicole M. Pagano, PE, PG
Senior Project Manager

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2. Monitoring and Corrective Action Program Status **6**
3. Key Actions Completed in 2024 **7**
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TABLES (IN TEXT)

Table A 35 I.A.C. § 845 Monitoring Program Summary for 2024

TABLES (ATTACHED)

Table 1 Field Parameters and Analytical Results – Quarter 1, 2024
Field Parameters and Analytical Results – Quarter 2, 2024
Field Parameters and Analytical Results – Quarter 3, 2024
Field Parameters and Analytical Results – Quarter 4, 2024

FIGURES (ATTACHED)

Figure 1 Monitoring Well Location Map
Figure 2 Potentiometric Surface Map, January 17 and 18, 2024
Figure 3 Potentiometric Surface Map, April 12, 2024
Figure 4 Potentiometric Surface Map, July 22, 2024
Figure 5 Potentiometric Surface Map, October 14, 2024

ATTACHMENTS

Attachment A Groundwater Elevation Data
Attachment B Laboratory Analytical Reports and Field Data Sheets

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
AP1/AP2	Ash Pond No. 1 and Ash Pond No. 2
CCA	compliance commitment agreement
CCR	coal combustion residuals
DCPP	Duck Creek Power Plant
GWPS	groundwater protection standard
ID	identification
IEPA	Illinois Environmental Protection Agency
IPRG	Illinois Power Resources Generating, LLC
NID	National Inventory of Dams
No.	number
R5	fifth round of sampling to establish background
R6	sixth round of sampling to establish background
R7	seventh round of sampling to establish background
R8	eighth round of sampling to establish background
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SI	surface impoundment
SSI	statistically significant increase

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.610(e) (*Annual Groundwater Monitoring and Corrective Action Report*) for Ash Pond No. 1 and Ash Pond No. 2 (AP1/AP2) located at Duck Creek Power Plant (DCPP) near Canton, Illinois. AP1/AP2 is recognized by coal combustion residuals (CCR) unit identification (ID) number (No.) 201/202, Illinois Environmental Protection Agency (IEPA) ID Nos. W0578010001-01 and W0578010001-02, and National Inventory of Dams (NID) Nos. IL50715 and IL50014.

AP1 and AP2 were closed in accordance with the Closure and Post Closure Care Plan submitted to IEPA on September 15, 2016. IEPA approved the Closure and Post-Closure Care Plan and Ground Water Management Zone in a letter date November 23, 2016. Closure of AP1/AP2 was completed on December 22, 2020.

As required by 35 I.A.C. § 845, an operating permit application for AP1/AP2 was submitted by Illinois Power Resources Generating, LLC (IPRG) to IEPA by October 31, 2021 in accordance with the requirements specified in 35 I.A.C. § 845.230(d) and is pending approval. IPRG entered into a compliance commitment agreement (CCA) with IEPA on December 28, 2022. Quarterly groundwater monitoring for the constituents listed in 35 I.A.C. § 845.600 was initiated in the first Quarter of 2023. Eight quarters of groundwater samples were collected and analyzed for the purposes of establishing a proposed groundwater monitoring plan and sampling methodologies based on those results in accordance with CCA section 5(e). The required submittals are in preparation and will be submitted to the IEPA following completion, as required by the CCA. After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. As specified in the CCA, groundwater sampling requirements that apply to the CCR SI under other existing permit programs will become void upon issuance of an approved operating permit pursuant to 35 I.A.C § 845.

Quarterly groundwater samples were collected from the existing monitoring system monitoring wells. All available groundwater monitoring data collected in 2024 are summarized in **Table 1** and groundwater elevation data are provided in **Attachment A**.

Until background values are calculated, constituent concentrations observed at compliance monitoring wells will not be determined for comparison with the groundwater protection standards (GWPSs) or for exceedances over statistical background levels.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of IPRG, to provide the information required by 35 I.A.C. § 845.610(e) for AP1/AP2 located at DCPP near Canton, Illinois. The owner or operator of a CCR Surface Impoundment (SI) must prepare and submit to IEPA by January 31st of each year an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year as part of the Annual Consolidated Report required by 35 I.A.C. § 845.550. The Annual Groundwater Monitoring and Corrective Action Report shall document the status of the groundwater monitoring and corrective action plan for the CCR SI (**Section 2**), summarize key actions completed, including the status of permit applications and Agency approvals (**Section 3**), describe any problems encountered and actions to resolve the problems (**Section 4**), and project key activities for the upcoming year (**Section 5**).

At a minimum, the annual report must contain the following information, to the extent available:

A. A map, aerial image, or diagram showing the CCR SI and all background (or upgradient) and [downgradient] compliance monitoring wells, including the well identification numbers, that are part of the proposed groundwater monitoring system for the CCR SI, and a visual delineation of any exceedances of the [groundwater protection standard] GWPS.

B. 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.

C. A potentiometric surface map for each groundwater elevation sampling event required by 35 I.A.C. § 845.650(b)(2).

D. In addition to all the monitoring data obtained under 35 I.A.C. §§ 845.600-680, a summary including the number of groundwater samples that were collected for analysis for each background and [downgradient] compliance well, and the dates the samples were collected (**Section 3** and **Table A**).

E. A narrative discussion of any statistically significant increases (SSIs) over background levels for the constituents listed in 35 I.A.C. § 845.600.

F. Other information required to be included in the annual report as specified in 35 I.A.C. §§ 845.600-680.

A section at the beginning of the annual report must provide an overview of the current status of the groundwater monitoring program and corrective action plan for the CCR SI (see **Executive Summary**). At a minimum, the summary must:

A. Specify whether groundwater monitoring data shows an SSI over background concentrations for one or more constituents listed in 35 I.A.C. § 845.600.

B. Identify those constituents having an SSI over background concentrations and the names of the monitoring wells associated with the SSI(s).

C. Specify whether there have been any exceedances of the GWPS for one or more constituents listed in 35 I.A.C. § 845.600.

D. Identify those constituents with exceedances of the GWPS in 35 I.A.C. § 845.600 and the names of the monitoring wells associated with the exceedance.

E. Provide the date when the assessment of corrective measures was initiated for the CCR SI.

F. Provide the date when the assessment of corrective measures was completed for the CCR SI.

G. Specify whether a remedy was selected under 35 I.A.C. § 845.670 during the current annual reporting period, and if so, the date of remedy selection.

H. Specify whether remedial activities were initiated or are ongoing under 35 I.A.C. § 845.780 during the current annual reporting period.

This report summarizes the information collected in 2024 for AP1/AP2, and includes the following:

- A map showing the CCR SI and all proposed background (or upgradient) and downgradient monitoring wells, including their identification numbers, that are part of the proposed groundwater monitoring program for AP1/AP2 (**Figure 1**).
- Quarterly groundwater potentiometric maps for each quarter (**Figures 2 through 5**).
- In addition to all the monitoring data obtained under 35 I.A.C. §§ 845.600-680, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, and the dates the samples were collected (**Section 3** and **Table A**).
- A table summarizing the quarterly analytical data and field parameters collected during 2024 (**Table 1**), groundwater elevation data (**Attachment A**), and the laboratory analytical reports and field data sheets (**Attachment B**).

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

An operating permit application for AP1/AP2 was submitted by IPRG to IEPA by October 31, 2021 in accordance with the requirements specified in 35 I.A.C. § 845.230(d) and is pending approval. IPRG entered into a CCA with IEPA on December 28, 2022. Quarterly groundwater monitoring for the constituents listed in 35 I.A.C. § 845.600 was initiated in the first Quarter of 2023. Eight quarters of groundwater samples were collected and analyzed for the purposes of establishing a proposed groundwater monitoring plan and sampling methodologies based on those results in accordance with CCA section 5(e). The required submittals are in preparation and will be submitted to the IEPA following completion, as required by the CCA. After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. Until background values are calculated, constituent concentrations observed at compliance monitoring wells will not be determined for comparison with the GWPSs or for exceedances over statistical background levels.

As specified in the CCA, groundwater sampling requirements that apply to the CCR SI under other existing permit programs will become void upon issuance of an approved operating permit pursuant to 35 I.A.C § 845.

3. KEY ACTIONS COMPLETED IN 2024

The proposed 35 I.A.C. § 845 monitoring system is presented in **Figure 1**. No changes to the monitoring system occurred in 2024.

Groundwater level elevations were collected quarterly in 2024 and are provided in **Attachment A**. Potentiometric surfaces for January, April, July, and October 2024 are included in **Figures 2 through 5**. A summary of the samples collected in 2024 is included in **Section 3.1**.

One groundwater sample was collected from each proposed background and compliance wells during each quarterly monitoring event in 2024. A summary of the samples collected from background and compliance monitoring wells in 2024 is included in **Table A** below. **Table 1** is a summary of the field parameters and analytical results from the 2024 sampling events. Laboratory analytical reports and field data sheets are provided in **Attachment B**.

Table A. 35 I.A.C. § 845 Monitoring Program Summary for 2024

Event ID	Sampling Dates [1, 2, 3]	Analytical Data Receipt Date
R5	January 24 – February 6, 2024	March 17, 2024
R6	April 15 – 30, 2024	June 24, 2024
R7	July 23 – 30, 2024	August 30, 2024
R8	October 15 – 24, 2024	December 8, 2024

Notes:

[1] All samples were analyzed for the parameters listed in 35 I.A.C. § 845.600, calcium, and turbidity.

[2] The following background wells were sampled for each event: BA06, OM16, and OM17

[3] The following compliance wells were sampled for each event: OM01, OM04S, OM07, OM12, OM21, OM22D, OM23D, OM24D, OM25S, OR02, OR03D, OR04D, OR06A, OR11, OR13D, OR13S, OR14D, OR19, and OR20

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

The eight quarters of groundwater monitoring specified in the CCA section 5(e) was completed in 2024. Groundwater samples were collected in accordance with the proposed groundwater monitoring plan using sampling methodologies provided in the operating permit application for AP1/AP2. After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit.

5. KEY ACTIVITIES PLANNED FOR 2025

The following key activities are planned for 2025:

- Submit a revised groundwater monitoring plan in accordance with the CCA.
- Continue collecting and analyzing groundwater samples from the AP1/AP2 monitoring system.
- After AP1/AP2 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. As specified in the CCA, groundwater sampling requirements that apply to the CCR SI under other existing permit programs will become void upon issuance of an approved operating permit pursuant to 35 I.A.C § 845. In addition, and in accordance with the CCA, once groundwater monitoring commences, the groundwater monitoring performed under Section 1.5 of the approved Closure and Post-Closure Care Plan will cease. Groundwater monitoring will include:
  - Monthly groundwater elevations
  - Quarterly groundwater sampling

6. REFERENCES

Illinois Administrative Code, Title 35, Subtitle G, Chapter I, Subchapter J, Part 845: Standards for The Disposal Of Coal Combustion Residuals In Surface Impoundments, effective April 21, 2021.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. Addendum to the Groundwater Monitoring Plan. Duck Creek Power Plant, Ash Pond No. 1 and Ash Pond No. 2, Canton, Illinois. Illinois Power Resources Generating, LLC. October 25, 2021.

Illinois Environmental Protection Agency (IEPA), 2022. Compliance Commitment Acceptance, Violation Notice, Duck Creek Generating Station, Violation Notice No. W-2022-50146, BOW ID No.: W0578010001-01. December 28, 2022.

TABLES

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2024
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R5	01/26/2024	Antimony, total	0.00043 U	mg/L
BA06	Background	R5	01/26/2024	Arsenic, total	0.00640	mg/L
BA06	Background	R5	01/26/2024	Barium, total	0.130	mg/L
BA06	Background	R5	01/26/2024	Beryllium, total	0.00059 U	mg/L
BA06	Background	R5	01/26/2024	Boron, total	11.0	mg/L
BA06	Background	R5	01/26/2024	Cadmium, total	0.00074 U	mg/L
BA06	Background	R5	01/26/2024	Calcium, total	320	mg/L
BA06	Background	R5	01/26/2024	Chloride, total	520	mg/L
BA06	Background	R5	01/26/2024	Chromium, total	0.00990	mg/L
BA06	Background	R5	01/26/2024	Cobalt, total	0.0110	mg/L
BA06	Background	R5	01/26/2024	Dissolved Oxygen	0.840	mg/L
BA06	Background	R5	01/26/2024	Fluoride, total	0.280	mg/L
BA06	Background	R5	01/26/2024	Lead, total	0.00650	mg/L
BA06	Background	R5	01/26/2024	Lithium, total	0.0094	mg/L
BA06	Background	R5	01/26/2024	Mercury, total	0.00014 U	mg/L
BA06	Background	R5	01/26/2024	Molybdenum, total	0.00180	mg/L
BA06	Background	R5	01/26/2024	Oxidation Reduction Potential	-17.0	mV
BA06	Background	R5	01/26/2024	pH (field)	6.7	SU
BA06	Background	R5	01/26/2024	Radium 226 + Radium 228, total	4.69	pCi/L
BA06	Background	R5	01/26/2024	Selenium, total	0.00074 U	mg/L
BA06	Background	R5	01/26/2024	Specific Conductance @ 25C (field)	2,091	micromhos/cm
BA06	Background	R5	01/26/2024	Sulfate, total	360	mg/L
BA06	Background	R5	01/26/2024	Temperature (Celsius)	11.1	degrees C
BA06	Background	R5	01/26/2024	Thallium, total	0.00038 U	mg/L
BA06	Background	R5	01/26/2024	Total Dissolved Solids	1,900	mg/L
BA06	Background	R5	01/26/2024	Turbidity, field	352	NTU
OM16	Background	R5	01/29/2024	Antimony, total	0.00043 U	mg/L
OM16	Background	R5	01/29/2024	Arsenic, total	0.00940	mg/L
OM16	Background	R5	01/29/2024	Barium, total	0.0460 J+	mg/L
OM16	Background	R5	01/29/2024	Beryllium, total	0.00059 U	mg/L
OM16	Background	R5	01/29/2024	Boron, total	0.0420 J+	mg/L
OM16	Background	R5	01/29/2024	Cadmium, total	0.00640	mg/L
OM16	Background	R5	01/29/2024	Calcium, total	530	mg/L
OM16	Background	R5	01/29/2024	Chloride, total	9.10	mg/L
OM16	Background	R5	01/29/2024	Chromium, total	0.0110	mg/L
OM16	Background	R5	01/29/2024	Cobalt, total	0.0110	mg/L
OM16	Background	R5	01/29/2024	Dissolved Oxygen	0.900	mg/L
OM16	Background	R5	01/29/2024	Fluoride, total	0.175	mg/L
OM16	Background	R5	01/29/2024	Lead, total	0.00590	mg/L
OM16	Background	R5	01/29/2024	Lithium, total	0.0280	mg/L
OM16	Background	R5	01/29/2024	Mercury, total	0.00014 U	mg/L
OM16	Background	R5	01/29/2024	Molybdenum, total	0.00087	mg/L
OM16	Background	R5	01/29/2024	Oxidation Reduction Potential	14.0	mV
OM16	Background	R5	01/29/2024	pH (field)	6.3	SU
OM16	Background	R5	01/29/2024	Radium 226 + Radium 228, total	0.720	pCi/L
OM16	Background	R5	01/29/2024	Selenium, total	0.00074 U	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R5	01/29/2024	Specific Conductance @ 25C (field)	3,190	micromhos/cm
OM16	Background	R5	01/29/2024	Sulfate, total	2,000	mg/L
OM16	Background	R5	01/29/2024	Temperature (Celsius)	8.30	degrees C
OM16	Background	R5	01/29/2024	Thallium, total	0.00038 U	mg/L
OM16	Background	R5	01/29/2024	Total Dissolved Solids	3,400	mg/L
OM16	Background	R5	01/29/2024	Turbidity, field	0	NTU
OM17	Background	R5	02/05/2024	Antimony, total	0.00043 U	mg/L
OM17	Background	R5	02/05/2024	Arsenic, total	0.00069 U	mg/L
OM17	Background	R5	02/05/2024	Barium, total	0.0760	mg/L
OM17	Background	R5	02/05/2024	Beryllium, total	0.00059 U	mg/L
OM17	Background	R5	02/05/2024	Boron, total	0.110 J+	mg/L
OM17	Background	R5	02/05/2024	Cadmium, total	0.00074 U	mg/L
OM17	Background	R5	02/05/2024	Calcium, total	120	mg/L
OM17	Background	R5	02/05/2024	Chloride, total	1.90	mg/L
OM17	Background	R5	02/05/2024	Chromium, total	0.0028 U	mg/L
OM17	Background	R5	02/05/2024	Cobalt, total	0.00048 U	mg/L
OM17	Background	R5	02/05/2024	Dissolved Oxygen	2.80	mg/L
OM17	Background	R5	02/05/2024	Fluoride, total	0.0847	mg/L
OM17	Background	R5	02/05/2024	Lead, total	0.00038	mg/L
OM17	Background	R5	02/05/2024	Lithium, total	0.0052	mg/L
OM17	Background	R5	02/05/2024	Mercury, total	0.00017	mg/L
OM17	Background	R5	02/05/2024	Molybdenum, total	0.00074 U	mg/L
OM17	Background	R5	02/05/2024	Oxidation Reduction Potential	229	mV
OM17	Background	R5	02/05/2024	pH (field)	7.9	SU
OM17	Background	R5	02/05/2024	Radium 226 + Radium 228, total	0.290	pCi/L
OM17	Background	R5	02/05/2024	Selenium, total	0.00074 U	mg/L
OM17	Background	R5	02/05/2024	Specific Conductance @ 25C (field)	744	micromhos/cm
OM17	Background	R5	02/05/2024	Sulfate, total	88.0	mg/L
OM17	Background	R5	02/05/2024	Temperature (Celsius)	12.2	degrees C
OM17	Background	R5	02/05/2024	Thallium, total	0.00038 U	mg/L
OM17	Background	R5	02/05/2024	Total Dissolved Solids	440	mg/L
OM17	Background	R5	02/05/2024	Turbidity, field	36.9	NTU
OM01	Compliance	R5	02/06/2024	Antimony, total	0.00048	mg/L
OM01	Compliance	R5	02/06/2024	Arsenic, total	0.00069 U	mg/L
OM01	Compliance	R5	02/06/2024	Barium, total	0.0200	mg/L
OM01	Compliance	R5	02/06/2024	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R5	02/06/2024	Boron, total	0.230	mg/L
OM01	Compliance	R5	02/06/2024	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R5	02/06/2024	Calcium, total	570	mg/L
OM01	Compliance	R5	02/06/2024	Chloride, total	37.0	mg/L
OM01	Compliance	R5	02/06/2024	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R5	02/06/2024	Cobalt, total	0.0140	mg/L
OM01	Compliance	R5	02/06/2024	Dissolved Oxygen	2.60	mg/L
OM01	Compliance	R5	02/06/2024	Fluoride, total	0.158	mg/L
OM01	Compliance	R5	02/06/2024	Lead, total	0.00051	mg/L
OM01	Compliance	R5	02/06/2024	Lithium, total	0.005 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R5	02/06/2024	Mercury, total	0.00014 U	mg/L
OM01	Compliance	R5	02/06/2024	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R5	02/06/2024	Oxidation Reduction Potential	67.0	mV
OM01	Compliance	R5	02/06/2024	pH (field)	6.4	SU
OM01	Compliance	R5	02/06/2024	Radium 226 + Radium 228, total	1.38	pCi/L
OM01	Compliance	R5	02/06/2024	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R5	02/06/2024	Specific Conductance @ 25C (field)	3,210	micromhos/cm
OM01	Compliance	R5	02/06/2024	Sulfate, total	2,000	mg/L
OM01	Compliance	R5	02/06/2024	Temperature (Celsius)	9.20	degrees C
OM01	Compliance	R5	02/06/2024	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R5	02/06/2024	Total Dissolved Solids	3,400	mg/L
OM01	Compliance	R5	02/06/2024	Turbidity, field	61.1	NTU
OM04S	Compliance	R5	01/24/2024	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R5	01/24/2024	Arsenic, total	0.00069 U	mg/L
OM04S	Compliance	R5	01/24/2024	Barium, total	0.0420	mg/L
OM04S	Compliance	R5	01/24/2024	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R5	01/24/2024	Boron, total	0.180 J+	mg/L
OM04S	Compliance	R5	01/24/2024	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R5	01/24/2024	Calcium, total	140	mg/L
OM04S	Compliance	R5	01/24/2024	Chloride, total	17.0	mg/L
OM04S	Compliance	R5	01/24/2024	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R5	01/24/2024	Cobalt, total	0.00370	mg/L
OM04S	Compliance	R5	01/24/2024	Dissolved Oxygen	3.20	mg/L
OM04S	Compliance	R5	01/24/2024	Fluoride, total	0.242	mg/L
OM04S	Compliance	R5	01/24/2024	Lead, total	0.001 U	mg/L
OM04S	Compliance	R5	01/24/2024	Lithium, total	0.005 U	mg/L
OM04S	Compliance	R5	01/24/2024	Mercury, total	0.00014 U	mg/L
OM04S	Compliance	R5	01/24/2024	Molybdenum, total	0.00140	mg/L
OM04S	Compliance	R5	01/24/2024	Oxidation Reduction Potential	239	mV
OM04S	Compliance	R5	01/24/2024	pH (field)	6.6	SU
OM04S	Compliance	R5	01/24/2024	Radium 226 + Radium 228, total	1.53	pCi/L
OM04S	Compliance	R5	01/24/2024	Selenium, total	0.00110	mg/L
OM04S	Compliance	R5	01/24/2024	Specific Conductance @ 25C (field)	1,100	micromhos/cm
OM04S	Compliance	R5	01/24/2024	Sulfate, total	150	mg/L
OM04S	Compliance	R5	01/24/2024	Temperature (Celsius)	8.80	degrees C
OM04S	Compliance	R5	01/24/2024	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R5	01/24/2024	Total Dissolved Solids	820	mg/L
OM04S	Compliance	R5	01/24/2024	Turbidity, field	6.10	NTU
OM07	Compliance	R5	01/26/2024	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R5	01/26/2024	Arsenic, total	0.00200	mg/L
OM07	Compliance	R5	01/26/2024	Barium, total	0.0670	mg/L
OM07	Compliance	R5	01/26/2024	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R5	01/26/2024	Boron, total	0.790	mg/L
OM07	Compliance	R5	01/26/2024	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R5	01/26/2024	Calcium, total	130	mg/L
OM07	Compliance	R5	01/26/2024	Chloride, total	8.20	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R5	01/26/2024	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R5	01/26/2024	Cobalt, total	0.00470	mg/L
OM07	Compliance	R5	01/26/2024	Dissolved Oxygen	0	mg/L
OM07	Compliance	R5	01/26/2024	Fluoride, total	0.277	mg/L
OM07	Compliance	R5	01/26/2024	Lead, total	0.00086	mg/L
OM07	Compliance	R5	01/26/2024	Lithium, total	0.005 U	mg/L
OM07	Compliance	R5	01/26/2024	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R5	01/26/2024	Molybdenum, total	0.00130	mg/L
OM07	Compliance	R5	01/26/2024	Oxidation Reduction Potential	-3.00	mV
OM07	Compliance	R5	01/26/2024	pH (field)	7.4	SU
OM07	Compliance	R5	01/26/2024	Radium 226 + Radium 228, total	1.44	pCi/L
OM07	Compliance	R5	01/26/2024	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R5	01/26/2024	Specific Conductance @ 25C (field)	1,100	micromhos/cm
OM07	Compliance	R5	01/26/2024	Sulfate, total	170	mg/L
OM07	Compliance	R5	01/26/2024	Temperature (Celsius)	10.7	degrees C
OM07	Compliance	R5	01/26/2024	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R5	01/26/2024	Total Dissolved Solids	720	mg/L
OM07	Compliance	R5	01/26/2024	Turbidity, field	128	NTU
OM12	Compliance	R5	01/29/2024	Antimony, total	0.00067	mg/L
OM12	Compliance	R5	01/29/2024	Arsenic, total	0.0220	mg/L
OM12	Compliance	R5	01/29/2024	Barium, total	0.250	mg/L
OM12	Compliance	R5	01/29/2024	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R5	01/29/2024	Boron, total	0.0690 J+	mg/L
OM12	Compliance	R5	01/29/2024	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R5	01/29/2024	Calcium, total	300	mg/L
OM12	Compliance	R5	01/29/2024	Chloride, total	4.9	mg/L
OM12	Compliance	R5	01/29/2024	Chromium, total	0.00400	mg/L
OM12	Compliance	R5	01/29/2024	Cobalt, total	0.00300	mg/L
OM12	Compliance	R5	01/29/2024	Dissolved Oxygen	2.00	mg/L
OM12	Compliance	R5	01/29/2024	Fluoride, total	0.242	mg/L
OM12	Compliance	R5	01/29/2024	Lead, total	0.00470	mg/L
OM12	Compliance	R5	01/29/2024	Lithium, total	0.005 U	mg/L
OM12	Compliance	R5	01/29/2024	Mercury, total	0.00015	mg/L
OM12	Compliance	R5	01/29/2024	Molybdenum, total	0.00280	mg/L
OM12	Compliance	R5	01/29/2024	Oxidation Reduction Potential	-75.0	mV
OM12	Compliance	R5	01/29/2024	pH (field)	6.4	SU
OM12	Compliance	R5	01/29/2024	Radium 226 + Radium 228, total	1.65	pCi/L
OM12	Compliance	R5	01/29/2024	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R5	01/29/2024	Specific Conductance @ 25C (field)	1,870	micromhos/cm
OM12	Compliance	R5	01/29/2024	Sulfate, total	490	mg/L
OM12	Compliance	R5	01/29/2024	Temperature (Celsius)	10.2	degrees C
OM12	Compliance	R5	01/29/2024	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R5	01/29/2024	Total Dissolved Solids	1,300	mg/L
OM12	Compliance	R5	01/29/2024	Turbidity, field	727	NTU
OM21	Compliance	R5	01/25/2024	Antimony, total	0.00043 U	mg/L
OM21	Compliance	R5	01/25/2024	Arsenic, total	0.00220	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R5	01/25/2024	Barium, total	0.0350	mg/L
OM21	Compliance	R5	01/25/2024	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R5	01/25/2024	Boron, total	9.00	mg/L
OM21	Compliance	R5	01/25/2024	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R5	01/25/2024	Calcium, total	320	mg/L
OM21	Compliance	R5	01/25/2024	Chloride, total	260	mg/L
OM21	Compliance	R5	01/25/2024	Chromium, total	0.00560	mg/L
OM21	Compliance	R5	01/25/2024	Cobalt, total	0.00330	mg/L
OM21	Compliance	R5	01/25/2024	Dissolved Oxygen	0.660	mg/L
OM21	Compliance	R5	01/25/2024	Fluoride, total	0.251	mg/L
OM21	Compliance	R5	01/25/2024	Lead, total	0.00360	mg/L
OM21	Compliance	R5	01/25/2024	Lithium, total	0.0410	mg/L
OM21	Compliance	R5	01/25/2024	Mercury, total	0.00014 U	mg/L
OM21	Compliance	R5	01/25/2024	Molybdenum, total	0.00220	mg/L
OM21	Compliance	R5	01/25/2024	Oxidation Reduction Potential	-37.0	mV
OM21	Compliance	R5	01/25/2024	pH (field)	6.4	SU
OM21	Compliance	R5	01/25/2024	Radium 226 + Radium 228, total	1.56	pCi/L
OM21	Compliance	R5	01/25/2024	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R5	01/25/2024	Specific Conductance @ 25C (field)	3,430	micromhos/cm
OM21	Compliance	R5	01/25/2024	Sulfate, total	1,100	mg/L
OM21	Compliance	R5	01/25/2024	Temperature (Celsius)	10.9	degrees C
OM21	Compliance	R5	01/25/2024	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R5	01/25/2024	Total Dissolved Solids	2,500	mg/L
OM21	Compliance	R5	01/25/2024	Turbidity, field	982	NTU
OM22D	Compliance	R5	01/25/2024	Antimony, total	0.00043 U	mg/L
OM22D	Compliance	R5	01/25/2024	Arsenic, total	0.00950	mg/L
OM22D	Compliance	R5	01/25/2024	Barium, total	0.250	mg/L
OM22D	Compliance	R5	01/25/2024	Beryllium, total	0.00150	mg/L
OM22D	Compliance	R5	01/25/2024	Boron, total	51.0	mg/L
OM22D	Compliance	R5	01/25/2024	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R5	01/25/2024	Calcium, total	590	mg/L
OM22D	Compliance	R5	01/25/2024	Chloride, total	920	mg/L
OM22D	Compliance	R5	01/25/2024	Chromium, total	0.0400	mg/L
OM22D	Compliance	R5	01/25/2024	Cobalt, total	0.0260	mg/L
OM22D	Compliance	R5	01/25/2024	Dissolved Oxygen	0.610	mg/L
OM22D	Compliance	R5	01/25/2024	Fluoride, total	0.204	mg/L
OM22D	Compliance	R5	01/25/2024	Lead, total	0.0150	mg/L
OM22D	Compliance	R5	01/25/2024	Lithium, total	0.0770	mg/L
OM22D	Compliance	R5	01/25/2024	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R5	01/25/2024	Molybdenum, total	0.0810	mg/L
OM22D	Compliance	R5	01/25/2024	Oxidation Reduction Potential	9.00	mV
OM22D	Compliance	R5	01/25/2024	pH (field)	6.3	SU
OM22D	Compliance	R5	01/25/2024	Radium 226 + Radium 228, total	2.71	pCi/L
OM22D	Compliance	R5	01/25/2024	Selenium, total	0.00110	mg/L
OM22D	Compliance	R5	01/25/2024	Specific Conductance @ 25C (field)	4,030	micromhos/cm
OM22D	Compliance	R5	01/25/2024	Sulfate, total	1,200	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R5	01/25/2024	Temperature (Celsius)	10.9	degrees C
OM22D	Compliance	R5	01/25/2024	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R5	01/25/2024	Total Dissolved Solids	3,500 J	mg/L
OM22D	Compliance	R5	01/25/2024	Turbidity, field	0	NTU
OM23D	Compliance	R5	01/25/2024	Antimony, total	0.00043 U	mg/L
OM23D	Compliance	R5	01/25/2024	Arsenic, total	0.00160	mg/L
OM23D	Compliance	R5	01/25/2024	Barium, total	0.0280	mg/L
OM23D	Compliance	R5	01/25/2024	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R5	01/25/2024	Boron, total	1.90	mg/L
OM23D	Compliance	R5	01/25/2024	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R5	01/25/2024	Calcium, total	170	mg/L
OM23D	Compliance	R5	01/25/2024	Chloride, total	28.0	mg/L
OM23D	Compliance	R5	01/25/2024	Chromium, total	0.0028 U	mg/L
OM23D	Compliance	R5	01/25/2024	Cobalt, total	0.00079	mg/L
OM23D	Compliance	R5	01/25/2024	Dissolved Oxygen	0.450	mg/L
OM23D	Compliance	R5	01/25/2024	Fluoride, total	0.205	mg/L
OM23D	Compliance	R5	01/25/2024	Lead, total	0.00081	mg/L
OM23D	Compliance	R5	01/25/2024	Lithium, total	0.0350	mg/L
OM23D	Compliance	R5	01/25/2024	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R5	01/25/2024	Molybdenum, total	0.00230	mg/L
OM23D	Compliance	R5	01/25/2024	Oxidation Reduction Potential	-39.0	mV
OM23D	Compliance	R5	01/25/2024	pH (field)	6.6	SU
OM23D	Compliance	R5	01/25/2024	Radium 226 + Radium 228, total	2.07	pCi/L
OM23D	Compliance	R5	01/25/2024	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R5	01/25/2024	Specific Conductance @ 25C (field)	1,720	micromhos/cm
OM23D	Compliance	R5	01/25/2024	Sulfate, total	420	mg/L
OM23D	Compliance	R5	01/25/2024	Temperature (Celsius)	11.2	degrees C
OM23D	Compliance	R5	01/25/2024	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R5	01/25/2024	Total Dissolved Solids	1,400	mg/L
OM23D	Compliance	R5	01/25/2024	Turbidity, field	196	NTU
OM24D	Compliance	R5	01/30/2024	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R5	01/30/2024	Arsenic, total	0.00360 J	mg/L
OM24D	Compliance	R5	01/30/2024	Barium, total	0.0180	mg/L
OM24D	Compliance	R5	01/30/2024	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R5	01/30/2024	Boron, total	28.0	mg/L
OM24D	Compliance	R5	01/30/2024	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R5	01/30/2024	Calcium, total	420	mg/L
OM24D	Compliance	R5	01/30/2024	Chloride, total	530	mg/L
OM24D	Compliance	R5	01/30/2024	Chromium, total	0.0028 U	mg/L
OM24D	Compliance	R5	01/30/2024	Cobalt, total	0.00048 U	mg/L
OM24D	Compliance	R5	01/30/2024	Dissolved Oxygen	0	mg/L
OM24D	Compliance	R5	01/30/2024	Fluoride, total	0.232	mg/L
OM24D	Compliance	R5	01/30/2024	Lead, total	0.00036	mg/L
OM24D	Compliance	R5	01/30/2024	Lithium, total	0.011	mg/L
OM24D	Compliance	R5	01/30/2024	Mercury, total	0.00014	mg/L
OM24D	Compliance	R5	01/30/2024	Molybdenum, total	0.00450	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R5	01/30/2024	Oxidation Reduction Potential	9.00	mV
OM24D	Compliance	R5	01/30/2024	pH (field)	6.8	SU
OM24D	Compliance	R5	01/30/2024	Radium 226 + Radium 228, total	0.430	pCi/L
OM24D	Compliance	R5	01/30/2024	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R5	01/30/2024	Specific Conductance @ 25C (field)	3,130	micromhos/cm
OM24D	Compliance	R5	01/30/2024	Sulfate, total	860	mg/L
OM24D	Compliance	R5	01/30/2024	Temperature (Celsius)	9.40	degrees C
OM24D	Compliance	R5	01/30/2024	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R5	01/30/2024	Total Dissolved Solids	2,300	mg/L
OM24D	Compliance	R5	01/30/2024	Turbidity, field	196	NTU
OM25S	Compliance	R5	01/30/2024	Antimony, total	0.00043 U	mg/L
OM25S	Compliance	R5	01/30/2024	Arsenic, total	0.00720	mg/L
OM25S	Compliance	R5	01/30/2024	Barium, total	0.0890	mg/L
OM25S	Compliance	R5	01/30/2024	Beryllium, total	0.00092	mg/L
OM25S	Compliance	R5	01/30/2024	Boron, total	36.0	mg/L
OM25S	Compliance	R5	01/30/2024	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R5	01/30/2024	Calcium, total	380	mg/L
OM25S	Compliance	R5	01/30/2024	Chloride, total	630	mg/L
OM25S	Compliance	R5	01/30/2024	Chromium, total	0.0230	mg/L
OM25S	Compliance	R5	01/30/2024	Cobalt, total	0.0170	mg/L
OM25S	Compliance	R5	01/30/2024	Dissolved Oxygen	1.90	mg/L
OM25S	Compliance	R5	01/30/2024	Fluoride, total	0.162	mg/L
OM25S	Compliance	R5	01/30/2024	Lead, total	0.0130	mg/L
OM25S	Compliance	R5	01/30/2024	Lithium, total	0.0800	mg/L
OM25S	Compliance	R5	01/30/2024	Mercury, total	0.00014	mg/L
OM25S	Compliance	R5	01/30/2024	Molybdenum, total	0.00300	mg/L
OM25S	Compliance	R5	01/30/2024	Oxidation Reduction Potential	31.0	mV
OM25S	Compliance	R5	01/30/2024	pH (field)	6.9	SU
OM25S	Compliance	R5	01/30/2024	Radium 226 + Radium 228, total	2.13	pCi/L
OM25S	Compliance	R5	01/30/2024	Selenium, total	0.00074 U	mg/L
OM25S	Compliance	R5	01/30/2024	Specific Conductance @ 25C (field)	3,430	micromhos/cm
OM25S	Compliance	R5	01/30/2024	Sulfate, total	720	mg/L
OM25S	Compliance	R5	01/30/2024	Temperature (Celsius)	10.0	degrees C
OM25S	Compliance	R5	01/30/2024	Thallium, total	0.00038 U	mg/L
OM25S	Compliance	R5	01/30/2024	Total Dissolved Solids	2,500	mg/L
OM25S	Compliance	R5	01/30/2024	Turbidity, field	0	NTU
OR02	Compliance	R5	01/30/2024	Antimony, total	0.00043 U	mg/L
OR02	Compliance	R5	01/30/2024	Arsenic, total	0.00460	mg/L
OR02	Compliance	R5	01/30/2024	Barium, total	0.0400	mg/L
OR02	Compliance	R5	01/30/2024	Beryllium, total	0.00059 U	mg/L
OR02	Compliance	R5	01/30/2024	Boron, total	4.80	mg/L
OR02	Compliance	R5	01/30/2024	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R5	01/30/2024	Calcium, total	230	mg/L
OR02	Compliance	R5	01/30/2024	Chloride, total	170	mg/L
OR02	Compliance	R5	01/30/2024	Chromium, total	0.0028 U	mg/L
OR02	Compliance	R5	01/30/2024	Cobalt, total	0.00580	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R5	01/30/2024	Dissolved Oxygen	1.30	mg/L
OR02	Compliance	R5	01/30/2024	Fluoride, total	0.218	mg/L
OR02	Compliance	R5	01/30/2024	Lead, total	0.00150	mg/L
OR02	Compliance	R5	01/30/2024	Lithium, total	0.0058	mg/L
OR02	Compliance	R5	01/30/2024	Mercury, total	0.00014 U	mg/L
OR02	Compliance	R5	01/30/2024	Molybdenum, total	0.00220	mg/L
OR02	Compliance	R5	01/30/2024	Oxidation Reduction Potential	12.0	mV
OR02	Compliance	R5	01/30/2024	pH (field)	6.8	SU
OR02	Compliance	R5	01/30/2024	Radium 226 + Radium 228, total	1.46	pCi/L
OR02	Compliance	R5	01/30/2024	Selenium, total	0.00074 U	mg/L
OR02	Compliance	R5	01/30/2024	Specific Conductance @ 25C (field)	1,420	micromhos/cm
OR02	Compliance	R5	01/30/2024	Sulfate, total	270	mg/L
OR02	Compliance	R5	01/30/2024	Temperature (Celsius)	9.70	degrees C
OR02	Compliance	R5	01/30/2024	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R5	01/30/2024	Total Dissolved Solids	1,200	mg/L
OR02	Compliance	R5	01/30/2024	Turbidity, field	85.6	NTU
OR03D	Compliance	R5	01/25/2024	Antimony, total	0.00043 U	mg/L
OR03D	Compliance	R5	01/25/2024	Arsenic, total	0.00660	mg/L
OR03D	Compliance	R5	01/25/2024	Barium, total	0.130	mg/L
OR03D	Compliance	R5	01/25/2024	Beryllium, total	0.00078	mg/L
OR03D	Compliance	R5	01/25/2024	Boron, total	55.0	mg/L
OR03D	Compliance	R5	01/25/2024	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R5	01/25/2024	Calcium, total	550	mg/L
OR03D	Compliance	R5	01/25/2024	Chloride, total	1,400	mg/L
OR03D	Compliance	R5	01/25/2024	Chromium, total	0.0250	mg/L
OR03D	Compliance	R5	01/25/2024	Cobalt, total	0.0130	mg/L
OR03D	Compliance	R5	01/25/2024	Dissolved Oxygen	0.570	mg/L
OR03D	Compliance	R5	01/25/2024	Fluoride, total	0.218	mg/L
OR03D	Compliance	R5	01/25/2024	Lead, total	0.0100	mg/L
OR03D	Compliance	R5	01/25/2024	Lithium, total	0.0610	mg/L
OR03D	Compliance	R5	01/25/2024	Mercury, total	0.00014 U	mg/L
OR03D	Compliance	R5	01/25/2024	Molybdenum, total	0.00560	mg/L
OR03D	Compliance	R5	01/25/2024	Oxidation Reduction Potential	-13.0	mV
OR03D	Compliance	R5	01/25/2024	pH (field)	6.5	SU
OR03D	Compliance	R5	01/25/2024	Radium 226 + Radium 228, total	3.51	pCi/L
OR03D	Compliance	R5	01/25/2024	Selenium, total	0.00110	mg/L
OR03D	Compliance	R5	01/25/2024	Specific Conductance @ 25C (field)	3,590	micromhos/cm
OR03D	Compliance	R5	01/25/2024	Sulfate, total	680	mg/L
OR03D	Compliance	R5	01/25/2024	Temperature (Celsius)	11.7	degrees C
OR03D	Compliance	R5	01/25/2024	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R5	01/25/2024	Total Dissolved Solids	4,200	mg/L
OR03D	Compliance	R5	01/25/2024	Turbidity, field	369	NTU
OR04D	Compliance	R5	01/24/2024	Antimony, total	0.00043 U	mg/L
OR04D	Compliance	R5	01/24/2024	Arsenic, total	0.00380	mg/L
OR04D	Compliance	R5	01/24/2024	Barium, total	0.0410	mg/L
OR04D	Compliance	R5	01/24/2024	Beryllium, total	0.00059 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R5	01/24/2024	Boron, total	100	mg/L
OR04D	Compliance	R5	01/24/2024	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R5	01/24/2024	Calcium, total	740	mg/L
OR04D	Compliance	R5	01/24/2024	Chloride, total	1,300	mg/L
OR04D	Compliance	R5	01/24/2024	Chromium, total	0.00610	mg/L
OR04D	Compliance	R5	01/24/2024	Cobalt, total	0.00340	mg/L
OR04D	Compliance	R5	01/24/2024	Dissolved Oxygen	1.40	mg/L
OR04D	Compliance	R5	01/24/2024	Fluoride, total	0.241	mg/L
OR04D	Compliance	R5	01/24/2024	Lead, total	0.00290 J+	mg/L
OR04D	Compliance	R5	01/24/2024	Lithium, total	0.0670	mg/L
OR04D	Compliance	R5	01/24/2024	Mercury, total	0.00017	mg/L
OR04D	Compliance	R5	01/24/2024	Molybdenum, total	0.00420	mg/L
OR04D	Compliance	R5	01/24/2024	Oxidation Reduction Potential	21.0	mV
OR04D	Compliance	R5	01/24/2024	pH (field)	6.6	SU
OR04D	Compliance	R5	01/24/2024	Radium 226 + Radium 228, total	2.43	pCi/L
OR04D	Compliance	R5	01/24/2024	Selenium, total	0.00074 U	mg/L
OR04D	Compliance	R5	01/24/2024	Specific Conductance @ 25C (field)	5,310	micromhos/cm
OR04D	Compliance	R5	01/24/2024	Sulfate, total	1,200	mg/L
OR04D	Compliance	R5	01/24/2024	Temperature (Celsius)	11.3	degrees C
OR04D	Compliance	R5	01/24/2024	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R5	01/24/2024	Total Dissolved Solids	4,700	mg/L
OR04D	Compliance	R5	01/24/2024	Turbidity, field	596	NTU
OR06A	Compliance	R5	02/06/2024	Antimony, total	0.00087 U	mg/L
OR06A	Compliance	R5	02/06/2024	Arsenic, total	0.00950	mg/L
OR06A	Compliance	R5	02/06/2024	Barium, total	0.0350	mg/L
OR06A	Compliance	R5	02/06/2024	Beryllium, total	0.00074 U	mg/L
OR06A	Compliance	R5	02/06/2024	Boron, total	57.0	mg/L
OR06A	Compliance	R5	02/06/2024	Cadmium, total	0.003 U	mg/L
OR06A	Compliance	R5	02/06/2024	Calcium, total	430	mg/L
OR06A	Compliance	R5	02/06/2024	Chloride, total	560	mg/L
OR06A	Compliance	R5	02/06/2024	Chromium, total	0.011 U	mg/L
OR06A	Compliance	R5	02/06/2024	Cobalt, total	0.0019 U	mg/L
OR06A	Compliance	R5	02/06/2024	Dissolved Oxygen	2.30	mg/L
OR06A	Compliance	R5	02/06/2024	Fluoride, total	0.178	mg/L
OR06A	Compliance	R5	02/06/2024	Lead, total	0.0012	mg/L
OR06A	Compliance	R5	02/06/2024	Lithium, total	0.0093	mg/L
OR06A	Compliance	R5	02/06/2024	Mercury, total	0.00029 U	mg/L
OR06A	Compliance	R5	02/06/2024	Molybdenum, total	0.0700	mg/L
OR06A	Compliance	R5	02/06/2024	Oxidation Reduction Potential	127	mV
OR06A	Compliance	R5	02/06/2024	pH (field)	6.3	SU
OR06A	Compliance	R5	02/06/2024	Radium 226 + Radium 228, total	0.844	pCi/L
OR06A	Compliance	R5	02/06/2024	Selenium, total	0.0029 U	mg/L
OR06A	Compliance	R5	02/06/2024	Specific Conductance @ 25C (field)	3,610	micromhos/cm
OR06A	Compliance	R5	02/06/2024	Sulfate, total	630	mg/L
OR06A	Compliance	R5	02/06/2024	Temperature (Celsius)	12.8	degrees C
OR06A	Compliance	R5	02/06/2024	Thallium, total	0.00076 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R5	02/06/2024	Total Dissolved Solids	2,400	mg/L
OR06A	Compliance	R5	02/06/2024	Turbidity, field	466	NTU
OR11	Compliance	R5	01/26/2024	Antimony, total	0.00043 U	mg/L
OR11	Compliance	R5	01/26/2024	Arsenic, total	0.00230	mg/L
OR11	Compliance	R5	01/26/2024	Barium, total	0.0410	mg/L
OR11	Compliance	R5	01/26/2024	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R5	01/26/2024	Boron, total	12.0	mg/L
OR11	Compliance	R5	01/26/2024	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R5	01/26/2024	Calcium, total	150	mg/L
OR11	Compliance	R5	01/26/2024	Chloride, total	87.0	mg/L
OR11	Compliance	R5	01/26/2024	Chromium, total	0.0028 U	mg/L
OR11	Compliance	R5	01/26/2024	Cobalt, total	0.00058 J	mg/L
OR11	Compliance	R5	01/26/2024	Dissolved Oxygen	0.470	mg/L
OR11	Compliance	R5	01/26/2024	Fluoride, total	0.279	mg/L
OR11	Compliance	R5	01/26/2024	Lead, total	0.00052 J	mg/L
OR11	Compliance	R5	01/26/2024	Lithium, total	0.014	mg/L
OR11	Compliance	R5	01/26/2024	Mercury, total	0.00014 U	mg/L
OR11	Compliance	R5	01/26/2024	Molybdenum, total	0.00630	mg/L
OR11	Compliance	R5	01/26/2024	Oxidation Reduction Potential	17.0	mV
OR11	Compliance	R5	01/26/2024	pH (field)	7.5	SU
OR11	Compliance	R5	01/26/2024	Radium 226 + Radium 228, total	0.840	pCi/L
OR11	Compliance	R5	01/26/2024	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R5	01/26/2024	Specific Conductance @ 25C (field)	1,150	micromhos/cm
OR11	Compliance	R5	01/26/2024	Sulfate, total	180	mg/L
OR11	Compliance	R5	01/26/2024	Temperature (Celsius)	10.3	degrees C
OR11	Compliance	R5	01/26/2024	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R5	01/26/2024	Total Dissolved Solids	780 J	mg/L
OR11	Compliance	R5	01/26/2024	Turbidity, field	328	NTU
OR13S	Compliance	R5	01/29/2024	Antimony, total	0.00058	mg/L
OR13S	Compliance	R5	01/29/2024	Arsenic, total	0.0230	mg/L
OR13S	Compliance	R5	01/29/2024	Barium, total	0.0390 J+	mg/L
OR13S	Compliance	R5	01/29/2024	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R5	01/29/2024	Boron, total	2.10	mg/L
OR13S	Compliance	R5	01/29/2024	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R5	01/29/2024	Calcium, total	320	mg/L
OR13S	Compliance	R5	01/29/2024	Chloride, total	29.0	mg/L
OR13S	Compliance	R5	01/29/2024	Chromium, total	0.0028 U	mg/L
OR13S	Compliance	R5	01/29/2024	Cobalt, total	0.00300	mg/L
OR13S	Compliance	R5	01/29/2024	Dissolved Oxygen	2.00	mg/L
OR13S	Compliance	R5	01/29/2024	Fluoride, total	0.232	mg/L
OR13S	Compliance	R5	01/29/2024	Lead, total	0.00200	mg/L
OR13S	Compliance	R5	01/29/2024	Lithium, total	0.016	mg/L
OR13S	Compliance	R5	01/29/2024	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R5	01/29/2024	Molybdenum, total	0.00560	mg/L
OR13S	Compliance	R5	01/29/2024	Oxidation Reduction Potential	-19.0	mV
OR13S	Compliance	R5	01/29/2024	pH (field)	6.7	SU

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R5	01/29/2024	Radium 226 + Radium 228, total	1.69	pCi/L
OR13S	Compliance	R5	01/29/2024	Selenium, total	0.00074 U	mg/L
OR13S	Compliance	R5	01/29/2024	Specific Conductance @ 25C (field)	1,950	micromhos/cm
OR13S	Compliance	R5	01/29/2024	Sulfate, total	880	mg/L
OR13S	Compliance	R5	01/29/2024	Temperature (Celsius)	9.80	degrees C
OR13S	Compliance	R5	01/29/2024	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R5	01/29/2024	Total Dissolved Solids	1,700	mg/L
OR13S	Compliance	R5	01/29/2024	Turbidity, field	244	NTU
OR13D	Compliance	R5	01/30/2024	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R5	01/30/2024	Arsenic, total	0.00500	mg/L
OR13D	Compliance	R5	01/30/2024	Barium, total	0.0320	mg/L
OR13D	Compliance	R5	01/30/2024	Beryllium, total	0.00059 U	mg/L
OR13D	Compliance	R5	01/30/2024	Boron, total	1.80	mg/L
OR13D	Compliance	R5	01/30/2024	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R5	01/30/2024	Calcium, total	110	mg/L
OR13D	Compliance	R5	01/30/2024	Chloride, total	46.0	mg/L
OR13D	Compliance	R5	01/30/2024	Chromium, total	0.0028 U	mg/L
OR13D	Compliance	R5	01/30/2024	Cobalt, total	0.00057	mg/L
OR13D	Compliance	R5	01/30/2024	Dissolved Oxygen	1.10	mg/L
OR13D	Compliance	R5	01/30/2024	Fluoride, total	0.282	mg/L
OR13D	Compliance	R5	01/30/2024	Lead, total	0.00079	mg/L
OR13D	Compliance	R5	01/30/2024	Lithium, total	0.0280	mg/L
OR13D	Compliance	R5	01/30/2024	Mercury, total	0.00014 U	mg/L
OR13D	Compliance	R5	01/30/2024	Molybdenum, total	0.00750	mg/L
OR13D	Compliance	R5	01/30/2024	Oxidation Reduction Potential	-30.0	mV
OR13D	Compliance	R5	01/30/2024	pH (field)	7.5	SU
OR13D	Compliance	R5	01/30/2024	Radium 226 + Radium 228, total	1.42	pCi/L
OR13D	Compliance	R5	01/30/2024	Selenium, total	0.00074 U	mg/L
OR13D	Compliance	R5	01/30/2024	Specific Conductance @ 25C (field)	1,760	micromhos/cm
OR13D	Compliance	R5	01/30/2024	Sulfate, total	280	mg/L
OR13D	Compliance	R5	01/30/2024	Temperature (Celsius)	10.3	degrees C
OR13D	Compliance	R5	01/30/2024	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R5	01/30/2024	Total Dissolved Solids	1,100	mg/L
OR13D	Compliance	R5	01/30/2024	Turbidity, field	124	NTU
OR14D	Compliance	R5	01/24/2024	Antimony, total	0.0011	mg/L
OR14D	Compliance	R5	01/24/2024	Arsenic, total	0.0130	mg/L
OR14D	Compliance	R5	01/24/2024	Barium, total	0.130	mg/L
OR14D	Compliance	R5	01/24/2024	Beryllium, total	0.00120	mg/L
OR14D	Compliance	R5	01/24/2024	Boron, total	24.0	mg/L
OR14D	Compliance	R5	01/24/2024	Cadmium, total	0.00140	mg/L
OR14D	Compliance	R5	01/24/2024	Calcium, total	460	mg/L
OR14D	Compliance	R5	01/24/2024	Chloride, total	420	mg/L
OR14D	Compliance	R5	01/24/2024	Chromium, total	0.0320	mg/L
OR14D	Compliance	R5	01/24/2024	Cobalt, total	0.0180	mg/L
OR14D	Compliance	R5	01/24/2024	Dissolved Oxygen	1.20	mg/L
OR14D	Compliance	R5	01/24/2024	Fluoride, total	0.259	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R5	01/24/2024	Lead, total	0.0210	mg/L
OR14D	Compliance	R5	01/24/2024	Lithium, total	0.0470	mg/L
OR14D	Compliance	R5	01/24/2024	Mercury, total	0.00014 U	mg/L
OR14D	Compliance	R5	01/24/2024	Molybdenum, total	0.00870	mg/L
OR14D	Compliance	R5	01/24/2024	Oxidation Reduction Potential	28.0	mV
OR14D	Compliance	R5	01/24/2024	pH (field)	6.8	SU
OR14D	Compliance	R5	01/24/2024	Radium 226 + Radium 228, total	3.51	pCi/L
OR14D	Compliance	R5	01/24/2024	Selenium, total	0.00270	mg/L
OR14D	Compliance	R5	01/24/2024	Specific Conductance @ 25C (field)	2,360	micromhos/cm
OR14D	Compliance	R5	01/24/2024	Sulfate, total	720	mg/L
OR14D	Compliance	R5	01/24/2024	Temperature (Celsius)	11.0	degrees C
OR14D	Compliance	R5	01/24/2024	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R5	01/24/2024	Total Dissolved Solids	2,400 J	mg/L
OR14D	Compliance	R5	01/24/2024	Turbidity, field	0	NTU
OR19	Compliance	R5	01/29/2024	Antimony, total	0.00046	mg/L
OR19	Compliance	R5	01/29/2024	Arsenic, total	0.0100	mg/L
OR19	Compliance	R5	01/29/2024	Barium, total	0.160	mg/L
OR19	Compliance	R5	01/29/2024	Beryllium, total	0.00130	mg/L
OR19	Compliance	R5	01/29/2024	Boron, total	14.0	mg/L
OR19	Compliance	R5	01/29/2024	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R5	01/29/2024	Calcium, total	360	mg/L
OR19	Compliance	R5	01/29/2024	Chloride, total	150	mg/L
OR19	Compliance	R5	01/29/2024	Chromium, total	0.0370	mg/L
OR19	Compliance	R5	01/29/2024	Cobalt, total	0.0180	mg/L
OR19	Compliance	R5	01/29/2024	Dissolved Oxygen	2.10	mg/L
OR19	Compliance	R5	01/29/2024	Fluoride, total	0.388	mg/L
OR19	Compliance	R5	01/29/2024	Lead, total	0.0270	mg/L
OR19	Compliance	R5	01/29/2024	Lithium, total	0.0420	mg/L
OR19	Compliance	R5	01/29/2024	Mercury, total	0.00014	mg/L
OR19	Compliance	R5	01/29/2024	Molybdenum, total	0.00580	mg/L
OR19	Compliance	R5	01/29/2024	Oxidation Reduction Potential	-33.0	mV
OR19	Compliance	R5	01/29/2024	pH (field)	6.6	SU
OR19	Compliance	R5	01/29/2024	Radium 226 + Radium 228, total	2.36	pCi/L
OR19	Compliance	R5	01/29/2024	Selenium, total	0.00190	mg/L
OR19	Compliance	R5	01/29/2024	Specific Conductance @ 25C (field)	2,510	micromhos/cm
OR19	Compliance	R5	01/29/2024	Sulfate, total	910	mg/L
OR19	Compliance	R5	01/29/2024	Temperature (Celsius)	9.50	degrees C
OR19	Compliance	R5	01/29/2024	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R5	01/29/2024	Total Dissolved Solids	2,100 J	mg/L
OR19	Compliance	R5	01/29/2024	Turbidity, field	589	NTU
OR20	Compliance	R5	01/26/2024	Antimony, total	0.00059	mg/L
OR20	Compliance	R5	01/26/2024	Arsenic, total	0.0220	mg/L
OR20	Compliance	R5	01/26/2024	Barium, total	0.0600	mg/L
OR20	Compliance	R5	01/26/2024	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R5	01/26/2024	Boron, total	33.0	mg/L
OR20	Compliance	R5	01/26/2024	Cadmium, total	0.00074 U	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R5	01/26/2024	Calcium, total	250	mg/L
OR20	Compliance	R5	01/26/2024	Chloride, total	330	mg/L
OR20	Compliance	R5	01/26/2024	Chromium, total	0.0140	mg/L
OR20	Compliance	R5	01/26/2024	Cobalt, total	0.00620	mg/L
OR20	Compliance	R5	01/26/2024	Dissolved Oxygen	0	mg/L
OR20	Compliance	R5	01/26/2024	Fluoride, total	0.502	mg/L
OR20	Compliance	R5	01/26/2024	Lead, total	0.00670	mg/L
OR20	Compliance	R5	01/26/2024	Lithium, total	0.0500	mg/L
OR20	Compliance	R5	01/26/2024	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R5	01/26/2024	Molybdenum, total	0.0410	mg/L
OR20	Compliance	R5	01/26/2024	Oxidation Reduction Potential	3.00	mV
OR20	Compliance	R5	01/26/2024	pH (field)	7.1	SU
OR20	Compliance	R5	01/26/2024	Radium 226 + Radium 228, total	2.25	pCi/L
OR20	Compliance	R5	01/26/2024	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R5	01/26/2024	Specific Conductance @ 25C (field)	2,340	micromhos/cm
OR20	Compliance	R5	01/26/2024	Sulfate, total	410	mg/L
OR20	Compliance	R5	01/26/2024	Temperature (Celsius)	9.60	degrees C
OR20	Compliance	R5	01/26/2024	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R5	01/26/2024	Total Dissolved Solids	1,500 J	mg/L
OR20	Compliance	R5	01/26/2024	Turbidity, field	979	NTU

Notes:
C = Celsius
cm = centimeter
Event IDs:
R5 = fifth round of sampling to establish background
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
Result Code (if applicable):
Result qualifiers as defined in the United States Environmental Protection Agency's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA 542-R-20-006. November 2020.:
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
SU = Standard Units

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R6	04/16/2024	Antimony, total	0.00043 U	mg/L
BA06	Background	R6	04/16/2024	Arsenic, total	0.00370	mg/L
BA06	Background	R6	04/16/2024	Barium, total	0.0990	mg/L
BA06	Background	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
BA06	Background	R6	04/16/2024	Boron, total	13.0	mg/L
BA06	Background	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
BA06	Background	R6	04/16/2024	Calcium, total	320	mg/L
BA06	Background	R6	04/16/2024	Chloride, total	550	mg/L
BA06	Background	R6	04/16/2024	Chromium, total	0.0028 U	mg/L
BA06	Background	R6	04/16/2024	Cobalt, total	0.00730	mg/L
BA06	Background	R6	04/16/2024	Dissolved Oxygen	2.00	mg/L
BA06	Background	R6	04/16/2024	Fluoride, total	0.308	mg/L
BA06	Background	R6	04/16/2024	Lead, total	0.00140	mg/L
BA06	Background	R6	04/16/2024	Lithium, total	0.006 J	mg/L
BA06	Background	R6	04/16/2024	Mercury, total	0.00014 J	mg/L
BA06	Background	R6	04/16/2024	Molybdenum, total	0.00150	mg/L
BA06	Background	R6	04/16/2024	Oxidation Reduction Potential	11.0	mV
BA06	Background	R6	04/16/2024	pH (field)	6.7	SU
BA06	Background	R6	04/16/2024	Radium 226 + Radium 228, total	1.77	pCi/L
BA06	Background	R6	04/16/2024	Selenium, total	0.00074 U	mg/L
BA06	Background	R6	04/16/2024	Specific Conductance @ 25C (field)	3,310	micromhos/cm
BA06	Background	R6	04/16/2024	Sulfate, total	380	mg/L
BA06	Background	R6	04/16/2024	Temperature (Celsius)	16.7	degrees C
BA06	Background	R6	04/16/2024	Thallium, total	0.00038 U	mg/L
BA06	Background	R6	04/16/2024	Total Dissolved Solids	1,800	mg/L
BA06	Background	R6	04/16/2024	Turbidity, field	0	NTU
OM16	Background	R6	04/15/2024	Antimony, total	0.00043 U	mg/L
OM16	Background	R6	04/15/2024	Arsenic, total	0.00069 U	mg/L
OM16	Background	R6	04/15/2024	Barium, total	0.0140	mg/L
OM16	Background	R6	04/15/2024	Beryllium, total	0.00059 U	mg/L
OM16	Background	R6	04/15/2024	Boron, total	0.0500	mg/L
OM16	Background	R6	04/15/2024	Cadmium, total	0.00074 U	mg/L
OM16	Background	R6	04/15/2024	Calcium, total	580	mg/L
OM16	Background	R6	04/15/2024	Chloride, total	6.90	mg/L
OM16	Background	R6	04/15/2024	Chromium, total	0.0028 U	mg/L
OM16	Background	R6	04/15/2024	Cobalt, total	0.00220	mg/L
OM16	Background	R6	04/15/2024	Dissolved Oxygen	0.350	mg/L
OM16	Background	R6	04/15/2024	Fluoride, total	0.156 J	mg/L
OM16	Background	R6	04/15/2024	Lead, total	0.00022 U	mg/L
OM16	Background	R6	04/15/2024	Lithium, total	0.0360	mg/L
OM16	Background	R6	04/15/2024	Mercury, total	0.00014 U	mg/L
OM16	Background	R6	04/15/2024	Molybdenum, total	0.00074 U	mg/L
OM16	Background	R6	04/15/2024	Oxidation Reduction Potential	322	mV
OM16	Background	R6	04/15/2024	pH (field)	6.4	SU
OM16	Background	R6	04/15/2024	Radium 226 + Radium 228, total	1.16	pCi/L
OM16	Background	R6	04/15/2024	Selenium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R6	04/15/2024	Specific Conductance @ 25C (field)	4,105	micromhos/cm
OM16	Background	R6	04/15/2024	Sulfate, total	2,200	mg/L
OM16	Background	R6	04/15/2024	Temperature (Celsius)	17.9	degrees C
OM16	Background	R6	04/15/2024	Thallium, total	0.00038 U	mg/L
OM16	Background	R6	04/15/2024	Total Dissolved Solids	3,600	mg/L
OM16	Background	R6	04/15/2024	Turbidity, field	71.8	NTU
OM17	Background	R6	04/15/2024	Antimony, total	0.00043 U	mg/L
OM17	Background	R6	04/15/2024	Arsenic, total	0.00069 U	mg/L
OM17	Background	R6	04/15/2024	Barium, total	0.0700	mg/L
OM17	Background	R6	04/15/2024	Beryllium, total	0.00059 U	mg/L
OM17	Background	R6	04/15/2024	Boron, total	0.140	mg/L
OM17	Background	R6	04/15/2024	Cadmium, total	0.00074 U	mg/L
OM17	Background	R6	04/15/2024	Calcium, total	110	mg/L
OM17	Background	R6	04/15/2024	Chloride, total	0.96 U	mg/L
OM17	Background	R6	04/15/2024	Chromium, total	0.0028 U	mg/L
OM17	Background	R6	04/15/2024	Cobalt, total	0.00053 J	mg/L
OM17	Background	R6	04/15/2024	Dissolved Oxygen	0.970	mg/L
OM17	Background	R6	04/15/2024	Fluoride, total	0.121 J	mg/L
OM17	Background	R6	04/15/2024	Lead, total	0.00022 U	mg/L
OM17	Background	R6	04/15/2024	Lithium, total	0.0081 J	mg/L
OM17	Background	R6	04/15/2024	Mercury, total	0.00014 U	mg/L
OM17	Background	R6	04/15/2024	Molybdenum, total	0.00074 U	mg/L
OM17	Background	R6	04/15/2024	Oxidation Reduction Potential	113	mV
OM17	Background	R6	04/15/2024	pH (field)	6.6	SU
OM17	Background	R6	04/15/2024	Radium 226 + Radium 228, total	1.17	pCi/L
OM17	Background	R6	04/15/2024	Selenium, total	0.00074 U	mg/L
OM17	Background	R6	04/15/2024	Specific Conductance @ 25C (field)	623	micromhos/cm
OM17	Background	R6	04/15/2024	Sulfate, total	67.0	mg/L
OM17	Background	R6	04/15/2024	Temperature (Celsius)	17.4	degrees C
OM17	Background	R6	04/15/2024	Thallium, total	0.00038 U	mg/L
OM17	Background	R6	04/15/2024	Total Dissolved Solids	400	mg/L
OM17	Background	R6	04/15/2024	Turbidity, field	29.1	NTU
OM01	Compliance	R6	04/18/2024	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R6	04/18/2024	Arsenic, total	0.00069 U	mg/L
OM01	Compliance	R6	04/18/2024	Barium, total	0.0150	mg/L
OM01	Compliance	R6	04/18/2024	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R6	04/18/2024	Boron, total	0.390 J	mg/L
OM01	Compliance	R6	04/18/2024	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R6	04/18/2024	Calcium, total	570	mg/L
OM01	Compliance	R6	04/18/2024	Chloride, total	34.0	mg/L
OM01	Compliance	R6	04/18/2024	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R6	04/18/2024	Cobalt, total	0.0130	mg/L
OM01	Compliance	R6	04/18/2024	Dissolved Oxygen	1.70	mg/L
OM01	Compliance	R6	04/18/2024	Fluoride, total	0.137 J	mg/L
OM01	Compliance	R6	04/18/2024	Lead, total	0.00022 U	mg/L
OM01	Compliance	R6	04/18/2024	Lithium, total	0.005 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R6	04/18/2024	Mercury, total	0.00014 U	mg/L
OM01	Compliance	R6	04/18/2024	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R6	04/18/2024	Oxidation Reduction Potential	125	mV
OM01	Compliance	R6	04/18/2024	pH (field)	6.4	SU
OM01	Compliance	R6	04/18/2024	Radium 226 + Radium 228, total	0.269	pCi/L
OM01	Compliance	R6	04/18/2024	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R6	04/18/2024	Specific Conductance @ 25C (field)	3,392	micromhos/cm
OM01	Compliance	R6	04/18/2024	Sulfate, total	1,800	mg/L
OM01	Compliance	R6	04/18/2024	Temperature (Celsius)	16.9	degrees C
OM01	Compliance	R6	04/18/2024	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R6	04/18/2024	Total Dissolved Solids	3,000	mg/L
OM01	Compliance	R6	04/18/2024	Turbidity, field	16.8	NTU
OM04S	Compliance	R6	04/16/2024	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R6	04/16/2024	Arsenic, total	0.00069 U	mg/L
OM04S	Compliance	R6	04/16/2024	Barium, total	0.0430	mg/L
OM04S	Compliance	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R6	04/16/2024	Boron, total	0.0890	mg/L
OM04S	Compliance	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R6	04/16/2024	Calcium, total	150	mg/L
OM04S	Compliance	R6	04/16/2024	Chloride, total	14.0	mg/L
OM04S	Compliance	R6	04/16/2024	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R6	04/16/2024	Cobalt, total	0.00230	mg/L
OM04S	Compliance	R6	04/16/2024	Dissolved Oxygen	0.510	mg/L
OM04S	Compliance	R6	04/16/2024	Fluoride, total	0.203 J	mg/L
OM04S	Compliance	R6	04/16/2024	Lead, total	0.00022 U	mg/L
OM04S	Compliance	R6	04/16/2024	Lithium, total	0.005 U	mg/L
OM04S	Compliance	R6	04/16/2024	Mercury, total	0.00014 U	mg/L
OM04S	Compliance	R6	04/16/2024	Molybdenum, total	0.00110	mg/L
OM04S	Compliance	R6	04/16/2024	Oxidation Reduction Potential	-15.9	mV
OM04S	Compliance	R6	04/16/2024	pH (field)	6.6	SU
OM04S	Compliance	R6	04/16/2024	Radium 226 + Radium 228, total	0.720	pCi/L
OM04S	Compliance	R6	04/16/2024	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R6	04/16/2024	Specific Conductance @ 25C (field)	1,123	micromhos/cm
OM04S	Compliance	R6	04/16/2024	Sulfate, total	140	mg/L
OM04S	Compliance	R6	04/16/2024	Temperature (Celsius)	19.5	degrees C
OM04S	Compliance	R6	04/16/2024	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R6	04/16/2024	Total Dissolved Solids	720	mg/L
OM04S	Compliance	R6	04/16/2024	Turbidity, field	6.12	NTU
OM07	Compliance	R6	04/18/2024	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R6	04/18/2024	Arsenic, total	0.00069 U	mg/L
OM07	Compliance	R6	04/18/2024	Barium, total	0.0460	mg/L
OM07	Compliance	R6	04/18/2024	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R6	04/18/2024	Boron, total	0.370	mg/L
OM07	Compliance	R6	04/18/2024	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R6	04/18/2024	Calcium, total	140	mg/L
OM07	Compliance	R6	04/18/2024	Chloride, total	11.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R6	04/18/2024	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R6	04/18/2024	Cobalt, total	0.0017 J	mg/L
OM07	Compliance	R6	04/18/2024	Dissolved Oxygen	0.650	mg/L
OM07	Compliance	R6	04/18/2024	Fluoride, total	0.254	mg/L
OM07	Compliance	R6	04/18/2024	Lead, total	0.00022 U	mg/L
OM07	Compliance	R6	04/18/2024	Lithium, total	0.005 U	mg/L
OM07	Compliance	R6	04/18/2024	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R6	04/18/2024	Molybdenum, total	0.00110	mg/L
OM07	Compliance	R6	04/18/2024	Oxidation Reduction Potential	74.1	mV
OM07	Compliance	R6	04/18/2024	pH (field)	6.8	SU
OM07	Compliance	R6	04/18/2024	Radium 226 + Radium 228, total	0.813	pCi/L
OM07	Compliance	R6	04/18/2024	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R6	04/18/2024	Specific Conductance @ 25C (field)	1,149	micromhos/cm
OM07	Compliance	R6	04/18/2024	Sulfate, total	190	mg/L
OM07	Compliance	R6	04/18/2024	Temperature (Celsius)	17.1	degrees C
OM07	Compliance	R6	04/18/2024	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R6	04/18/2024	Total Dissolved Solids	720	mg/L
OM07	Compliance	R6	04/18/2024	Turbidity, field	1.87	NTU
OM12	Compliance	R6	04/16/2024	Antimony, total	0.0013 J	mg/L
OM12	Compliance	R6	04/16/2024	Arsenic, total	0.0260	mg/L
OM12	Compliance	R6	04/16/2024	Barium, total	0.270	mg/L
OM12	Compliance	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R6	04/16/2024	Boron, total	0.0800	mg/L
OM12	Compliance	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R6	04/16/2024	Calcium, total	300	mg/L
OM12	Compliance	R6	04/16/2024	Chloride, total	3.30	mg/L
OM12	Compliance	R6	04/16/2024	Chromium, total	0.0028 U	mg/L
OM12	Compliance	R6	04/16/2024	Cobalt, total	0.0019 J	mg/L
OM12	Compliance	R6	04/16/2024	Dissolved Oxygen	0.400	mg/L
OM12	Compliance	R6	04/16/2024	Fluoride, total	0.198 J	mg/L
OM12	Compliance	R6	04/16/2024	Lead, total	0.0005 J	mg/L
OM12	Compliance	R6	04/16/2024	Lithium, total	0.005 U	mg/L
OM12	Compliance	R6	04/16/2024	Mercury, total	0.00014 U	mg/L
OM12	Compliance	R6	04/16/2024	Molybdenum, total	0.00290	mg/L
OM12	Compliance	R6	04/16/2024	Oxidation Reduction Potential	-60.3	mV
OM12	Compliance	R6	04/16/2024	pH (field)	6.4	SU
OM12	Compliance	R6	04/16/2024	Radium 226 + Radium 228, total	1.51	pCi/L
OM12	Compliance	R6	04/16/2024	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R6	04/16/2024	Specific Conductance @ 25C (field)	2,011	micromhos/cm
OM12	Compliance	R6	04/16/2024	Sulfate, total	460	mg/L
OM12	Compliance	R6	04/16/2024	Temperature (Celsius)	18.3	degrees C
OM12	Compliance	R6	04/16/2024	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R6	04/16/2024	Total Dissolved Solids	1,400	mg/L
OM12	Compliance	R6	04/16/2024	Turbidity, field	13.4	NTU
OM21	Compliance	R6	04/18/2024	Antimony, total	0.00043 U	mg/L
OM21	Compliance	R6	04/18/2024	Arsenic, total	0.00069 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R6	04/18/2024	Barium, total	0.0170	mg/L
OM21	Compliance	R6	04/18/2024	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R6	04/18/2024	Boron, total	8.00	mg/L
OM21	Compliance	R6	04/18/2024	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R6	04/18/2024	Calcium, total	310	mg/L
OM21	Compliance	R6	04/18/2024	Chloride, total	240	mg/L
OM21	Compliance	R6	04/18/2024	Chromium, total	0.0028 U	mg/L
OM21	Compliance	R6	04/18/2024	Cobalt, total	0.00048 U	mg/L
OM21	Compliance	R6	04/18/2024	Dissolved Oxygen	0.560	mg/L
OM21	Compliance	R6	04/18/2024	Fluoride, total	0.306	mg/L
OM21	Compliance	R6	04/18/2024	Lead, total	0.00022 U	mg/L
OM21	Compliance	R6	04/18/2024	Lithium, total	0.0400	mg/L
OM21	Compliance	R6	04/18/2024	Mercury, total	0.00014 U	mg/L
OM21	Compliance	R6	04/18/2024	Molybdenum, total	0.00190	mg/L
OM21	Compliance	R6	04/18/2024	Oxidation Reduction Potential	95.3	mV
OM21	Compliance	R6	04/18/2024	pH (field)	6.8	SU
OM21	Compliance	R6	04/18/2024	Radium 226 + Radium 228, total	0.305	pCi/L
OM21	Compliance	R6	04/18/2024	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R6	04/18/2024	Specific Conductance @ 25C (field)	3,095	micromhos/cm
OM21	Compliance	R6	04/18/2024	Sulfate, total	1,000	mg/L
OM21	Compliance	R6	04/18/2024	Temperature (Celsius)	18.5	degrees C
OM21	Compliance	R6	04/18/2024	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R6	04/18/2024	Total Dissolved Solids	2,400	mg/L
OM21	Compliance	R6	04/18/2024	Turbidity, field	3.02	NTU
OM22D	Compliance	R6	04/17/2024	Antimony, total	0.00043 U	mg/L
OM22D	Compliance	R6	04/17/2024	Arsenic, total	0.00470	mg/L
OM22D	Compliance	R6	04/17/2024	Barium, total	0.0810 J+	mg/L
OM22D	Compliance	R6	04/17/2024	Beryllium, total	0.00059 U	mg/L
OM22D	Compliance	R6	04/17/2024	Boron, total	48.0	mg/L
OM22D	Compliance	R6	04/17/2024	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R6	04/17/2024	Calcium, total	560	mg/L
OM22D	Compliance	R6	04/17/2024	Chloride, total	840	mg/L
OM22D	Compliance	R6	04/17/2024	Chromium, total	0.0360	mg/L
OM22D	Compliance	R6	04/17/2024	Cobalt, total	0.00710	mg/L
OM22D	Compliance	R6	04/17/2024	Dissolved Oxygen	1.00	mg/L
OM22D	Compliance	R6	04/17/2024	Fluoride, total	0.25 UJ	mg/L
OM22D	Compliance	R6	04/17/2024	Lead, total	0.00340	mg/L
OM22D	Compliance	R6	04/17/2024	Lithium, total	0.0610	mg/L
OM22D	Compliance	R6	04/17/2024	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R6	04/17/2024	Molybdenum, total	0.120	mg/L
OM22D	Compliance	R6	04/17/2024	Oxidation Reduction Potential	11.0	mV
OM22D	Compliance	R6	04/17/2024	pH (field)	6.6	SU
OM22D	Compliance	R6	04/17/2024	Radium 226 + Radium 228, total	1.08	pCi/L
OM22D	Compliance	R6	04/17/2024	Selenium, total	0.00074 U	mg/L
OM22D	Compliance	R6	04/17/2024	Specific Conductance @ 25C (field)	3,932	micromhos/cm
OM22D	Compliance	R6	04/17/2024	Sulfate, total	770	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R6	04/17/2024	Temperature (Celsius)	18.8	degrees C
OM22D	Compliance	R6	04/17/2024	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R6	04/17/2024	Total Dissolved Solids	3,700	mg/L
OM22D	Compliance	R6	04/17/2024	Turbidity, field	2,820	NTU
OM23D	Compliance	R6	04/17/2024	Antimony, total	0.00043 U	mg/L
OM23D	Compliance	R6	04/17/2024	Arsenic, total	0.00230	mg/L
OM23D	Compliance	R6	04/17/2024	Barium, total	0.0530 J+	mg/L
OM23D	Compliance	R6	04/17/2024	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R6	04/17/2024	Boron, total	1.90	mg/L
OM23D	Compliance	R6	04/17/2024	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R6	04/17/2024	Calcium, total	170	mg/L
OM23D	Compliance	R6	04/17/2024	Chloride, total	25.0	mg/L
OM23D	Compliance	R6	04/17/2024	Chromium, total	0.0100	mg/L
OM23D	Compliance	R6	04/17/2024	Cobalt, total	0.00280	mg/L
OM23D	Compliance	R6	04/17/2024	Dissolved Oxygen	1.80	mg/L
OM23D	Compliance	R6	04/17/2024	Fluoride, total	0.25 UJ	mg/L
OM23D	Compliance	R6	04/17/2024	Lead, total	0.00290	mg/L
OM23D	Compliance	R6	04/17/2024	Lithium, total	0.0410	mg/L
OM23D	Compliance	R6	04/17/2024	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R6	04/17/2024	Molybdenum, total	0.00300	mg/L
OM23D	Compliance	R6	04/17/2024	Oxidation Reduction Potential	-17.1	mV
OM23D	Compliance	R6	04/17/2024	pH (field)	6.7	SU
OM23D	Compliance	R6	04/17/2024	Radium 226 + Radium 228, total	1.74	pCi/L
OM23D	Compliance	R6	04/17/2024	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R6	04/17/2024	Specific Conductance @ 25C (field)	1,632	micromhos/cm
OM23D	Compliance	R6	04/17/2024	Sulfate, total	370	mg/L
OM23D	Compliance	R6	04/17/2024	Temperature (Celsius)	18.7	degrees C
OM23D	Compliance	R6	04/17/2024	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R6	04/17/2024	Total Dissolved Solids	1,200	mg/L
OM23D	Compliance	R6	04/17/2024	Turbidity, field	1,380	NTU
OM24D	Compliance	R6	04/15/2024	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R6	04/15/2024	Arsenic, total	0.00470	mg/L
OM24D	Compliance	R6	04/15/2024	Barium, total	0.0140	mg/L
OM24D	Compliance	R6	04/15/2024	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R6	04/15/2024	Boron, total	20.0	mg/L
OM24D	Compliance	R6	04/15/2024	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R6	04/15/2024	Calcium, total	400	mg/L
OM24D	Compliance	R6	04/15/2024	Chloride, total	420	mg/L
OM24D	Compliance	R6	04/15/2024	Chromium, total	0.0028 U	mg/L
OM24D	Compliance	R6	04/15/2024	Cobalt, total	0.00048 U	mg/L
OM24D	Compliance	R6	04/15/2024	Dissolved Oxygen	0.510	mg/L
OM24D	Compliance	R6	04/15/2024	Fluoride, total	0.238 J	mg/L
OM24D	Compliance	R6	04/15/2024	Lead, total	0.00022 U	mg/L
OM24D	Compliance	R6	04/15/2024	Lithium, total	0.011 J	mg/L
OM24D	Compliance	R6	04/15/2024	Mercury, total	0.00014 U	mg/L
OM24D	Compliance	R6	04/15/2024	Molybdenum, total	0.00490	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R6	04/15/2024	Oxidation Reduction Potential	-17.8	mV
OM24D	Compliance	R6	04/15/2024	pH (field)	6.6	SU
OM24D	Compliance	R6	04/15/2024	Radium 226 + Radium 228, total	1.21	pCi/L
OM24D	Compliance	R6	04/15/2024	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R6	04/15/2024	Specific Conductance @ 25C (field)	3,123	micromhos/cm
OM24D	Compliance	R6	04/15/2024	Sulfate, total	930	mg/L
OM24D	Compliance	R6	04/15/2024	Temperature (Celsius)	14.9	degrees C
OM24D	Compliance	R6	04/15/2024	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R6	04/15/2024	Total Dissolved Solids	2,200	mg/L
OM24D	Compliance	R6	04/15/2024	Turbidity, field	61.4	NTU
OM25S	Compliance	R6	04/17/2024	Antimony, total	0.00099 J	mg/L
OM25S	Compliance	R6	04/17/2024	Arsenic, total	0.0170	mg/L
OM25S	Compliance	R6	04/17/2024	Barium, total	0.250	mg/L
OM25S	Compliance	R6	04/17/2024	Beryllium, total	0.00250	mg/L
OM25S	Compliance	R6	04/17/2024	Boron, total	28.0	mg/L
OM25S	Compliance	R6	04/17/2024	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R6	04/17/2024	Calcium, total	390	mg/L
OM25S	Compliance	R6	04/17/2024	Chloride, total	480	mg/L
OM25S	Compliance	R6	04/17/2024	Chromium, total	0.0800	mg/L
OM25S	Compliance	R6	04/17/2024	Cobalt, total	0.0440	mg/L
OM25S	Compliance	R6	04/17/2024	Dissolved Oxygen	1.00	mg/L
OM25S	Compliance	R6	04/17/2024	Fluoride, total	0.25 UJ	mg/L
OM25S	Compliance	R6	04/17/2024	Lead, total	0.0340	mg/L
OM25S	Compliance	R6	04/17/2024	Lithium, total	0.140	mg/L
OM25S	Compliance	R6	04/17/2024	Mercury, total	0.00014 U	mg/L
OM25S	Compliance	R6	04/17/2024	Molybdenum, total	0.00560	mg/L
OM25S	Compliance	R6	04/17/2024	Oxidation Reduction Potential	-8.30	mV
OM25S	Compliance	R6	04/17/2024	pH (field)	6.5	SU
OM25S	Compliance	R6	04/17/2024	Radium 226 + Radium 228, total	1.89	pCi/L
OM25S	Compliance	R6	04/17/2024	Selenium, total	0.00160	mg/L
OM25S	Compliance	R6	04/17/2024	Specific Conductance @ 25C (field)	3,354	micromhos/cm
OM25S	Compliance	R6	04/17/2024	Sulfate, total	670	mg/L
OM25S	Compliance	R6	04/17/2024	Temperature (Celsius)	20.5	degrees C
OM25S	Compliance	R6	04/17/2024	Thallium, total	0.00038 J	mg/L
OM25S	Compliance	R6	04/17/2024	Total Dissolved Solids	2,700	mg/L
OM25S	Compliance	R6	04/17/2024	Turbidity, field	3,680	NTU
OR02	Compliance	R6	04/16/2024	Antimony, total	0.00043 U	mg/L
OR02	Compliance	R6	04/16/2024	Arsenic, total	0.00590	mg/L
OR02	Compliance	R6	04/16/2024	Barium, total	0.0430	mg/L
OR02	Compliance	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
OR02	Compliance	R6	04/16/2024	Boron, total	3.60	mg/L
OR02	Compliance	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R6	04/16/2024	Calcium, total	220	mg/L
OR02	Compliance	R6	04/16/2024	Chloride, total	19.0	mg/L
OR02	Compliance	R6	04/16/2024	Chromium, total	0.0028 U	mg/L
OR02	Compliance	R6	04/16/2024	Cobalt, total	0.00470	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R6	04/16/2024	Dissolved Oxygen	0.330	mg/L
OR02	Compliance	R6	04/16/2024	Fluoride, total	0.184 J	mg/L
OR02	Compliance	R6	04/16/2024	Lead, total	0.00180	mg/L
OR02	Compliance	R6	04/16/2024	Lithium, total	0.0068 J	mg/L
OR02	Compliance	R6	04/16/2024	Mercury, total	0.00014 U	mg/L
OR02	Compliance	R6	04/16/2024	Molybdenum, total	0.00250	mg/L
OR02	Compliance	R6	04/16/2024	Oxidation Reduction Potential	-6.20	mV
OR02	Compliance	R6	04/16/2024	pH (field)	6.6	SU
OR02	Compliance	R6	04/16/2024	Radium 226 + Radium 228, total	0.582	pCi/L
OR02	Compliance	R6	04/16/2024	Selenium, total	0.00074 U	mg/L
OR02	Compliance	R6	04/16/2024	Specific Conductance @ 25C (field)	1,845	micromhos/cm
OR02	Compliance	R6	04/16/2024	Sulfate, total	27.0	mg/L
OR02	Compliance	R6	04/16/2024	Temperature (Celsius)	17.4	degrees C
OR02	Compliance	R6	04/16/2024	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R6	04/16/2024	Total Dissolved Solids	1,100	mg/L
OR02	Compliance	R6	04/16/2024	Turbidity, field	139	NTU
OR03D	Compliance	R6	04/17/2024	Antimony, total	0.00043 U	mg/L
OR03D	Compliance	R6	04/17/2024	Arsenic, total	0.00720	mg/L
OR03D	Compliance	R6	04/17/2024	Barium, total	0.250	mg/L
OR03D	Compliance	R6	04/17/2024	Beryllium, total	0.00120	mg/L
OR03D	Compliance	R6	04/17/2024	Boron, total	51.0	mg/L
OR03D	Compliance	R6	04/17/2024	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R6	04/17/2024	Calcium, total	610	mg/L
OR03D	Compliance	R6	04/17/2024	Chloride, total	1,300	mg/L
OR03D	Compliance	R6	04/17/2024	Chromium, total	0.0380	mg/L
OR03D	Compliance	R6	04/17/2024	Cobalt, total	0.0200	mg/L
OR03D	Compliance	R6	04/17/2024	Dissolved Oxygen	0.530	mg/L
OR03D	Compliance	R6	04/17/2024	Fluoride, total	0.25 UJ	mg/L
OR03D	Compliance	R6	04/17/2024	Lead, total	0.0220	mg/L
OR03D	Compliance	R6	04/17/2024	Lithium, total	0.0850	mg/L
OR03D	Compliance	R6	04/17/2024	Mercury, total	0.00017 J	mg/L
OR03D	Compliance	R6	04/17/2024	Molybdenum, total	0.00450	mg/L
OR03D	Compliance	R6	04/17/2024	Oxidation Reduction Potential	-20.1	mV
OR03D	Compliance	R6	04/17/2024	pH (field)	6.5	SU
OR03D	Compliance	R6	04/17/2024	Radium 226 + Radium 228, total	2.78	pCi/L
OR03D	Compliance	R6	04/17/2024	Selenium, total	0.00130	mg/L
OR03D	Compliance	R6	04/17/2024	Specific Conductance @ 25C (field)	5,100	micromhos/cm
OR03D	Compliance	R6	04/17/2024	Sulfate, total	670	mg/L
OR03D	Compliance	R6	04/17/2024	Temperature (Celsius)	19.0	degrees C
OR03D	Compliance	R6	04/17/2024	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R6	04/30/2024	Total Dissolved Solids	4,300	mg/L
OR03D	Compliance	R6	04/17/2024	Turbidity, field	3,520	NTU
OR04D	Compliance	R6	04/17/2024	Antimony, total	0.00086 J	mg/L
OR04D	Compliance	R6	04/17/2024	Arsenic, total	0.00970	mg/L
OR04D	Compliance	R6	04/17/2024	Barium, total	0.170	mg/L
OR04D	Compliance	R6	04/17/2024	Beryllium, total	0.00059 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R6	04/17/2024	Boron, total	61.0	mg/L
OR04D	Compliance	R6	04/17/2024	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R6	04/17/2024	Calcium, total	620	mg/L
OR04D	Compliance	R6	04/17/2024	Chloride, total	560	mg/L
OR04D	Compliance	R6	04/17/2024	Chromium, total	0.0450	mg/L
OR04D	Compliance	R6	04/17/2024	Cobalt, total	0.0110	mg/L
OR04D	Compliance	R6	04/17/2024	Dissolved Oxygen	3.60	mg/L
OR04D	Compliance	R6	04/17/2024	Fluoride, total	0.25 UJ	mg/L
OR04D	Compliance	R6	04/17/2024	Lead, total	0.0190	mg/L
OR04D	Compliance	R6	04/17/2024	Lithium, total	0.0870	mg/L
OR04D	Compliance	R6	04/17/2024	Mercury, total	0.00014 U	mg/L
OR04D	Compliance	R6	04/17/2024	Molybdenum, total	0.00800	mg/L
OR04D	Compliance	R6	04/17/2024	Oxidation Reduction Potential	-23.6	mV
OR04D	Compliance	R6	04/17/2024	pH (field)	6.4	SU
OR04D	Compliance	R6	04/17/2024	Radium 226 + Radium 228, total	0.849	pCi/L
OR04D	Compliance	R6	04/17/2024	Selenium, total	0.00140	mg/L
OR04D	Compliance	R6	04/17/2024	Specific Conductance @ 25C (field)	5,004	micromhos/cm
OR04D	Compliance	R6	04/17/2024	Sulfate, total	1,100	mg/L
OR04D	Compliance	R6	04/17/2024	Temperature (Celsius)	21.8	degrees C
OR04D	Compliance	R6	04/17/2024	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R6	04/17/2024	Total Dissolved Solids	3,500	mg/L
OR04D	Compliance	R6	04/17/2024	Turbidity, field	474	NTU
OR06A	Compliance	R6	04/16/2024	Antimony, total	0.00052 J	mg/L
OR06A	Compliance	R6	04/16/2024	Arsenic, total	0.0250	mg/L
OR06A	Compliance	R6	04/16/2024	Barium, total	0.140	mg/L
OR06A	Compliance	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
OR06A	Compliance	R6	04/16/2024	Boron, total	48.0	mg/L
OR06A	Compliance	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R6	04/16/2024	Calcium, total	500	mg/L
OR06A	Compliance	R6	04/16/2024	Chloride, total	520	mg/L
OR06A	Compliance	R6	04/16/2024	Chromium, total	0.0280	mg/L
OR06A	Compliance	R6	04/16/2024	Cobalt, total	0.0100	mg/L
OR06A	Compliance	R6	04/16/2024	Dissolved Oxygen	0.580	mg/L
OR06A	Compliance	R6	04/16/2024	Fluoride, total	0.178 J	mg/L
OR06A	Compliance	R6	04/16/2024	Lead, total	0.0170	mg/L
OR06A	Compliance	R6	04/16/2024	Lithium, total	0.0210	mg/L
OR06A	Compliance	R6	04/16/2024	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R6	04/16/2024	Molybdenum, total	0.0580	mg/L
OR06A	Compliance	R6	04/16/2024	Oxidation Reduction Potential	-36.2	mV
OR06A	Compliance	R6	04/16/2024	pH (field)	6.6	SU
OR06A	Compliance	R6	04/16/2024	Radium 226 + Radium 228, total	0.845	pCi/L
OR06A	Compliance	R6	04/16/2024	Selenium, total	0.00094 J	mg/L
OR06A	Compliance	R6	04/16/2024	Specific Conductance @ 25C (field)	3,178	micromhos/cm
OR06A	Compliance	R6	04/16/2024	Sulfate, total	640	mg/L
OR06A	Compliance	R6	04/16/2024	Temperature (Celsius)	17.8	degrees C
OR06A	Compliance	R6	04/16/2024	Thallium, total	0.00038 U	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R6	04/16/2024	Total Dissolved Solids	2,300	mg/L
OR06A	Compliance	R6	04/16/2024	Turbidity, field	83.4	NTU
OR11	Compliance	R6	04/15/2024	Antimony, total	0.00043 U	mg/L
OR11	Compliance	R6	04/15/2024	Arsenic, total	0.00210	mg/L
OR11	Compliance	R6	04/15/2024	Barium, total	0.0370	mg/L
OR11	Compliance	R6	04/15/2024	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R6	04/15/2024	Boron, total	8.00	mg/L
OR11	Compliance	R6	04/15/2024	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R6	04/15/2024	Calcium, total	140	mg/L
OR11	Compliance	R6	04/15/2024	Chloride, total	78.0	mg/L
OR11	Compliance	R6	04/15/2024	Chromium, total	0.0028 U	mg/L
OR11	Compliance	R6	04/15/2024	Cobalt, total	0.00048 U	mg/L
OR11	Compliance	R6	04/15/2024	Dissolved Oxygen	0.650	mg/L
OR11	Compliance	R6	04/15/2024	Fluoride, total	0.262	mg/L
OR11	Compliance	R6	04/15/2024	Lead, total	0.00022 U	mg/L
OR11	Compliance	R6	04/15/2024	Lithium, total	0.014 J	mg/L
OR11	Compliance	R6	04/15/2024	Mercury, total	0.00014 U	mg/L
OR11	Compliance	R6	04/15/2024	Molybdenum, total	0.00720 J	mg/L
OR11	Compliance	R6	04/15/2024	Oxidation Reduction Potential	-50.2	mV
OR11	Compliance	R6	04/15/2024	pH (field)	6.8	SU
OR11	Compliance	R6	04/15/2024	Radium 226 + Radium 228, total	1.26	pCi/L
OR11	Compliance	R6	04/15/2024	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R6	04/15/2024	Specific Conductance @ 25C (field)	1,173	micromhos/cm
OR11	Compliance	R6	04/15/2024	Sulfate, total	160	mg/L
OR11	Compliance	R6	04/15/2024	Temperature (Celsius)	17.9	degrees C
OR11	Compliance	R6	04/15/2024	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R6	04/15/2024	Total Dissolved Solids	650	mg/L
OR11	Compliance	R6	04/15/2024	Turbidity, field	9.96	NTU
OR13S	Compliance	R6	04/18/2024	Antimony, total	0.00043 U	mg/L
OR13S	Compliance	R6	04/18/2024	Arsenic, total	0.00610	mg/L
OR13S	Compliance	R6	04/18/2024	Barium, total	0.0250	mg/L
OR13S	Compliance	R6	04/18/2024	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R6	04/18/2024	Boron, total	2.00	mg/L
OR13S	Compliance	R6	04/18/2024	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R6	04/18/2024	Calcium, total	310	mg/L
OR13S	Compliance	R6	04/18/2024	Chloride, total	33.0	mg/L
OR13S	Compliance	R6	04/18/2024	Chromium, total	0.0028 U	mg/L
OR13S	Compliance	R6	04/18/2024	Cobalt, total	0.00240	mg/L
OR13S	Compliance	R6	04/18/2024	Dissolved Oxygen	0.720	mg/L
OR13S	Compliance	R6	04/18/2024	Fluoride, total	0.286	mg/L
OR13S	Compliance	R6	04/18/2024	Lead, total	0.00022 U	mg/L
OR13S	Compliance	R6	04/18/2024	Lithium, total	0.013 J	mg/L
OR13S	Compliance	R6	04/18/2024	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R6	04/18/2024	Molybdenum, total	0.00650	mg/L
OR13S	Compliance	R6	04/18/2024	Oxidation Reduction Potential	-31.0	mV
OR13S	Compliance	R6	04/18/2024	pH (field)	6.7	SU

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R6	04/18/2024	Radium 226 + Radium 228, total	0.461	pCi/L
OR13S	Compliance	R6	04/18/2024	Selenium, total	0.00074 U	mg/L
OR13S	Compliance	R6	04/18/2024	Specific Conductance @ 25C (field)	2,003	micromhos/cm
OR13S	Compliance	R6	04/18/2024	Sulfate, total	860	mg/L
OR13S	Compliance	R6	04/18/2024	Temperature (Celsius)	15.8	degrees C
OR13S	Compliance	R6	04/18/2024	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R6	04/18/2024	Total Dissolved Solids	1,600	mg/L
OR13S	Compliance	R6	04/18/2024	Turbidity, field	13.2	NTU
OR13D	Compliance	R6	04/18/2024	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R6	04/18/2024	Arsenic, total	0.00400	mg/L
OR13D	Compliance	R6	04/18/2024	Barium, total	0.0310	mg/L
OR13D	Compliance	R6	04/18/2024	Beryllium, total	0.00059 U	mg/L
OR13D	Compliance	R6	04/18/2024	Boron, total	1.70	mg/L
OR13D	Compliance	R6	04/18/2024	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R6	04/18/2024	Calcium, total	120	mg/L
OR13D	Compliance	R6	04/18/2024	Chloride, total	46.0	mg/L
OR13D	Compliance	R6	04/18/2024	Chromium, total	0.0028 U	mg/L
OR13D	Compliance	R6	04/18/2024	Cobalt, total	0.00048 U	mg/L
OR13D	Compliance	R6	04/18/2024	Dissolved Oxygen	0.530	mg/L
OR13D	Compliance	R6	04/18/2024	Fluoride, total	0.278	mg/L
OR13D	Compliance	R6	04/18/2024	Lead, total	0.00022 U	mg/L
OR13D	Compliance	R6	04/18/2024	Lithium, total	0.0270	mg/L
OR13D	Compliance	R6	04/18/2024	Mercury, total	0.00014 U	mg/L
OR13D	Compliance	R6	04/18/2024	Molybdenum, total	0.00760	mg/L
OR13D	Compliance	R6	04/18/2024	Oxidation Reduction Potential	-17.4	mV
OR13D	Compliance	R6	04/18/2024	pH (field)	6.8	SU
OR13D	Compliance	R6	04/18/2024	Radium 226 + Radium 228, total	0.480	pCi/L
OR13D	Compliance	R6	04/18/2024	Selenium, total	0.00074 U	mg/L
OR13D	Compliance	R6	04/18/2024	Specific Conductance @ 25C (field)	1,706	micromhos/cm
OR13D	Compliance	R6	04/18/2024	Sulfate, total	270	mg/L
OR13D	Compliance	R6	04/18/2024	Temperature (Celsius)	16.8	degrees C
OR13D	Compliance	R6	04/18/2024	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R6	04/18/2024	Total Dissolved Solids	1,100	mg/L
OR13D	Compliance	R6	04/18/2024	Turbidity, field	28.7	NTU
OR14D	Compliance	R6	04/16/2024	Antimony, total	0.00043 U	mg/L
OR14D	Compliance	R6	04/16/2024	Arsenic, total	0.00120	mg/L
OR14D	Compliance	R6	04/16/2024	Barium, total	0.0230	mg/L
OR14D	Compliance	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
OR14D	Compliance	R6	04/16/2024	Boron, total	21.0	mg/L
OR14D	Compliance	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
OR14D	Compliance	R6	04/16/2024	Calcium, total	450	mg/L
OR14D	Compliance	R6	04/16/2024	Chloride, total	320	mg/L
OR14D	Compliance	R6	04/16/2024	Chromium, total	0.0028 U	mg/L
OR14D	Compliance	R6	04/16/2024	Cobalt, total	0.00064 J	mg/L
OR14D	Compliance	R6	04/16/2024	Dissolved Oxygen	0.430	mg/L
OR14D	Compliance	R6	04/16/2024	Fluoride, total	0.262	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R6	04/16/2024	Lead, total	0.00023 J	mg/L
OR14D	Compliance	R6	04/16/2024	Lithium, total	0.0210	mg/L
OR14D	Compliance	R6	04/16/2024	Mercury, total	0.00014 U	mg/L
OR14D	Compliance	R6	04/16/2024	Molybdenum, total	0.00540	mg/L
OR14D	Compliance	R6	04/16/2024	Oxidation Reduction Potential	-1.50	mV
OR14D	Compliance	R6	04/16/2024	pH (field)	6.5	SU
OR14D	Compliance	R6	04/16/2024	Radium 226 + Radium 228, total	0.639	pCi/L
OR14D	Compliance	R6	04/16/2024	Selenium, total	0.00074 U	mg/L
OR14D	Compliance	R6	04/16/2024	Specific Conductance @ 25C (field)	2,817	micromhos/cm
OR14D	Compliance	R6	04/16/2024	Sulfate, total	810	mg/L
OR14D	Compliance	R6	04/16/2024	Temperature (Celsius)	18.6	degrees C
OR14D	Compliance	R6	04/16/2024	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R6	04/16/2024	Total Dissolved Solids	2,100	mg/L
OR14D	Compliance	R6	04/16/2024	Turbidity, field	8.05	NTU
OR19	Compliance	R6	04/16/2024	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R6	04/16/2024	Arsenic, total	0.00069 U	mg/L
OR19	Compliance	R6	04/16/2024	Barium, total	0.0130	mg/L
OR19	Compliance	R6	04/16/2024	Beryllium, total	0.00059 U	mg/L
OR19	Compliance	R6	04/16/2024	Boron, total	15.0	mg/L
OR19	Compliance	R6	04/16/2024	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R6	04/16/2024	Calcium, total	300	mg/L
OR19	Compliance	R6	04/16/2024	Chloride, total	150	mg/L
OR19	Compliance	R6	04/16/2024	Chromium, total	0.0028 U	mg/L
OR19	Compliance	R6	04/16/2024	Cobalt, total	0.00048 U	mg/L
OR19	Compliance	R6	04/16/2024	Dissolved Oxygen	0.520	mg/L
OR19	Compliance	R6	04/16/2024	Fluoride, total	0.310	mg/L
OR19	Compliance	R6	04/16/2024	Lead, total	0.00022 U	mg/L
OR19	Compliance	R6	04/16/2024	Lithium, total	0.0210	mg/L
OR19	Compliance	R6	04/16/2024	Mercury, total	0.00014 U	mg/L
OR19	Compliance	R6	04/16/2024	Molybdenum, total	0.00360	mg/L
OR19	Compliance	R6	04/16/2024	Oxidation Reduction Potential	-22.1	mV
OR19	Compliance	R6	04/16/2024	pH (field)	6.6	SU
OR19	Compliance	R6	04/16/2024	Radium 226 + Radium 228, total	0.629	pCi/L
OR19	Compliance	R6	04/16/2024	Selenium, total	0.00074 U	mg/L
OR19	Compliance	R6	04/16/2024	Specific Conductance @ 25C (field)	2,605	micromhos/cm
OR19	Compliance	R6	04/16/2024	Sulfate, total	780	mg/L
OR19	Compliance	R6	04/16/2024	Temperature (Celsius)	18.4	degrees C
OR19	Compliance	R6	04/16/2024	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R6	04/16/2024	Total Dissolved Solids	2,000	mg/L
OR19	Compliance	R6	04/16/2024	Turbidity, field	9.50	NTU
OR20	Compliance	R6	04/15/2024	Antimony, total	0.00043 U	mg/L
OR20	Compliance	R6	04/15/2024	Arsenic, total	0.00310	mg/L
OR20	Compliance	R6	04/15/2024	Barium, total	0.0210	mg/L
OR20	Compliance	R6	04/15/2024	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R6	04/15/2024	Boron, total	33.0	mg/L
OR20	Compliance	R6	04/15/2024	Cadmium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R6	04/15/2024	Calcium, total	250	mg/L
OR20	Compliance	R6	04/15/2024	Chloride, total	370	mg/L
OR20	Compliance	R6	04/15/2024	Chromium, total	0.0028 U	mg/L
OR20	Compliance	R6	04/15/2024	Cobalt, total	0.00086 J	mg/L
OR20	Compliance	R6	04/15/2024	Dissolved Oxygen	0.430	mg/L
OR20	Compliance	R6	04/15/2024	Fluoride, total	0.457	mg/L
OR20	Compliance	R6	04/15/2024	Lead, total	0.00022 U	mg/L
OR20	Compliance	R6	04/15/2024	Lithium, total	0.0460	mg/L
OR20	Compliance	R6	04/15/2024	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R6	04/15/2024	Molybdenum, total	0.0410	mg/L
OR20	Compliance	R6	04/15/2024	Oxidation Reduction Potential	-47.3	mV
OR20	Compliance	R6	04/15/2024	pH (field)	6.7	SU
OR20	Compliance	R6	04/15/2024	Radium 226 + Radium 228, total	1.57	pCi/L
OR20	Compliance	R6	04/15/2024	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R6	04/15/2024	Specific Conductance @ 25C (field)	2,360	micromhos/cm
OR20	Compliance	R6	04/15/2024	Sulfate, total	430	mg/L
OR20	Compliance	R6	04/15/2024	Temperature (Celsius)	19.6	degrees C
OR20	Compliance	R6	04/15/2024	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R6	04/15/2024	Total Dissolved Solids	1,600	mg/L
OR20	Compliance	R6	04/15/2024	Turbidity, field	8.86	NTU

Notes:
C = Celsius
cm = centimeter
Event IDs:
R6 = sixth round of sampling to establish background
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
Result Code (if applicable):
Result qualifiers as defined in the United States Environmental Protection Agency's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA 542-R-20-006. November 2020.:
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
SU = Standard Units

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2024
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R7	07/25/2024	Antimony, total	0.00043 U	mg/L
BA06	Background	R7	07/25/2024	Arsenic, total	0.00170	mg/L
BA06	Background	R7	07/25/2024	Barium, total	0.0990	mg/L
BA06	Background	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
BA06	Background	R7	07/25/2024	Boron, total	15.0	mg/L
BA06	Background	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
BA06	Background	R7	07/25/2024	Calcium, total	310	mg/L
BA06	Background	R7	07/25/2024	Chloride, total	590	mg/L
BA06	Background	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
BA06	Background	R7	07/25/2024	Cobalt, total	0.00380	mg/L
BA06	Background	R7	07/25/2024	Dissolved Oxygen	0	mg/L
BA06	Background	R7	07/25/2024	Fluoride, total	0.274 J+	mg/L
BA06	Background	R7	07/25/2024	Lead, total	0.00034 J	mg/L
BA06	Background	R7	07/25/2024	Lithium, total	0.0054 J	mg/L
BA06	Background	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
BA06	Background	R7	07/25/2024	Molybdenum, total	0.00110	mg/L
BA06	Background	R7	07/25/2024	Oxidation Reduction Potential	-48.0	mV
BA06	Background	R7	07/25/2024	pH (field)	7.7	SU
BA06	Background	R7	07/25/2024	Radium 226 + Radium 228, total	0.653	pCi/L
BA06	Background	R7	07/25/2024	Selenium, total	0.00074 U	mg/L
BA06	Background	R7	07/25/2024	Specific Conductance @ 25C (field)	2,061	micromhos/cm
BA06	Background	R7	07/25/2024	Sulfate, total	390	mg/L
BA06	Background	R7	07/25/2024	Temperature (Celsius)	16.2	degrees C
BA06	Background	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
BA06	Background	R7	07/25/2024	Total Dissolved Solids	1,900	mg/L
BA06	Background	R7	07/25/2024	Turbidity, field	91.8	NTU
OM16	Background	R7	07/25/2024	Antimony, total	0.00043 U	mg/L
OM16	Background	R7	07/25/2024	Arsenic, total	0.00069 U	mg/L
OM16	Background	R7	07/25/2024	Barium, total	0.0150	mg/L
OM16	Background	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
OM16	Background	R7	07/25/2024	Boron, total	0.0810	mg/L
OM16	Background	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
OM16	Background	R7	07/25/2024	Calcium, total	590	mg/L
OM16	Background	R7	07/25/2024	Chloride, total	7.10	mg/L
OM16	Background	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
OM16	Background	R7	07/25/2024	Cobalt, total	0.00200	mg/L
OM16	Background	R7	07/25/2024	Dissolved Oxygen	0.640	mg/L
OM16	Background	R7	07/25/2024	Fluoride, total	0.25 UJ	mg/L
OM16	Background	R7	07/25/2024	Lead, total	0.00022 U	mg/L
OM16	Background	R7	07/25/2024	Lithium, total	0.0360	mg/L
OM16	Background	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
OM16	Background	R7	07/25/2024	Molybdenum, total	0.00074 U	mg/L
OM16	Background	R7	07/25/2024	Oxidation Reduction Potential	96.0	mV
OM16	Background	R7	07/25/2024	pH (field)	6.2	SU
OM16	Background	R7	07/25/2024	Radium 226 + Radium 228, total	0.706	pCi/L
OM16	Background	R7	07/25/2024	Selenium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R7	07/25/2024	Specific Conductance @ 25C (field)	4,200	micromhos/cm
OM16	Background	R7	07/25/2024	Sulfate, total	2,200	mg/L
OM16	Background	R7	07/25/2024	Temperature (Celsius)	17.2	degrees C
OM16	Background	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
OM16	Background	R7	07/25/2024	Total Dissolved Solids	4,100	mg/L
OM16	Background	R7	07/25/2024	Turbidity, field	15.2	NTU
OM17	Background	R7	07/25/2024	Antimony, total	0.00043 U	mg/L
OM17	Background	R7	07/25/2024	Arsenic, total	0.00500	mg/L
OM17	Background	R7	07/25/2024	Barium, total	0.0570	mg/L
OM17	Background	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
OM17	Background	R7	07/25/2024	Boron, total	0.150	mg/L
OM17	Background	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
OM17	Background	R7	07/25/2024	Calcium, total	66.0	mg/L
OM17	Background	R7	07/25/2024	Chloride, total	1.60	mg/L
OM17	Background	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
OM17	Background	R7	07/25/2024	Cobalt, total	0.00350	mg/L
OM17	Background	R7	07/25/2024	Dissolved Oxygen	1.40	mg/L
OM17	Background	R7	07/25/2024	Fluoride, total	0.112 J	mg/L
OM17	Background	R7	07/25/2024	Lead, total	0.00120	mg/L
OM17	Background	R7	07/25/2024	Lithium, total	0.0067 J	mg/L
OM17	Background	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
OM17	Background	R7	07/25/2024	Molybdenum, total	0.00110	mg/L
OM17	Background	R7	07/25/2024	Oxidation Reduction Potential	-18.0	mV
OM17	Background	R7	07/25/2024	pH (field)	6.3	SU
OM17	Background	R7	07/25/2024	Radium 226 + Radium 228, total	1.20	pCi/L
OM17	Background	R7	07/25/2024	Selenium, total	0.00074 U	mg/L
OM17	Background	R7	07/25/2024	Specific Conductance @ 25C (field)	415	micromhos/cm
OM17	Background	R7	07/25/2024	Sulfate, total	33.0	mg/L
OM17	Background	R7	07/25/2024	Temperature (Celsius)	18.7	degrees C
OM17	Background	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
OM17	Background	R7	07/25/2024	Total Dissolved Solids	360	mg/L
OM17	Background	R7	07/25/2024	Turbidity, field	362	NTU
OM01	Compliance	R7	07/25/2024	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R7	07/25/2024	Arsenic, total	0.00069 U	mg/L
OM01	Compliance	R7	07/25/2024	Barium, total	0.0150	mg/L
OM01	Compliance	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R7	07/25/2024	Boron, total	0.210	mg/L
OM01	Compliance	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R7	07/25/2024	Calcium, total	560	mg/L
OM01	Compliance	R7	07/25/2024	Chloride, total	35.0	mg/L
OM01	Compliance	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R7	07/25/2024	Cobalt, total	0.0150	mg/L
OM01	Compliance	R7	07/25/2024	Dissolved Oxygen	1.00	mg/L
OM01	Compliance	R7	07/25/2024	Fluoride, total	0.25 UJ	mg/L
OM01	Compliance	R7	07/25/2024	Lead, total	0.00023 J	mg/L
OM01	Compliance	R7	07/25/2024	Lithium, total	0.005 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
OM01	Compliance	R7	07/25/2024	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R7	07/25/2024	Oxidation Reduction Potential	37.0	mV
OM01	Compliance	R7	07/25/2024	pH (field)	6.3	SU
OM01	Compliance	R7	07/25/2024	Radium 226 + Radium 228, total	1.16	pCi/L
OM01	Compliance	R7	07/25/2024	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R7	07/25/2024	Specific Conductance @ 25C (field)	3,210	micromhos/cm
OM01	Compliance	R7	07/25/2024	Sulfate, total	1,900	mg/L
OM01	Compliance	R7	07/25/2024	Temperature (Celsius)	21.8	degrees C
OM01	Compliance	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R7	07/25/2024	Total Dissolved Solids	3,200	mg/L
OM01	Compliance	R7	07/25/2024	Turbidity, field	305	NTU
OM04S	Compliance	R7	07/29/2024	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R7	07/29/2024	Arsenic, total	0.00069 U	mg/L
OM04S	Compliance	R7	07/29/2024	Barium, total	0.0510	mg/L
OM04S	Compliance	R7	07/29/2024	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R7	07/29/2024	Boron, total	0.0690	mg/L
OM04S	Compliance	R7	07/29/2024	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R7	07/29/2024	Calcium, total	150	mg/L
OM04S	Compliance	R7	07/29/2024	Chloride, total	17.0	mg/L
OM04S	Compliance	R7	07/29/2024	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R7	07/29/2024	Cobalt, total	0.00980	mg/L
OM04S	Compliance	R7	07/29/2024	Dissolved Oxygen	0.640	mg/L
OM04S	Compliance	R7	07/29/2024	Fluoride, total	0.239 J	mg/L
OM04S	Compliance	R7	07/29/2024	Lead, total	0.00022 U	mg/L
OM04S	Compliance	R7	07/29/2024	Lithium, total	0.005 U	mg/L
OM04S	Compliance	R7	07/29/2024	Mercury, total	0.00014 U	mg/L
OM04S	Compliance	R7	07/29/2024	Molybdenum, total	0.00110	mg/L
OM04S	Compliance	R7	07/29/2024	Oxidation Reduction Potential	3.00	mV
OM04S	Compliance	R7	07/29/2024	pH (field)	6.5	SU
OM04S	Compliance	R7	07/29/2024	Radium 226 + Radium 228, total	0.292	pCi/L
OM04S	Compliance	R7	07/29/2024	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R7	07/29/2024	Specific Conductance @ 25C (field)	1,170	micromhos/cm
OM04S	Compliance	R7	07/29/2024	Sulfate, total	140	mg/L
OM04S	Compliance	R7	07/29/2024	Temperature (Celsius)	23.7	degrees C
OM04S	Compliance	R7	07/29/2024	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R7	07/29/2024	Total Dissolved Solids	730	mg/L
OM04S	Compliance	R7	07/29/2024	Turbidity, field	48.7	NTU
OM07	Compliance	R7	07/24/2024	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R7	07/24/2024	Arsenic, total	0.00069 U	mg/L
OM07	Compliance	R7	07/24/2024	Barium, total	0.0510	mg/L
OM07	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R7	07/24/2024	Boron, total	0.450	mg/L
OM07	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R7	07/24/2024	Calcium, total	140	mg/L
OM07	Compliance	R7	07/24/2024	Chloride, total	10.0	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R7	07/24/2024	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R7	07/24/2024	Cobalt, total	0.0019 J	mg/L
OM07	Compliance	R7	07/24/2024	Dissolved Oxygen	0.930	mg/L
OM07	Compliance	R7	07/24/2024	Fluoride, total	0.232 J	mg/L
OM07	Compliance	R7	07/24/2024	Lead, total	0.00022 U	mg/L
OM07	Compliance	R7	07/24/2024	Lithium, total	0.005 U	mg/L
OM07	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R7	07/24/2024	Molybdenum, total	0.00110	mg/L
OM07	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-49.0	mV
OM07	Compliance	R7	07/24/2024	pH (field)	7.0	SU
OM07	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	2.41	pCi/L
OM07	Compliance	R7	07/24/2024	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	1,530	micromhos/cm
OM07	Compliance	R7	07/24/2024	Sulfate, total	210	mg/L
OM07	Compliance	R7	07/24/2024	Temperature (Celsius)	16.6	degrees C
OM07	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R7	07/24/2024	Total Dissolved Solids	800	mg/L
OM07	Compliance	R7	07/24/2024	Turbidity, field	0 U	NTU
OM12	Compliance	R7	07/25/2024	Antimony, total	0.00043 U	mg/L
OM12	Compliance	R7	07/25/2024	Arsenic, total	0.0230	mg/L
OM12	Compliance	R7	07/25/2024	Barium, total	0.220	mg/L
OM12	Compliance	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R7	07/25/2024	Boron, total	0.0500	mg/L
OM12	Compliance	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R7	07/25/2024	Calcium, total	290	mg/L
OM12	Compliance	R7	07/25/2024	Chloride, total	3.60	mg/L
OM12	Compliance	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
OM12	Compliance	R7	07/25/2024	Cobalt, total	0.0014 J	mg/L
OM12	Compliance	R7	07/25/2024	Dissolved Oxygen	0.890	mg/L
OM12	Compliance	R7	07/25/2024	Fluoride, total	0.25 UJ	mg/L
OM12	Compliance	R7	07/25/2024	Lead, total	0.00022 U	mg/L
OM12	Compliance	R7	07/25/2024	Lithium, total	0.005 U	mg/L
OM12	Compliance	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
OM12	Compliance	R7	07/25/2024	Molybdenum, total	0.00230	mg/L
OM12	Compliance	R7	07/25/2024	Oxidation Reduction Potential	196	mV
OM12	Compliance	R7	07/25/2024	pH (field)	7.2	SU
OM12	Compliance	R7	07/25/2024	Radium 226 + Radium 228, total	1.15	pCi/L
OM12	Compliance	R7	07/25/2024	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R7	07/25/2024	Specific Conductance @ 25C (field)	2,270	micromhos/cm
OM12	Compliance	R7	07/25/2024	Sulfate, total	460	mg/L
OM12	Compliance	R7	07/25/2024	Temperature (Celsius)	18.0	degrees C
OM12	Compliance	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R7	07/25/2024	Total Dissolved Solids	1,500	mg/L
OM12	Compliance	R7	07/25/2024	Turbidity, field	0 U	NTU
OM21	Compliance	R7	07/25/2024	Antimony, total	0.00510	mg/L
OM21	Compliance	R7	07/25/2024	Arsenic, total	0.00069 U	mg/L

TABLE 1.
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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R7	07/25/2024	Barium, total	0.0180	mg/L
OM21	Compliance	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R7	07/25/2024	Boron, total	8.10	mg/L
OM21	Compliance	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R7	07/25/2024	Calcium, total	300	mg/L
OM21	Compliance	R7	07/25/2024	Chloride, total	230	mg/L
OM21	Compliance	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
OM21	Compliance	R7	07/25/2024	Cobalt, total	0.00048 U	mg/L
OM21	Compliance	R7	07/25/2024	Dissolved Oxygen	1.20	mg/L
OM21	Compliance	R7	07/25/2024	Fluoride, total	0.25 UJ	mg/L
OM21	Compliance	R7	07/25/2024	Lead, total	0.00022 U	mg/L
OM21	Compliance	R7	07/25/2024	Lithium, total	0.0400	mg/L
OM21	Compliance	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
OM21	Compliance	R7	07/25/2024	Molybdenum, total	0.00180	mg/L
OM21	Compliance	R7	07/25/2024	Oxidation Reduction Potential	120	mV
OM21	Compliance	R7	07/25/2024	pH (field)	7.2	SU
OM21	Compliance	R7	07/25/2024	Radium 226 + Radium 228, total	0.377	pCi/L
OM21	Compliance	R7	07/25/2024	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R7	07/25/2024	Specific Conductance @ 25C (field)	3,960	micromhos/cm
OM21	Compliance	R7	07/25/2024	Sulfate, total	1,000	mg/L
OM21	Compliance	R7	07/25/2024	Temperature (Celsius)	18.2	degrees C
OM21	Compliance	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R7	07/25/2024	Total Dissolved Solids	2,400	mg/L
OM21	Compliance	R7	07/25/2024	Turbidity, field	0 U	NTU
OM22D	Compliance	R7	07/24/2024	Antimony, total	0.00058 J	mg/L
OM22D	Compliance	R7	07/24/2024	Arsenic, total	0.0110	mg/L
OM22D	Compliance	R7	07/24/2024	Barium, total	0.220	mg/L
OM22D	Compliance	R7	07/24/2024	Beryllium, total	0.00110	mg/L
OM22D	Compliance	R7	07/24/2024	Boron, total	56.0	mg/L
OM22D	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R7	07/24/2024	Calcium, total	620	mg/L
OM22D	Compliance	R7	07/24/2024	Chloride, total	1,000	mg/L
OM22D	Compliance	R7	07/24/2024	Chromium, total	0.0430	mg/L
OM22D	Compliance	R7	07/24/2024	Cobalt, total	0.0210	mg/L
OM22D	Compliance	R7	07/24/2024	Dissolved Oxygen	0.980	mg/L
OM22D	Compliance	R7	07/24/2024	Fluoride, total	0.25 UJ	mg/L
OM22D	Compliance	R7	07/24/2024	Lead, total	0.0150	mg/L
OM22D	Compliance	R7	07/24/2024	Lithium, total	0.0720	mg/L
OM22D	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R7	07/24/2024	Molybdenum, total	0.140	mg/L
OM22D	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-32.0	mV
OM22D	Compliance	R7	07/24/2024	pH (field)	6.3	SU
OM22D	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	0.745	pCi/L
OM22D	Compliance	R7	07/24/2024	Selenium, total	0.00130	mg/L
OM22D	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	4,530	micromhos/cm
OM22D	Compliance	R7	07/24/2024	Sulfate, total	790	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM22D	Compliance	R7	07/24/2024	Temperature (Celsius)	24.5	degrees C
OM22D	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R7	07/24/2024	Total Dissolved Solids	4,100	mg/L
OM22D	Compliance	R7	07/24/2024	Turbidity, field	120	NTU
OM23D	Compliance	R7	07/24/2024	Antimony, total	0.00043 U	mg/L
OM23D	Compliance	R7	07/24/2024	Arsenic, total	0.00130	mg/L
OM23D	Compliance	R7	07/24/2024	Barium, total	0.0280	mg/L
OM23D	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R7	07/24/2024	Boron, total	1.90	mg/L
OM23D	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R7	07/24/2024	Calcium, total	160	mg/L
OM23D	Compliance	R7	07/24/2024	Chloride, total	27.0	mg/L
OM23D	Compliance	R7	07/24/2024	Chromium, total	0.0028 U	mg/L
OM23D	Compliance	R7	07/24/2024	Cobalt, total	0.00052 J	mg/L
OM23D	Compliance	R7	07/24/2024	Dissolved Oxygen	0.370	mg/L
OM23D	Compliance	R7	07/24/2024	Fluoride, total	0.25 UJ	mg/L
OM23D	Compliance	R7	07/24/2024	Lead, total	0.00056 J	mg/L
OM23D	Compliance	R7	07/24/2024	Lithium, total	0.0330	mg/L
OM23D	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R7	07/24/2024	Molybdenum, total	0.00270	mg/L
OM23D	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-57.0	mV
OM23D	Compliance	R7	07/24/2024	pH (field)	6.5	SU
OM23D	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	1.06	pCi/L
OM23D	Compliance	R7	07/24/2024	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	1,410	micromhos/cm
OM23D	Compliance	R7	07/24/2024	Sulfate, total	370	mg/L
OM23D	Compliance	R7	07/24/2024	Temperature (Celsius)	27.4	degrees C
OM23D	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R7	07/24/2024	Total Dissolved Solids	1,200	mg/L
OM23D	Compliance	R7	07/24/2024	Turbidity, field	438	NTU
OM24D	Compliance	R7	07/23/2024	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R7	07/23/2024	Arsenic, total	0.00310	mg/L
OM24D	Compliance	R7	07/23/2024	Barium, total	0.0140	mg/L
OM24D	Compliance	R7	07/23/2024	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R7	07/23/2024	Boron, total	19.0	mg/L
OM24D	Compliance	R7	07/23/2024	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R7	07/23/2024	Calcium, total	430	mg/L
OM24D	Compliance	R7	07/23/2024	Chloride, total	400	mg/L
OM24D	Compliance	R7	07/23/2024	Chromium, total	0.0028 U	mg/L
OM24D	Compliance	R7	07/23/2024	Cobalt, total	0.00048 U	mg/L
OM24D	Compliance	R7	07/23/2024	Dissolved Oxygen	1.50	mg/L
OM24D	Compliance	R7	07/23/2024	Fluoride, total	0.25 UJ	mg/L
OM24D	Compliance	R7	07/23/2024	Lead, total	0.00022 U	mg/L
OM24D	Compliance	R7	07/23/2024	Lithium, total	0.0094 J	mg/L
OM24D	Compliance	R7	07/23/2024	Mercury, total	0.00014 U	mg/L
OM24D	Compliance	R7	07/23/2024	Molybdenum, total	0.00480	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R7	07/23/2024	Oxidation Reduction Potential	175	mV
OM24D	Compliance	R7	07/23/2024	pH (field)	6.5	SU
OM24D	Compliance	R7	07/23/2024	Radium 226 + Radium 228, total	1.04	pCi/L
OM24D	Compliance	R7	07/23/2024	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R7	07/23/2024	Specific Conductance @ 25C (field)	3,610	micromhos/cm
OM24D	Compliance	R7	07/23/2024	Sulfate, total	930	mg/L
OM24D	Compliance	R7	07/23/2024	Temperature (Celsius)	19.1	degrees C
OM24D	Compliance	R7	07/23/2024	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R7	07/23/2024	Total Dissolved Solids	2,400	mg/L
OM24D	Compliance	R7	07/23/2024	Turbidity, field	3.00	NTU
OM25S	Compliance	R7	07/24/2024	Antimony, total	0.00043 U	mg/L
OM25S	Compliance	R7	07/24/2024	Arsenic, total	0.00099 J	mg/L
OM25S	Compliance	R7	07/24/2024	Barium, total	0.0280	mg/L
OM25S	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L
OM25S	Compliance	R7	07/24/2024	Boron, total	28.0	mg/L
OM25S	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R7	07/24/2024	Calcium, total	360	mg/L
OM25S	Compliance	R7	07/24/2024	Chloride, total	600	mg/L
OM25S	Compliance	R7	07/24/2024	Chromium, total	0.0033 J	mg/L
OM25S	Compliance	R7	07/24/2024	Cobalt, total	0.00630	mg/L
OM25S	Compliance	R7	07/24/2024	Dissolved Oxygen	0.440	mg/L
OM25S	Compliance	R7	07/24/2024	Fluoride, total	0.25 UJ	mg/L
OM25S	Compliance	R7	07/24/2024	Lead, total	0.00160	mg/L
OM25S	Compliance	R7	07/24/2024	Lithium, total	0.0500	mg/L
OM25S	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OM25S	Compliance	R7	07/24/2024	Molybdenum, total	0.00230	mg/L
OM25S	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-8.00	mV
OM25S	Compliance	R7	07/24/2024	pH (field)	6.2	SU
OM25S	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	0.858	pCi/L
OM25S	Compliance	R7	07/24/2024	Selenium, total	0.00074 U	mg/L
OM25S	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	3,730	micromhos/cm
OM25S	Compliance	R7	07/24/2024	Sulfate, total	660	mg/L
OM25S	Compliance	R7	07/24/2024	Temperature (Celsius)	17.5	degrees C
OM25S	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OM25S	Compliance	R7	07/24/2024	Total Dissolved Solids	2,800	mg/L
OM25S	Compliance	R7	07/24/2024	Turbidity, field	255	NTU
OR02	Compliance	R7	07/29/2024	Antimony, total	0.00043 U	mg/L
OR02	Compliance	R7	07/29/2024	Arsenic, total	0.00200	mg/L
OR02	Compliance	R7	07/29/2024	Barium, total	0.0280	mg/L
OR02	Compliance	R7	07/29/2024	Beryllium, total	0.00059 U	mg/L
OR02	Compliance	R7	07/29/2024	Boron, total	4.90	mg/L
OR02	Compliance	R7	07/29/2024	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R7	07/29/2024	Calcium, total	200	mg/L
OR02	Compliance	R7	07/29/2024	Chloride, total	220	mg/L
OR02	Compliance	R7	07/29/2024	Chromium, total	0.0028 U	mg/L
OR02	Compliance	R7	07/29/2024	Cobalt, total	0.00290	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R7	07/29/2024	Dissolved Oxygen	0.380	mg/L
OR02	Compliance	R7	07/29/2024	Fluoride, total	0.212 J	mg/L
OR02	Compliance	R7	07/29/2024	Lead, total	0.00022 U	mg/L
OR02	Compliance	R7	07/29/2024	Lithium, total	0.005 U	mg/L
OR02	Compliance	R7	07/29/2024	Mercury, total	0.00014 U	mg/L
OR02	Compliance	R7	07/29/2024	Molybdenum, total	0.00220	mg/L
OR02	Compliance	R7	07/29/2024	Oxidation Reduction Potential	-17.0	mV
OR02	Compliance	R7	07/29/2024	pH (field)	6.5	SU
OR02	Compliance	R7	07/29/2024	Radium 226 + Radium 228, total	0.261	pCi/L
OR02	Compliance	R7	07/29/2024	Selenium, total	0.00074 U	mg/L
OR02	Compliance	R7	07/29/2024	Specific Conductance @ 25C (field)	1,910	micromhos/cm
OR02	Compliance	R7	07/29/2024	Sulfate, total	230	mg/L
OR02	Compliance	R7	07/29/2024	Temperature (Celsius)	18.8	degrees C
OR02	Compliance	R7	07/29/2024	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R7	07/29/2024	Total Dissolved Solids	1,100	mg/L
OR02	Compliance	R7	07/29/2024	Turbidity, field	1.60	NTU
OR03D	Compliance	R7	07/30/2024	Antimony, total	0.00067 J	mg/L
OR03D	Compliance	R7	07/30/2024	Arsenic, total	0.00650	mg/L
OR03D	Compliance	R7	07/30/2024	Barium, total	0.110	mg/L
OR03D	Compliance	R7	07/30/2024	Beryllium, total	0.00063 J	mg/L
OR03D	Compliance	R7	07/30/2024	Boron, total	57.0	mg/L
OR03D	Compliance	R7	07/30/2024	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R7	07/30/2024	Calcium, total	630	mg/L
OR03D	Compliance	R7	07/30/2024	Chloride, total	1,400	mg/L
OR03D	Compliance	R7	07/30/2024	Chromium, total	0.0290	mg/L
OR03D	Compliance	R7	07/30/2024	Cobalt, total	0.00990	mg/L
OR03D	Compliance	R7	07/30/2024	Dissolved Oxygen	0.610	mg/L
OR03D	Compliance	R7	07/30/2024	Fluoride, total	0.207 J	mg/L
OR03D	Compliance	R7	07/30/2024	Lead, total	0.0100	mg/L
OR03D	Compliance	R7	07/30/2024	Lithium, total	0.0580	mg/L
OR03D	Compliance	R7	07/30/2024	Mercury, total	0.00017 J	mg/L
OR03D	Compliance	R7	07/30/2024	Molybdenum, total	0.00640	mg/L
OR03D	Compliance	R7	07/30/2024	Oxidation Reduction Potential	-26.0	mV
OR03D	Compliance	R7	07/30/2024	pH (field)	6.3	SU
OR03D	Compliance	R7	07/30/2024	Radium 226 + Radium 228, total	3.19	pCi/L
OR03D	Compliance	R7	07/30/2024	Selenium, total	0.00120	mg/L
OR03D	Compliance	R7	07/30/2024	Specific Conductance @ 25C (field)	5,430	micromhos/cm
OR03D	Compliance	R7	07/30/2024	Sulfate, total	630	mg/L
OR03D	Compliance	R7	07/30/2024	Temperature (Celsius)	17.4	degrees C
OR03D	Compliance	R7	07/30/2024	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R7	07/30/2024	Total Dissolved Solids	4,000	mg/L
OR03D	Compliance	R7	07/30/2024	Turbidity, field	89.1	NTU
OR04D	Compliance	R7	07/24/2024	Antimony, total	0.00052 J	mg/L
OR04D	Compliance	R7	07/24/2024	Arsenic, total	0.00580	mg/L
OR04D	Compliance	R7	07/24/2024	Barium, total	0.0840	mg/L
OR04D	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R7	07/24/2024	Boron, total	80.0	mg/L
OR04D	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R7	07/24/2024	Calcium, total	680	mg/L
OR04D	Compliance	R7	07/24/2024	Chloride, total	1,200	mg/L
OR04D	Compliance	R7	07/24/2024	Chromium, total	0.0150	mg/L
OR04D	Compliance	R7	07/24/2024	Cobalt, total	0.00770	mg/L
OR04D	Compliance	R7	07/24/2024	Dissolved Oxygen	0.390	mg/L
OR04D	Compliance	R7	07/24/2024	Fluoride, total	0.25 UJ	mg/L
OR04D	Compliance	R7	07/24/2024	Lead, total	0.00830	mg/L
OR04D	Compliance	R7	07/24/2024	Lithium, total	0.0710	mg/L
OR04D	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OR04D	Compliance	R7	07/24/2024	Molybdenum, total	0.00530	mg/L
OR04D	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-24.0	mV
OR04D	Compliance	R7	07/24/2024	pH (field)	6.3	SU
OR04D	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	2.18	pCi/L
OR04D	Compliance	R7	07/24/2024	Selenium, total	0.00091 J	mg/L
OR04D	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	6,250	micromhos/cm
OR04D	Compliance	R7	07/24/2024	Sulfate, total	990	mg/L
OR04D	Compliance	R7	07/24/2024	Temperature (Celsius)	17.3	degrees C
OR04D	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R7	07/24/2024	Total Dissolved Solids	5,000	mg/L
OR04D	Compliance	R7	07/24/2024	Turbidity, field	982	NTU
OR06A	Compliance	R7	07/29/2024	Antimony, total	0.00043 U	mg/L
OR06A	Compliance	R7	07/29/2024	Arsenic, total	0.00980	mg/L
OR06A	Compliance	R7	07/29/2024	Barium, total	0.0320	mg/L
OR06A	Compliance	R7	07/29/2024	Beryllium, total	0.00059 U	mg/L
OR06A	Compliance	R7	07/29/2024	Boron, total	100	mg/L
OR06A	Compliance	R7	07/29/2024	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R7	07/29/2024	Calcium, total	600	mg/L
OR06A	Compliance	R7	07/29/2024	Chloride, total	900	mg/L
OR06A	Compliance	R7	07/29/2024	Chromium, total	0.0028 U	mg/L
OR06A	Compliance	R7	07/29/2024	Cobalt, total	0.001 J	mg/L
OR06A	Compliance	R7	07/29/2024	Dissolved Oxygen	2.50	mg/L
OR06A	Compliance	R7	07/29/2024	Fluoride, total	0.178 J	mg/L
OR06A	Compliance	R7	07/29/2024	Lead, total	0.00022 U	mg/L
OR06A	Compliance	R7	07/29/2024	Lithium, total	0.0082 J	mg/L
OR06A	Compliance	R7	07/29/2024	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R7	07/29/2024	Molybdenum, total	0.110	mg/L
OR06A	Compliance	R7	07/29/2024	Oxidation Reduction Potential	-38.0	mV
OR06A	Compliance	R7	07/29/2024	pH (field)	6.5	SU
OR06A	Compliance	R7	07/29/2024	Radium 226 + Radium 228, total	0.366	pCi/L
OR06A	Compliance	R7	07/29/2024	Selenium, total	0.00074 U	mg/L
OR06A	Compliance	R7	07/29/2024	Specific Conductance @ 25C (field)	4,190	micromhos/cm
OR06A	Compliance	R7	07/29/2024	Sulfate, total	950	mg/L
OR06A	Compliance	R7	07/29/2024	Temperature (Celsius)	20.2	degrees C
OR06A	Compliance	R7	07/29/2024	Thallium, total	0.00038 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR06A	Compliance	R7	07/29/2024	Total Dissolved Solids	3,300	mg/L
OR06A	Compliance	R7	07/29/2024	Turbidity, field	919	NTU
OR11	Compliance	R7	07/23/2024	Antimony, total	0.00043 U	mg/L
OR11	Compliance	R7	07/23/2024	Arsenic, total	0.00200	mg/L
OR11	Compliance	R7	07/23/2024	Barium, total	0.0360	mg/L
OR11	Compliance	R7	07/23/2024	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R7	07/23/2024	Boron, total	9.30	mg/L
OR11	Compliance	R7	07/23/2024	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R7	07/23/2024	Calcium, total	140	mg/L
OR11	Compliance	R7	07/23/2024	Chloride, total	92.0	mg/L
OR11	Compliance	R7	07/23/2024	Chromium, total	0.0028 U	mg/L
OR11	Compliance	R7	07/23/2024	Cobalt, total	0.00048 U	mg/L
OR11	Compliance	R7	07/23/2024	Dissolved Oxygen	1.40	mg/L
OR11	Compliance	R7	07/23/2024	Fluoride, total	0.263 J+	mg/L
OR11	Compliance	R7	07/23/2024	Lead, total	0.00022 U	mg/L
OR11	Compliance	R7	07/23/2024	Lithium, total	0.013 J	mg/L
OR11	Compliance	R7	07/23/2024	Mercury, total	0.00016 J	mg/L
OR11	Compliance	R7	07/23/2024	Molybdenum, total	0.00670	mg/L
OR11	Compliance	R7	07/23/2024	Oxidation Reduction Potential	14.0	mV
OR11	Compliance	R7	07/23/2024	pH (field)	6.8	SU
OR11	Compliance	R7	07/23/2024	Radium 226 + Radium 228, total	0.137	pCi/L
OR11	Compliance	R7	07/23/2024	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R7	07/23/2024	Specific Conductance @ 25C (field)	1,410	micromhos/cm
OR11	Compliance	R7	07/23/2024	Sulfate, total	170	mg/L
OR11	Compliance	R7	07/23/2024	Temperature (Celsius)	17.1	degrees C
OR11	Compliance	R7	07/23/2024	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R7	07/23/2024	Total Dissolved Solids	780	mg/L
OR11	Compliance	R7	07/23/2024	Turbidity, field	0 U	NTU
OR13S	Compliance	R7	07/24/2024	Antimony, total	0.00043 U	mg/L
OR13S	Compliance	R7	07/24/2024	Arsenic, total	0.00710	mg/L
OR13S	Compliance	R7	07/24/2024	Barium, total	0.0290	mg/L
OR13S	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R7	07/24/2024	Boron, total	2.20	mg/L
OR13S	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R7	07/24/2024	Calcium, total	250	mg/L
OR13S	Compliance	R7	07/24/2024	Chloride, total	26.0	mg/L
OR13S	Compliance	R7	07/24/2024	Chromium, total	0.0028 U	mg/L
OR13S	Compliance	R7	07/24/2024	Cobalt, total	0.00086 J	mg/L
OR13S	Compliance	R7	07/24/2024	Dissolved Oxygen	1.00	mg/L
OR13S	Compliance	R7	07/24/2024	Fluoride, total	0.25 UJ	mg/L
OR13S	Compliance	R7	07/24/2024	Lead, total	0.00022 U	mg/L
OR13S	Compliance	R7	07/24/2024	Lithium, total	0.015 J	mg/L
OR13S	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R7	07/24/2024	Molybdenum, total	0.00820	mg/L
OR13S	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-54.0	mV
OR13S	Compliance	R7	07/24/2024	pH (field)	7.0	SU

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	2.38	pCi/L
OR13S	Compliance	R7	07/24/2024	Selenium, total	0.00074 U	mg/L
OR13S	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	1,870	micromhos/cm
OR13S	Compliance	R7	07/24/2024	Sulfate, total	630	mg/L
OR13S	Compliance	R7	07/24/2024	Temperature (Celsius)	19.5	degrees C
OR13S	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R7	07/24/2024	Total Dissolved Solids	1,200	mg/L
OR13S	Compliance	R7	07/24/2024	Turbidity, field	0 U	NTU
OR13D	Compliance	R7	07/24/2024	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R7	07/24/2024	Arsenic, total	0.00380	mg/L
OR13D	Compliance	R7	07/24/2024	Barium, total	0.0290	mg/L
OR13D	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L
OR13D	Compliance	R7	07/24/2024	Boron, total	1.80	mg/L
OR13D	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R7	07/24/2024	Calcium, total	110	mg/L
OR13D	Compliance	R7	07/24/2024	Chloride, total	44.0	mg/L
OR13D	Compliance	R7	07/24/2024	Chromium, total	0.0028 U	mg/L
OR13D	Compliance	R7	07/24/2024	Cobalt, total	0.00048 U	mg/L
OR13D	Compliance	R7	07/24/2024	Dissolved Oxygen	0.320	mg/L
OR13D	Compliance	R7	07/24/2024	Fluoride, total	0.255 J+	mg/L
OR13D	Compliance	R7	07/24/2024	Lead, total	0.00022 U	mg/L
OR13D	Compliance	R7	07/24/2024	Lithium, total	0.0250	mg/L
OR13D	Compliance	R7	07/24/2024	Mercury, total	0.00017 J	mg/L
OR13D	Compliance	R7	07/24/2024	Molybdenum, total	0.00810	mg/L
OR13D	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-47.0	mV
OR13D	Compliance	R7	07/24/2024	pH (field)	6.7	SU
OR13D	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	1.03	pCi/L
OR13D	Compliance	R7	07/24/2024	Selenium, total	0.00074 U	mg/L
OR13D	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	2,210	micromhos/cm
OR13D	Compliance	R7	07/24/2024	Sulfate, total	280	mg/L
OR13D	Compliance	R7	07/24/2024	Temperature (Celsius)	16.3	degrees C
OR13D	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R7	07/24/2024	Total Dissolved Solids	1,100	mg/L
OR13D	Compliance	R7	07/24/2024	Turbidity, field	0 U	NTU
OR14D	Compliance	R7	07/24/2024	Antimony, total	0.00043 U	mg/L
OR14D	Compliance	R7	07/24/2024	Arsenic, total	0.0120	mg/L
OR14D	Compliance	R7	07/24/2024	Barium, total	0.0580	mg/L
OR14D	Compliance	R7	07/24/2024	Beryllium, total	0.00059 U	mg/L
OR14D	Compliance	R7	07/24/2024	Boron, total	10.0	mg/L
OR14D	Compliance	R7	07/24/2024	Cadmium, total	0.00074 U	mg/L
OR14D	Compliance	R7	07/24/2024	Calcium, total	300	mg/L
OR14D	Compliance	R7	07/24/2024	Chloride, total	220	mg/L
OR14D	Compliance	R7	07/24/2024	Chromium, total	0.0028 U	mg/L
OR14D	Compliance	R7	07/24/2024	Cobalt, total	0.00061 J	mg/L
OR14D	Compliance	R7	07/24/2024	Dissolved Oxygen	1.20	mg/L
OR14D	Compliance	R7	07/24/2024	Fluoride, total	0.25 UJ	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R7	07/24/2024	Lead, total	0.00022 U	mg/L
OR14D	Compliance	R7	07/24/2024	Lithium, total	0.014 J	mg/L
OR14D	Compliance	R7	07/24/2024	Mercury, total	0.00014 U	mg/L
OR14D	Compliance	R7	07/24/2024	Molybdenum, total	0.00200	mg/L
OR14D	Compliance	R7	07/24/2024	Oxidation Reduction Potential	-97.0	mV
OR14D	Compliance	R7	07/24/2024	pH (field)	7.0	SU
OR14D	Compliance	R7	07/24/2024	Radium 226 + Radium 228, total	1.62	pCi/L
OR14D	Compliance	R7	07/24/2024	Selenium, total	0.00074 U	mg/L
OR14D	Compliance	R7	07/24/2024	Specific Conductance @ 25C (field)	2,590	micromhos/cm
OR14D	Compliance	R7	07/24/2024	Sulfate, total	520	mg/L
OR14D	Compliance	R7	07/24/2024	Temperature (Celsius)	18.1	degrees C
OR14D	Compliance	R7	07/24/2024	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R7	07/24/2024	Total Dissolved Solids	1,600	mg/L
OR14D	Compliance	R7	07/24/2024	Turbidity, field	0 U	NTU
OR19	Compliance	R7	07/25/2024	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R7	07/25/2024	Arsenic, total	0.00078 J	mg/L
OR19	Compliance	R7	07/25/2024	Barium, total	0.0120	mg/L
OR19	Compliance	R7	07/25/2024	Beryllium, total	0.00059 U	mg/L
OR19	Compliance	R7	07/25/2024	Boron, total	11.0	mg/L
OR19	Compliance	R7	07/25/2024	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R7	07/25/2024	Calcium, total	260	mg/L
OR19	Compliance	R7	07/25/2024	Chloride, total	110	mg/L
OR19	Compliance	R7	07/25/2024	Chromium, total	0.0028 U	mg/L
OR19	Compliance	R7	07/25/2024	Cobalt, total	0.00048 U	mg/L
OR19	Compliance	R7	07/25/2024	Dissolved Oxygen	1.20	mg/L
OR19	Compliance	R7	07/25/2024	Fluoride, total	0.371	mg/L
OR19	Compliance	R7	07/25/2024	Lead, total	0.00022 U	mg/L
OR19	Compliance	R7	07/25/2024	Lithium, total	0.017 J	mg/L
OR19	Compliance	R7	07/25/2024	Mercury, total	0.00014 U	mg/L
OR19	Compliance	R7	07/25/2024	Molybdenum, total	0.00330	mg/L
OR19	Compliance	R7	07/25/2024	Oxidation Reduction Potential	-46.0	mV
OR19	Compliance	R7	07/25/2024	pH (field)	7.1	SU
OR19	Compliance	R7	07/25/2024	Radium 226 + Radium 228, total	0.660	pCi/L
OR19	Compliance	R7	07/25/2024	Selenium, total	0.00074 U	mg/L
OR19	Compliance	R7	07/25/2024	Specific Conductance @ 25C (field)	2,690	micromhos/cm
OR19	Compliance	R7	07/25/2024	Sulfate, total	700	mg/L
OR19	Compliance	R7	07/25/2024	Temperature (Celsius)	20.9	degrees C
OR19	Compliance	R7	07/25/2024	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R7	07/25/2024	Total Dissolved Solids	1,800	mg/L
OR19	Compliance	R7	07/25/2024	Turbidity, field	0 U	NTU
OR20	Compliance	R7	07/23/2024	Antimony, total	0.00043 U	mg/L
OR20	Compliance	R7	07/23/2024	Arsenic, total	0.00140	mg/L
OR20	Compliance	R7	07/23/2024	Barium, total	0.0180	mg/L
OR20	Compliance	R7	07/23/2024	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R7	07/23/2024	Boron, total	29.0	mg/L
OR20	Compliance	R7	07/23/2024	Cadmium, total	0.00074 U	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R7	07/23/2024	Calcium, total	230	mg/L
OR20	Compliance	R7	07/23/2024	Chloride, total	360	mg/L
OR20	Compliance	R7	07/23/2024	Chromium, total	0.0028 U	mg/L
OR20	Compliance	R7	07/23/2024	Cobalt, total	0.00048 U	mg/L
OR20	Compliance	R7	07/23/2024	Dissolved Oxygen	3.20	mg/L
OR20	Compliance	R7	07/23/2024	Fluoride, total	0.490 J+	mg/L
OR20	Compliance	R7	07/23/2024	Lead, total	0.00022 U	mg/L
OR20	Compliance	R7	07/23/2024	Lithium, total	0.0370	mg/L
OR20	Compliance	R7	07/23/2024	Mercury, total	0.00014 U	mg/L
OR20	Compliance	R7	07/23/2024	Molybdenum, total	0.0360	mg/L
OR20	Compliance	R7	07/23/2024	Oxidation Reduction Potential	80.0	mV
OR20	Compliance	R7	07/23/2024	pH (field)	7.0	SU
OR20	Compliance	R7	07/23/2024	Radium 226 + Radium 228, total	0.994	pCi/L
OR20	Compliance	R7	07/23/2024	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R7	07/23/2024	Specific Conductance @ 25C (field)	2,700	micromhos/cm
OR20	Compliance	R7	07/23/2024	Sulfate, total	410	mg/L
OR20	Compliance	R7	07/23/2024	Temperature (Celsius)	21.5	degrees C
OR20	Compliance	R7	07/23/2024	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R7	07/23/2024	Total Dissolved Solids	1,700	mg/L
OR20	Compliance	R7	07/23/2024	Turbidity, field	0 U	NTU

Notes:
C = Celsius
cm = centimeter
Event IDs:
R7 = seventh round of sampling to establish background
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
Result Code (if applicable):
Result qualifiers as defined in the United States Environmental Protection Agency's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA 542-R-20-006. November 2020.:
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
SU = Standard Units

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
BA06	Background	R8	10/23/2024	Antimony, total	0.00043 U	mg/L
BA06	Background	R8	10/23/2024	Arsenic, total	0.00150	mg/L
BA06	Background	R8	10/23/2024	Barium, total	0.0890	mg/L
BA06	Background	R8	10/23/2024	Beryllium, total	0.00059 U	mg/L
BA06	Background	R8	10/23/2024	Boron, total	16.0	mg/L
BA06	Background	R8	10/23/2024	Cadmium, total	0.00074 U	mg/L
BA06	Background	R8	10/23/2024	Calcium, total	310	mg/L
BA06	Background	R8	10/23/2024	Chloride, total	600	mg/L
BA06	Background	R8	10/23/2024	Chromium, total	0.0028 U	mg/L
BA06	Background	R8	10/23/2024	Cobalt, total	0.00330	mg/L
BA06	Background	R8	10/23/2024	Dissolved Oxygen	0	mg/L
BA06	Background	R8	10/23/2024	Fluoride, total	0.245 J	mg/L
BA06	Background	R8	10/23/2024	Lead, total	0.00022 U	mg/L
BA06	Background	R8	10/23/2024	Lithium, total	0.005 U	mg/L
BA06	Background	R8	10/23/2024	Mercury, total	0.00014 U	mg/L
BA06	Background	R8	10/23/2024	Molybdenum, total	0.00110	mg/L
BA06	Background	R8	10/23/2024	Oxidation Reduction Potential	10.0	mV
BA06	Background	R8	10/23/2024	pH (field)	7.3	SU
BA06	Background	R8	10/23/2024	Radium 226 + Radium 228, total	0.591	pCi/L
BA06	Background	R8	10/23/2024	Selenium, total	0.00074 U	mg/L
BA06	Background	R8	10/23/2024	Specific Conductance @ 25C (field)	2,750	micromhos/cm
BA06	Background	R8	10/23/2024	Sulfate, total	390	mg/L
BA06	Background	R8	10/23/2024	Temperature (Celsius)	15.2	degrees C
BA06	Background	R8	10/23/2024	Thallium, total	0.00038 U	mg/L
BA06	Background	R8	10/23/2024	Total Dissolved Solids	1,900	mg/L
BA06	Background	R8	10/23/2024	Turbidity, field	24.9	NTU
OM16	Background	R8	10/16/2024	Antimony, total	0.00043 U	mg/L
OM16	Background	R8	10/16/2024	Arsenic, total	0.00071 J	mg/L
OM16	Background	R8	10/16/2024	Barium, total	0.0160	mg/L
OM16	Background	R8	10/16/2024	Beryllium, total	0.00059 U	mg/L
OM16	Background	R8	10/16/2024	Boron, total	0.0510	mg/L
OM16	Background	R8	10/16/2024	Cadmium, total	0.00074 U	mg/L
OM16	Background	R8	10/16/2024	Calcium, total	620	mg/L
OM16	Background	R8	10/16/2024	Chloride, total	7.10	mg/L
OM16	Background	R8	10/16/2024	Chromium, total	0.0028 U	mg/L
OM16	Background	R8	10/16/2024	Cobalt, total	0.00340	mg/L
OM16	Background	R8	10/16/2024	Dissolved Oxygen	0.710	mg/L
OM16	Background	R8	10/16/2024	Fluoride, total	0.2 U	mg/L
OM16	Background	R8	10/16/2024	Lead, total	0.00100	mg/L
OM16	Background	R8	10/16/2024	Lithium, total	0.0300	mg/L
OM16	Background	R8	10/16/2024	Mercury, total	0.00014 U	mg/L
OM16	Background	R8	10/16/2024	Molybdenum, total	0.00074 U	mg/L
OM16	Background	R8	10/16/2024	Oxidation Reduction Potential	99.3	mV
OM16	Background	R8	10/16/2024	pH (field)	6.3	SU
OM16	Background	R8	10/16/2024	Radium 226 + Radium 228, total	1.20	pCi/L
OM16	Background	R8	10/16/2024	Selenium, total	0.00074 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM16	Background	R8	10/16/2024	Specific Conductance @ 25C (field)	4,025	micromhos/cm
OM16	Background	R8	10/16/2024	Sulfate, total	2,100	mg/L
OM16	Background	R8	10/16/2024	Temperature (Celsius)	11.8	degrees C
OM16	Background	R8	10/16/2024	Thallium, total	0.00038 U	mg/L
OM16	Background	R8	10/16/2024	Total Dissolved Solids	4,000	mg/L
OM16	Background	R8	10/16/2024	Turbidity, field	31.6	NTU
OM17	Background	R8	10/16/2024	Antimony, total	0.00043 U	mg/L
OM17	Background	R8	10/16/2024	Arsenic, total	0.00210	mg/L
OM17	Background	R8	10/16/2024	Barium, total	0.0560	mg/L
OM17	Background	R8	10/16/2024	Beryllium, total	0.00059 U	mg/L
OM17	Background	R8	10/16/2024	Boron, total	0.180	mg/L
OM17	Background	R8	10/16/2024	Cadmium, total	0.00074 U	mg/L
OM17	Background	R8	10/16/2024	Calcium, total	130	mg/L
OM17	Background	R8	10/16/2024	Chromium, total	0.0028 U	mg/L
OM17	Background	R8	10/16/2024	Cobalt, total	0.00240	mg/L
OM17	Background	R8	10/16/2024	Dissolved Oxygen	1.60	mg/L
OM17	Background	R8	10/16/2024	Lead, total	0.00022 U	mg/L
OM17	Background	R8	10/16/2024	Lithium, total	0.0091 J	mg/L
OM17	Background	R8	10/16/2024	Mercury, total	0.00014 U	mg/L
OM17	Background	R8	10/16/2024	Molybdenum, total	0.00074 U	mg/L
OM17	Background	R8	10/16/2024	Oxidation Reduction Potential	-73.8	mV
OM17	Background	R8	10/16/2024	pH (field)	6.5	SU
OM17	Background	R8	10/16/2024	Selenium, total	0.00074 U	mg/L
OM17	Background	R8	10/16/2024	Specific Conductance @ 25C (field)	855	micromhos/cm
OM17	Background	R8	10/16/2024	Temperature (Celsius)	14.5	degrees C
OM17	Background	R8	10/16/2024	Thallium, total	0.00038 U	mg/L
OM17	Background	R8	10/16/2024	Turbidity, field	13.0	NTU
OM01	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OM01	Compliance	R8	10/24/2024	Arsenic, total	0.00069 U	mg/L
OM01	Compliance	R8	10/24/2024	Barium, total	0.0120 J+	mg/L
OM01	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OM01	Compliance	R8	10/24/2024	Boron, total	0.230	mg/L
OM01	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OM01	Compliance	R8	10/24/2024	Calcium, total	610	mg/L
OM01	Compliance	R8	10/24/2024	Chloride, total	45.0	mg/L
OM01	Compliance	R8	10/24/2024	Chromium, total	0.0028 U	mg/L
OM01	Compliance	R8	10/24/2024	Cobalt, total	0.0130 J	mg/L
OM01	Compliance	R8	10/24/2024	Dissolved Oxygen	0	mg/L
OM01	Compliance	R8	10/24/2024	Fluoride, total	0.2 U	mg/L
OM01	Compliance	R8	10/24/2024	Lead, total	0.00036 J	mg/L
OM01	Compliance	R8	10/24/2024	Lithium, total	0.0053 J	mg/L
OM01	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OM01	Compliance	R8	10/24/2024	Molybdenum, total	0.00074 U	mg/L
OM01	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-19.0	mV
OM01	Compliance	R8	10/24/2024	pH (field)	7.1	SU
OM01	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	0.430	pCi/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM01	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OM01	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	3,340	micromhos/cm
OM01	Compliance	R8	10/24/2024	Sulfate, total	1,700	mg/L
OM01	Compliance	R8	10/24/2024	Temperature (Celsius)	15.6	degrees C
OM01	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OM01	Compliance	R8	10/24/2024	Total Dissolved Solids	3,100 J	mg/L
OM01	Compliance	R8	10/24/2024	Turbidity, field	0	NTU
OM04S	Compliance	R8	10/15/2024	Antimony, total	0.00043 U	mg/L
OM04S	Compliance	R8	10/15/2024	Arsenic, total	0.00120	mg/L
OM04S	Compliance	R8	10/15/2024	Barium, total	0.0450	mg/L
OM04S	Compliance	R8	10/15/2024	Beryllium, total	0.00059 U	mg/L
OM04S	Compliance	R8	10/15/2024	Boron, total	0.0530	mg/L
OM04S	Compliance	R8	10/15/2024	Cadmium, total	0.00074 U	mg/L
OM04S	Compliance	R8	10/15/2024	Calcium, total	160	mg/L
OM04S	Compliance	R8	10/15/2024	Chloride, total	14.0	mg/L
OM04S	Compliance	R8	10/15/2024	Chromium, total	0.0028 U	mg/L
OM04S	Compliance	R8	10/15/2024	Cobalt, total	0.00620	mg/L
OM04S	Compliance	R8	10/15/2024	Dissolved Oxygen	0.510	mg/L
OM04S	Compliance	R8	10/15/2024	Fluoride, total	0.197 J	mg/L
OM04S	Compliance	R8	10/15/2024	Lead, total	0.00022 U	mg/L
OM04S	Compliance	R8	10/15/2024	Lithium, total	0.005 U	mg/L
OM04S	Compliance	R8	10/15/2024	Mercury, total	0.00014 U	mg/L
OM04S	Compliance	R8	10/15/2024	Molybdenum, total	0.00074 U	mg/L
OM04S	Compliance	R8	10/15/2024	Oxidation Reduction Potential	-26.2	mV
OM04S	Compliance	R8	10/15/2024	pH (field)	6.7	SU
OM04S	Compliance	R8	10/15/2024	Radium 226 + Radium 228, total	0.512	pCi/L
OM04S	Compliance	R8	10/15/2024	Selenium, total	0.00074 U	mg/L
OM04S	Compliance	R8	10/15/2024	Specific Conductance @ 25C (field)	1,239	micromhos/cm
OM04S	Compliance	R8	10/15/2024	Sulfate, total	130	mg/L
OM04S	Compliance	R8	10/15/2024	Temperature (Celsius)	13.2	degrees C
OM04S	Compliance	R8	10/15/2024	Thallium, total	0.00038 U	mg/L
OM04S	Compliance	R8	10/15/2024	Total Dissolved Solids	720 J	mg/L
OM04S	Compliance	R8	10/15/2024	Turbidity, field	150	NTU
OM07	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OM07	Compliance	R8	10/24/2024	Arsenic, total	0.00086 J	mg/L
OM07	Compliance	R8	10/24/2024	Barium, total	0.0490	mg/L
OM07	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OM07	Compliance	R8	10/24/2024	Boron, total	0.520	mg/L
OM07	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OM07	Compliance	R8	10/24/2024	Calcium, total	130	mg/L
OM07	Compliance	R8	10/24/2024	Chloride, total	9.90	mg/L
OM07	Compliance	R8	10/24/2024	Chromium, total	0.0028 U	mg/L
OM07	Compliance	R8	10/24/2024	Cobalt, total	0.00048 U	mg/L
OM07	Compliance	R8	10/24/2024	Dissolved Oxygen	0.0200	mg/L
OM07	Compliance	R8	10/24/2024	Fluoride, total	0.204 J	mg/L
OM07	Compliance	R8	10/24/2024	Lead, total	0.00022 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM07	Compliance	R8	10/24/2024	Lithium, total	0.0054 J	mg/L
OM07	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OM07	Compliance	R8	10/24/2024	Molybdenum, total	0.00120	mg/L
OM07	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-107	mV
OM07	Compliance	R8	10/24/2024	pH (field)	6.8	SU
OM07	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	0.896	pCi/L
OM07	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OM07	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	1,276	micromhos/cm
OM07	Compliance	R8	10/24/2024	Sulfate, total	190	mg/L
OM07	Compliance	R8	10/24/2024	Temperature (Celsius)	12.9	degrees C
OM07	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OM07	Compliance	R8	10/24/2024	Total Dissolved Solids	720 J	mg/L
OM07	Compliance	R8	10/24/2024	Turbidity, field	0	NTU
OM12	Compliance	R8	10/17/2024	Antimony, total	0.00043 U	mg/L
OM12	Compliance	R8	10/17/2024	Arsenic, total	0.0220	mg/L
OM12	Compliance	R8	10/17/2024	Barium, total	0.210	mg/L
OM12	Compliance	R8	10/17/2024	Beryllium, total	0.00059 U	mg/L
OM12	Compliance	R8	10/17/2024	Boron, total	0.0480 J+	mg/L
OM12	Compliance	R8	10/17/2024	Cadmium, total	0.00074 U	mg/L
OM12	Compliance	R8	10/17/2024	Calcium, total	290	mg/L
OM12	Compliance	R8	10/17/2024	Chloride, total	3.40	mg/L
OM12	Compliance	R8	10/17/2024	Chromium, total	0.0028 U	mg/L
OM12	Compliance	R8	10/17/2024	Cobalt, total	0.0017 J	mg/L
OM12	Compliance	R8	10/17/2024	Dissolved Oxygen	2.30	mg/L
OM12	Compliance	R8	10/17/2024	Fluoride, total	0.202 J	mg/L
OM12	Compliance	R8	10/17/2024	Lead, total	0.00022 U	mg/L
OM12	Compliance	R8	10/17/2024	Lithium, total	0.005 U	mg/L
OM12	Compliance	R8	10/17/2024	Mercury, total	0.00014 U	mg/L
OM12	Compliance	R8	10/17/2024	Molybdenum, total	0.00250	mg/L
OM12	Compliance	R8	10/17/2024	Oxidation Reduction Potential	-85.0	mV
OM12	Compliance	R8	10/17/2024	pH (field)	6.6	SU
OM12	Compliance	R8	10/17/2024	Radium 226 + Radium 228, total	1.43	pCi/L
OM12	Compliance	R8	10/17/2024	Selenium, total	0.00074 U	mg/L
OM12	Compliance	R8	10/17/2024	Specific Conductance @ 25C (field)	2,250	micromhos/cm
OM12	Compliance	R8	10/17/2024	Sulfate, total	390	mg/L
OM12	Compliance	R8	10/17/2024	Temperature (Celsius)	16.6	degrees C
OM12	Compliance	R8	10/17/2024	Thallium, total	0.00038 U	mg/L
OM12	Compliance	R8	10/17/2024	Total Dissolved Solids	1,400	mg/L
OM12	Compliance	R8	10/17/2024	Turbidity, field	0	NTU
OM21	Compliance	R8	10/16/2024	Antimony, total	0.00380	mg/L
OM21	Compliance	R8	10/16/2024	Arsenic, total	0.00077 J	mg/L
OM21	Compliance	R8	10/16/2024	Barium, total	0.0220	mg/L
OM21	Compliance	R8	10/16/2024	Beryllium, total	0.00059 U	mg/L
OM21	Compliance	R8	10/16/2024	Boron, total	8.80	mg/L
OM21	Compliance	R8	10/16/2024	Cadmium, total	0.00074 U	mg/L
OM21	Compliance	R8	10/16/2024	Calcium, total	320	mg/L

TABLE 1.
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM21	Compliance	R8	10/16/2024	Chloride, total	240	mg/L
OM21	Compliance	R8	10/16/2024	Chromium, total	0.0028 U	mg/L
OM21	Compliance	R8	10/16/2024	Cobalt, total	0.00048 U	mg/L
OM21	Compliance	R8	10/16/2024	Dissolved Oxygen	0.460	mg/L
OM21	Compliance	R8	10/16/2024	Fluoride, total	0.2 U	mg/L
OM21	Compliance	R8	10/16/2024	Lead, total	0.00036 J	mg/L
OM21	Compliance	R8	10/16/2024	Lithium, total	0.0400	mg/L
OM21	Compliance	R8	10/16/2024	Mercury, total	0.00014 U	mg/L
OM21	Compliance	R8	10/16/2024	Molybdenum, total	0.00200	mg/L
OM21	Compliance	R8	10/16/2024	Oxidation Reduction Potential	-76.8	mV
OM21	Compliance	R8	10/16/2024	pH (field)	6.8	SU
OM21	Compliance	R8	10/16/2024	Radium 226 + Radium 228, total	1.55	pCi/L
OM21	Compliance	R8	10/16/2024	Selenium, total	0.00074 U	mg/L
OM21	Compliance	R8	10/16/2024	Specific Conductance @ 25C (field)	3,426	micromhos/cm
OM21	Compliance	R8	10/16/2024	Sulfate, total	990	mg/L
OM21	Compliance	R8	10/16/2024	Temperature (Celsius)	13.3	degrees C
OM21	Compliance	R8	10/16/2024	Thallium, total	0.00038 U	mg/L
OM21	Compliance	R8	10/16/2024	Total Dissolved Solids	2,600	mg/L
OM21	Compliance	R8	10/16/2024	Turbidity, field	67.0	NTU
OM22D	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OM22D	Compliance	R8	10/24/2024	Arsenic, total	0.00320	mg/L
OM22D	Compliance	R8	10/24/2024	Barium, total	0.0450	mg/L
OM22D	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OM22D	Compliance	R8	10/24/2024	Boron, total	63.0	mg/L
OM22D	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OM22D	Compliance	R8	10/24/2024	Calcium, total	620	mg/L
OM22D	Compliance	R8	10/24/2024	Chloride, total	1,000	mg/L
OM22D	Compliance	R8	10/24/2024	Chromium, total	0.0250	mg/L
OM22D	Compliance	R8	10/24/2024	Cobalt, total	0.00330	mg/L
OM22D	Compliance	R8	10/24/2024	Dissolved Oxygen	0.940	mg/L
OM22D	Compliance	R8	10/24/2024	Fluoride, total	0.2 U	mg/L
OM22D	Compliance	R8	10/24/2024	Lead, total	0.00190	mg/L
OM22D	Compliance	R8	10/24/2024	Lithium, total	0.0460	mg/L
OM22D	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OM22D	Compliance	R8	10/24/2024	Molybdenum, total	0.130	mg/L
OM22D	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-105	mV
OM22D	Compliance	R8	10/24/2024	pH (field)	6.7	SU
OM22D	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	1.87	pCi/L
OM22D	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OM22D	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	4,777	micromhos/cm
OM22D	Compliance	R8	10/24/2024	Sulfate, total	830	mg/L
OM22D	Compliance	R8	10/24/2024	Temperature (Celsius)	13.3	degrees C
OM22D	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OM22D	Compliance	R8	10/24/2024	Total Dissolved Solids	3,500 J	mg/L
OM22D	Compliance	R8	10/24/2024	Turbidity, field	312	NTU
OM23D	Compliance	R8	10/17/2024	Antimony, total	0.00043 U	mg/L

TABLE 1.
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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM23D	Compliance	R8	10/17/2024	Arsenic, total	0.00200	mg/L
OM23D	Compliance	R8	10/17/2024	Barium, total	0.0440	mg/L
OM23D	Compliance	R8	10/17/2024	Beryllium, total	0.00059 U	mg/L
OM23D	Compliance	R8	10/17/2024	Boron, total	1.90	mg/L
OM23D	Compliance	R8	10/17/2024	Cadmium, total	0.00074 U	mg/L
OM23D	Compliance	R8	10/17/2024	Calcium, total	170	mg/L
OM23D	Compliance	R8	10/17/2024	Chloride, total	27.0	mg/L
OM23D	Compliance	R8	10/17/2024	Chromium, total	0.00580	mg/L
OM23D	Compliance	R8	10/17/2024	Cobalt, total	0.0015 J	mg/L
OM23D	Compliance	R8	10/17/2024	Dissolved Oxygen	0.500	mg/L
OM23D	Compliance	R8	10/17/2024	Fluoride, total	0.2 U	mg/L
OM23D	Compliance	R8	10/17/2024	Lead, total	0.00160	mg/L
OM23D	Compliance	R8	10/17/2024	Lithium, total	0.0370	mg/L
OM23D	Compliance	R8	10/17/2024	Mercury, total	0.00014 U	mg/L
OM23D	Compliance	R8	10/17/2024	Molybdenum, total	0.00250	mg/L
OM23D	Compliance	R8	10/17/2024	Oxidation Reduction Potential	-68.8	mV
OM23D	Compliance	R8	10/17/2024	pH (field)	6.6	SU
OM23D	Compliance	R8	10/17/2024	Radium 226 + Radium 228, total	0.418	pCi/L
OM23D	Compliance	R8	10/17/2024	Selenium, total	0.00074 U	mg/L
OM23D	Compliance	R8	10/17/2024	Specific Conductance @ 25C (field)	1,797	micromhos/cm
OM23D	Compliance	R8	10/17/2024	Sulfate, total	370	mg/L
OM23D	Compliance	R8	10/17/2024	Temperature (Celsius)	15.0	degrees C
OM23D	Compliance	R8	10/17/2024	Thallium, total	0.00038 U	mg/L
OM23D	Compliance	R8	10/17/2024	Total Dissolved Solids	1,100	mg/L
OM23D	Compliance	R8	10/17/2024	Turbidity, field	267	NTU
OM24D	Compliance	R8	10/16/2024	Antimony, total	0.00043 U	mg/L
OM24D	Compliance	R8	10/16/2024	Arsenic, total	0.00390	mg/L
OM24D	Compliance	R8	10/16/2024	Barium, total	0.0180	mg/L
OM24D	Compliance	R8	10/16/2024	Beryllium, total	0.00059 U	mg/L
OM24D	Compliance	R8	10/16/2024	Boron, total	23.0	mg/L
OM24D	Compliance	R8	10/16/2024	Cadmium, total	0.00074 U	mg/L
OM24D	Compliance	R8	10/16/2024	Calcium, total	410	mg/L
OM24D	Compliance	R8	10/16/2024	Chloride, total	350	mg/L
OM24D	Compliance	R8	10/16/2024	Chromium, total	0.0028 U	mg/L
OM24D	Compliance	R8	10/16/2024	Cobalt, total	0.00048 U	mg/L
OM24D	Compliance	R8	10/16/2024	Dissolved Oxygen	0.160	mg/L
OM24D	Compliance	R8	10/16/2024	Fluoride, total	0.2 U	mg/L
OM24D	Compliance	R8	10/16/2024	Lead, total	0.00270	mg/L
OM24D	Compliance	R8	10/16/2024	Lithium, total	0.014 J	mg/L
OM24D	Compliance	R8	10/16/2024	Mercury, total	0.00014 U	mg/L
OM24D	Compliance	R8	10/16/2024	Molybdenum, total	0.00490	mg/L
OM24D	Compliance	R8	10/16/2024	Oxidation Reduction Potential	-39.1	mV
OM24D	Compliance	R8	10/16/2024	pH (field)	6.6	SU
OM24D	Compliance	R8	10/16/2024	Radium 226 + Radium 228, total	1.16	pCi/L
OM24D	Compliance	R8	10/16/2024	Selenium, total	0.00074 U	mg/L
OM24D	Compliance	R8	10/16/2024	Specific Conductance @ 25C (field)	3,229	micromhos/cm

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OM24D	Compliance	R8	10/16/2024	Sulfate, total	750	mg/L
OM24D	Compliance	R8	10/16/2024	Temperature (Celsius)	15.7	degrees C
OM24D	Compliance	R8	10/16/2024	Thallium, total	0.00038 U	mg/L
OM24D	Compliance	R8	10/16/2024	Total Dissolved Solids	2,300	mg/L
OM24D	Compliance	R8	10/16/2024	Turbidity, field	40.3	NTU
OM25S	Compliance	R8	10/17/2024	Antimony, total	0.00043 U	mg/L
OM25S	Compliance	R8	10/17/2024	Arsenic, total	0.00110	mg/L
OM25S	Compliance	R8	10/17/2024	Barium, total	0.0310	mg/L
OM25S	Compliance	R8	10/17/2024	Beryllium, total	0.00059 U	mg/L
OM25S	Compliance	R8	10/17/2024	Boron, total	30.0	mg/L
OM25S	Compliance	R8	10/17/2024	Cadmium, total	0.00074 U	mg/L
OM25S	Compliance	R8	10/17/2024	Calcium, total	380	mg/L
OM25S	Compliance	R8	10/17/2024	Chloride, total	640	mg/L
OM25S	Compliance	R8	10/17/2024	Chromium, total	0.0100	mg/L
OM25S	Compliance	R8	10/17/2024	Cobalt, total	0.00620	mg/L
OM25S	Compliance	R8	10/17/2024	Dissolved Oxygen	1.10	mg/L
OM25S	Compliance	R8	10/17/2024	Fluoride, total	0.2 U	mg/L
OM25S	Compliance	R8	10/17/2024	Lead, total	0.00110	mg/L
OM25S	Compliance	R8	10/17/2024	Lithium, total	0.0560	mg/L
OM25S	Compliance	R8	10/17/2024	Mercury, total	0.00014 U	mg/L
OM25S	Compliance	R8	10/17/2024	Molybdenum, total	0.00230	mg/L
OM25S	Compliance	R8	10/17/2024	Oxidation Reduction Potential	-17.2	mV
OM25S	Compliance	R8	10/17/2024	pH (field)	6.5	SU
OM25S	Compliance	R8	10/17/2024	Radium 226 + Radium 228, total	1.41	pCi/L
OM25S	Compliance	R8	10/17/2024	Selenium, total	0.00074 U	mg/L
OM25S	Compliance	R8	10/17/2024	Specific Conductance @ 25C (field)	3,768	micromhos/cm
OM25S	Compliance	R8	10/17/2024	Sulfate, total	730	mg/L
OM25S	Compliance	R8	10/17/2024	Temperature (Celsius)	16.3	degrees C
OM25S	Compliance	R8	10/17/2024	Thallium, total	0.00038 U	mg/L
OM25S	Compliance	R8	10/17/2024	Total Dissolved Solids	2,600 J	mg/L
OM25S	Compliance	R8	10/17/2024	Turbidity, field	280	NTU
OR02	Compliance	R8	10/16/2024	Antimony, total	0.00056 J	mg/L
OR02	Compliance	R8	10/16/2024	Arsenic, total	0.00270	mg/L
OR02	Compliance	R8	10/16/2024	Barium, total	0.0330	mg/L
OR02	Compliance	R8	10/16/2024	Beryllium, total	0.00059 U	mg/L
OR02	Compliance	R8	10/16/2024	Boron, total	5.30	mg/L
OR02	Compliance	R8	10/16/2024	Cadmium, total	0.00074 U	mg/L
OR02	Compliance	R8	10/16/2024	Calcium, total	210	mg/L
OR02	Compliance	R8	10/16/2024	Chloride, total	180	mg/L
OR02	Compliance	R8	10/16/2024	Chromium, total	0.0028 U	mg/L
OR02	Compliance	R8	10/16/2024	Cobalt, total	0.00280	mg/L
OR02	Compliance	R8	10/16/2024	Dissolved Oxygen	0.330	mg/L
OR02	Compliance	R8	10/16/2024	Fluoride, total	0.2 U	mg/L
OR02	Compliance	R8	10/16/2024	Lead, total	0.00290	mg/L
OR02	Compliance	R8	10/16/2024	Lithium, total	0.005 U	mg/L
OR02	Compliance	R8	10/16/2024	Mercury, total	0.00014 U	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR02	Compliance	R8	10/16/2024	Molybdenum, total	0.00240	mg/L
OR02	Compliance	R8	10/16/2024	Oxidation Reduction Potential	-23.8	mV
OR02	Compliance	R8	10/16/2024	pH (field)	6.6	SU
OR02	Compliance	R8	10/16/2024	Radium 226 + Radium 228, total	1.31	pCi/L
OR02	Compliance	R8	10/16/2024	Selenium, total	0.00074 U	mg/L
OR02	Compliance	R8	10/16/2024	Specific Conductance @ 25C (field)	1,935	micromhos/cm
OR02	Compliance	R8	10/16/2024	Sulfate, total	210	mg/L
OR02	Compliance	R8	10/16/2024	Temperature (Celsius)	15.0	degrees C
OR02	Compliance	R8	10/16/2024	Thallium, total	0.00038 U	mg/L
OR02	Compliance	R8	10/16/2024	Total Dissolved Solids	1,100	mg/L
OR02	Compliance	R8	10/16/2024	Turbidity, field	98.8	NTU
OR03D	Compliance	R8	10/17/2024	Antimony, total	0.00048 J	mg/L
OR03D	Compliance	R8	10/17/2024	Arsenic, total	0.00850	mg/L
OR03D	Compliance	R8	10/17/2024	Barium, total	0.210	mg/L
OR03D	Compliance	R8	10/17/2024	Beryllium, total	0.00100	mg/L
OR03D	Compliance	R8	10/17/2024	Boron, total	57.0	mg/L
OR03D	Compliance	R8	10/17/2024	Cadmium, total	0.00074 U	mg/L
OR03D	Compliance	R8	10/17/2024	Calcium, total	590	mg/L
OR03D	Compliance	R8	10/17/2024	Chloride, total	1,200	mg/L
OR03D	Compliance	R8	10/17/2024	Chromium, total	0.0420	mg/L
OR03D	Compliance	R8	10/17/2024	Cobalt, total	0.0200	mg/L
OR03D	Compliance	R8	10/17/2024	Dissolved Oxygen	0.610	mg/L
OR03D	Compliance	R8	10/17/2024	Fluoride, total	0.2 U	mg/L
OR03D	Compliance	R8	10/17/2024	Lead, total	0.0140	mg/L
OR03D	Compliance	R8	10/17/2024	Lithium, total	0.0760	mg/L
OR03D	Compliance	R8	10/17/2024	Mercury, total	0.00014 U	mg/L
OR03D	Compliance	R8	10/17/2024	Molybdenum, total	0.00670	mg/L
OR03D	Compliance	R8	10/17/2024	Oxidation Reduction Potential	-10.2	mV
OR03D	Compliance	R8	10/17/2024	pH (field)	6.5	SU
OR03D	Compliance	R8	10/17/2024	Radium 226 + Radium 228, total	3.95	pCi/L
OR03D	Compliance	R8	10/17/2024	Selenium, total	0.00170	mg/L
OR03D	Compliance	R8	10/17/2024	Specific Conductance @ 25C (field)	5,249	micromhos/cm
OR03D	Compliance	R8	10/17/2024	Sulfate, total	570	mg/L
OR03D	Compliance	R8	10/17/2024	Temperature (Celsius)	14.9	degrees C
OR03D	Compliance	R8	10/17/2024	Thallium, total	0.00038 U	mg/L
OR03D	Compliance	R8	10/17/2024	Total Dissolved Solids	3,600	mg/L
OR03D	Compliance	R8	10/17/2024	Turbidity, field	1,000	NTU
OR04D	Compliance	R8	10/17/2024	Antimony, total	0.00076 J	mg/L
OR04D	Compliance	R8	10/17/2024	Arsenic, total	0.00520	mg/L
OR04D	Compliance	R8	10/17/2024	Barium, total	0.0760	mg/L
OR04D	Compliance	R8	10/17/2024	Beryllium, total	0.00059 U	mg/L
OR04D	Compliance	R8	10/17/2024	Boron, total	98.0	mg/L
OR04D	Compliance	R8	10/17/2024	Cadmium, total	0.00074 U	mg/L
OR04D	Compliance	R8	10/17/2024	Calcium, total	730	mg/L
OR04D	Compliance	R8	10/17/2024	Chloride, total	1,300	mg/L
OR04D	Compliance	R8	10/17/2024	Chromium, total	0.0150	mg/L

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ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR04D	Compliance	R8	10/17/2024	Cobalt, total	0.00610	mg/L
OR04D	Compliance	R8	10/17/2024	Dissolved Oxygen	1.00	mg/L
OR04D	Compliance	R8	10/17/2024	Fluoride, total	0.2 U	mg/L
OR04D	Compliance	R8	10/17/2024	Lead, total	0.00630	mg/L
OR04D	Compliance	R8	10/17/2024	Lithium, total	0.0730	mg/L
OR04D	Compliance	R8	10/17/2024	Mercury, total	0.00014 U	mg/L
OR04D	Compliance	R8	10/17/2024	Molybdenum, total	0.00810	mg/L
OR04D	Compliance	R8	10/17/2024	Oxidation Reduction Potential	-30.5	mV
OR04D	Compliance	R8	10/17/2024	pH (field)	6.3	SU
OR04D	Compliance	R8	10/17/2024	Radium 226 + Radium 228, total	1.21	pCi/L
OR04D	Compliance	R8	10/17/2024	Selenium, total	0.00086 J	mg/L
OR04D	Compliance	R8	10/17/2024	Specific Conductance @ 25C (field)	6,198	micromhos/cm
OR04D	Compliance	R8	10/17/2024	Sulfate, total	1,100	mg/L
OR04D	Compliance	R8	10/17/2024	Temperature (Celsius)	13.9	degrees C
OR04D	Compliance	R8	10/17/2024	Thallium, total	0.00038 U	mg/L
OR04D	Compliance	R8	10/17/2024	Total Dissolved Solids	4,400 J	mg/L
OR04D	Compliance	R8	10/17/2024	Turbidity, field	435	NTU
OR06A	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OR06A	Compliance	R8	10/24/2024	Arsenic, total	0.0100	mg/L
OR06A	Compliance	R8	10/24/2024	Barium, total	0.0320	mg/L
OR06A	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OR06A	Compliance	R8	10/24/2024	Boron, total	150	mg/L
OR06A	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OR06A	Compliance	R8	10/24/2024	Calcium, total	720	mg/L
OR06A	Compliance	R8	10/24/2024	Chloride, total	780	mg/L
OR06A	Compliance	R8	10/24/2024	Chromium, total	0.0028 U	mg/L
OR06A	Compliance	R8	10/24/2024	Cobalt, total	0.0012 J	mg/L
OR06A	Compliance	R8	10/24/2024	Dissolved Oxygen	2.60	mg/L
OR06A	Compliance	R8	10/24/2024	Fluoride, total	0.203 J	mg/L
OR06A	Compliance	R8	10/24/2024	Lead, total	0.00093 J	mg/L
OR06A	Compliance	R8	10/24/2024	Lithium, total	0.011 J	mg/L
OR06A	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OR06A	Compliance	R8	10/24/2024	Molybdenum, total	0.230	mg/L
OR06A	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-60.9	mV
OR06A	Compliance	R8	10/24/2024	pH (field)	6.8	SU
OR06A	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	0.845	pCi/L
OR06A	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OR06A	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	3,082	micromhos/cm
OR06A	Compliance	R8	10/24/2024	Sulfate, total	1,100	mg/L
OR06A	Compliance	R8	10/24/2024	Temperature (Celsius)	14.1	degrees C
OR06A	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OR06A	Compliance	R8	10/24/2024	Total Dissolved Solids	3,700 J	mg/L
OR06A	Compliance	R8	10/24/2024	Turbidity, field	47.7	NTU
OR11	Compliance	R8	10/23/2024	Antimony, total	0.0018 J	mg/L
OR11	Compliance	R8	10/23/2024	Arsenic, total	0.0180	mg/L
OR11	Compliance	R8	10/23/2024	Barium, total	0.120	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR11	Compliance	R8	10/23/2024	Beryllium, total	0.00059 U	mg/L
OR11	Compliance	R8	10/23/2024	Boron, total	11.0	mg/L
OR11	Compliance	R8	10/23/2024	Cadmium, total	0.00074 U	mg/L
OR11	Compliance	R8	10/23/2024	Calcium, total	160	mg/L
OR11	Compliance	R8	10/23/2024	Chloride, total	89.0	mg/L
OR11	Compliance	R8	10/23/2024	Chromium, total	0.0120	mg/L
OR11	Compliance	R8	10/23/2024	Cobalt, total	0.00630	mg/L
OR11	Compliance	R8	10/23/2024	Dissolved Oxygen	2.00	mg/L
OR11	Compliance	R8	10/23/2024	Fluoride, total	0.22 J	mg/L
OR11	Compliance	R8	10/23/2024	Lead, total	0.0120	mg/L
OR11	Compliance	R8	10/23/2024	Lithium, total	0.0280	mg/L
OR11	Compliance	R8	10/23/2024	Mercury, total	0.00014 U	mg/L
OR11	Compliance	R8	10/23/2024	Molybdenum, total	0.0140	mg/L
OR11	Compliance	R8	10/23/2024	Oxidation Reduction Potential	-52.9	mV
OR11	Compliance	R8	10/23/2024	pH (field)	7.2	SU
OR11	Compliance	R8	10/23/2024	Radium 226 + Radium 228, total	0.558	pCi/L
OR11	Compliance	R8	10/23/2024	Selenium, total	0.00074 U	mg/L
OR11	Compliance	R8	10/23/2024	Specific Conductance @ 25C (field)	1,334	micromhos/cm
OR11	Compliance	R8	10/23/2024	Sulfate, total	170	mg/L
OR11	Compliance	R8	10/23/2024	Temperature (Celsius)	13.5	degrees C
OR11	Compliance	R8	10/23/2024	Thallium, total	0.00038 U	mg/L
OR11	Compliance	R8	10/23/2024	Total Dissolved Solids	840 J	mg/L
OR11	Compliance	R8	10/23/2024	Turbidity, field	223	NTU
OR13S	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OR13S	Compliance	R8	10/24/2024	Arsenic, total	0.00900	mg/L
OR13S	Compliance	R8	10/24/2024	Barium, total	0.0230 J+	mg/L
OR13S	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OR13S	Compliance	R8	10/24/2024	Boron, total	3.20	mg/L
OR13S	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OR13S	Compliance	R8	10/24/2024	Calcium, total	280	mg/L
OR13S	Compliance	R8	10/24/2024	Chloride, total	39.0	mg/L
OR13S	Compliance	R8	10/24/2024	Chromium, total	0.0028 U	mg/L
OR13S	Compliance	R8	10/24/2024	Cobalt, total	0.0017 J	mg/L
OR13S	Compliance	R8	10/24/2024	Dissolved Oxygen	0	mg/L
OR13S	Compliance	R8	10/24/2024	Fluoride, total	0.204 J	mg/L
OR13S	Compliance	R8	10/24/2024	Lead, total	0.00022 U	mg/L
OR13S	Compliance	R8	10/24/2024	Lithium, total	0.017 J	mg/L
OR13S	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OR13S	Compliance	R8	10/24/2024	Molybdenum, total	0.00760	mg/L
OR13S	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-28.0	mV
OR13S	Compliance	R8	10/24/2024	pH (field)	6.3	SU
OR13S	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	0.265	pCi/L
OR13S	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OR13S	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	1,920	micromhos/cm
OR13S	Compliance	R8	10/24/2024	Sulfate, total	720	mg/L
OR13S	Compliance	R8	10/24/2024	Temperature (Celsius)	16.0	degrees C

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2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR13S	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OR13S	Compliance	R8	10/24/2024	Total Dissolved Solids	1,500 J	mg/L
OR13S	Compliance	R8	10/24/2024	Turbidity, field	0	NTU
OR13D	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OR13D	Compliance	R8	10/24/2024	Arsenic, total	0.00440	mg/L
OR13D	Compliance	R8	10/24/2024	Barium, total	0.0280	mg/L
OR13D	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OR13D	Compliance	R8	10/24/2024	Boron, total	2.10	mg/L
OR13D	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OR13D	Compliance	R8	10/24/2024	Calcium, total	110	mg/L
OR13D	Compliance	R8	10/24/2024	Chloride, total	44.0	mg/L
OR13D	Compliance	R8	10/24/2024	Chromium, total	0.0028 U	mg/L
OR13D	Compliance	R8	10/24/2024	Cobalt, total	0.00048 U	mg/L
OR13D	Compliance	R8	10/24/2024	Dissolved Oxygen	0	mg/L
OR13D	Compliance	R8	10/24/2024	Fluoride, total	0.213 J	mg/L
OR13D	Compliance	R8	10/24/2024	Lead, total	0.00022 U	mg/L
OR13D	Compliance	R8	10/24/2024	Lithium, total	0.0270	mg/L
OR13D	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OR13D	Compliance	R8	10/24/2024	Molybdenum, total	0.00750	mg/L
OR13D	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-27.0	mV
OR13D	Compliance	R8	10/24/2024	pH (field)	6.2	SU
OR13D	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	0.834	pCi/L
OR13D	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OR13D	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	1,750	micromhos/cm
OR13D	Compliance	R8	10/24/2024	Sulfate, total	280	mg/L
OR13D	Compliance	R8	10/24/2024	Temperature (Celsius)	14.7	degrees C
OR13D	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OR13D	Compliance	R8	10/24/2024	Total Dissolved Solids	1,100 J	mg/L
OR13D	Compliance	R8	10/24/2024	Turbidity, field	0	NTU
OR14D	Compliance	R8	10/22/2024	Antimony, total	0.00043 U	mg/L
OR14D	Compliance	R8	10/22/2024	Arsenic, total	0.00220	mg/L
OR14D	Compliance	R8	10/22/2024	Barium, total	0.0210	mg/L
OR14D	Compliance	R8	10/22/2024	Beryllium, total	0.00059 U	mg/L
OR14D	Compliance	R8	10/22/2024	Boron, total	17.0	mg/L
OR14D	Compliance	R8	10/22/2024	Cadmium, total	0.00074 U	mg/L
OR14D	Compliance	R8	10/22/2024	Calcium, total	390	mg/L
OR14D	Compliance	R8	10/22/2024	Chloride, total	270	mg/L
OR14D	Compliance	R8	10/22/2024	Chromium, total	0.0028 U	mg/L
OR14D	Compliance	R8	10/22/2024	Cobalt, total	0.00049 J	mg/L
OR14D	Compliance	R8	10/22/2024	Dissolved Oxygen	0	mg/L
OR14D	Compliance	R8	10/22/2024	Fluoride, total	0.231 J	mg/L
OR14D	Compliance	R8	10/22/2024	Lead, total	0.00022 U	mg/L
OR14D	Compliance	R8	10/22/2024	Lithium, total	0.0200	mg/L
OR14D	Compliance	R8	10/22/2024	Mercury, total	0.00014 U	mg/L
OR14D	Compliance	R8	10/22/2024	Molybdenum, total	0.00470	mg/L
OR14D	Compliance	R8	10/22/2024	Oxidation Reduction Potential	-64.0	mV

TABLE 1.
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2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR14D	Compliance	R8	10/22/2024	pH (field)	7.5	SU
OR14D	Compliance	R8	10/22/2024	Radium 226 + Radium 228, total	1.12	pCi/L
OR14D	Compliance	R8	10/22/2024	Selenium, total	0.00074 U	mg/L
OR14D	Compliance	R8	10/22/2024	Specific Conductance @ 25C (field)	2,100	micromhos/cm
OR14D	Compliance	R8	10/22/2024	Sulfate, total	690	mg/L
OR14D	Compliance	R8	10/22/2024	Temperature (Celsius)	20.5	degrees C
OR14D	Compliance	R8	10/22/2024	Thallium, total	0.00038 U	mg/L
OR14D	Compliance	R8	10/22/2024	Total Dissolved Solids	2,000	mg/L
OR14D	Compliance	R8	10/22/2024	Turbidity, field	26.8	NTU
OR19	Compliance	R8	10/24/2024	Antimony, total	0.00043 U	mg/L
OR19	Compliance	R8	10/24/2024	Arsenic, total	0.00095 J	mg/L
OR19	Compliance	R8	10/24/2024	Barium, total	0.0190 J+	mg/L
OR19	Compliance	R8	10/24/2024	Beryllium, total	0.00059 U	mg/L
OR19	Compliance	R8	10/24/2024	Boron, total	12.0	mg/L
OR19	Compliance	R8	10/24/2024	Cadmium, total	0.00074 U	mg/L
OR19	Compliance	R8	10/24/2024	Calcium, total	280	mg/L
OR19	Compliance	R8	10/24/2024	Chloride, total	100	mg/L
OR19	Compliance	R8	10/24/2024	Chromium, total	0.0028 U	mg/L
OR19	Compliance	R8	10/24/2024	Cobalt, total	0.00071 J	mg/L
OR19	Compliance	R8	10/24/2024	Dissolved Oxygen	0	mg/L
OR19	Compliance	R8	10/24/2024	Fluoride, total	0.346	mg/L
OR19	Compliance	R8	10/24/2024	Lead, total	0.00120	mg/L
OR19	Compliance	R8	10/24/2024	Lithium, total	0.019 J	mg/L
OR19	Compliance	R8	10/24/2024	Mercury, total	0.00014 U	mg/L
OR19	Compliance	R8	10/24/2024	Molybdenum, total	0.00360	mg/L
OR19	Compliance	R8	10/24/2024	Oxidation Reduction Potential	-23.0	mV
OR19	Compliance	R8	10/24/2024	pH (field)	6.1	SU
OR19	Compliance	R8	10/24/2024	Radium 226 + Radium 228, total	1.66	pCi/L
OR19	Compliance	R8	10/24/2024	Selenium, total	0.00074 U	mg/L
OR19	Compliance	R8	10/24/2024	Specific Conductance @ 25C (field)	2,190	micromhos/cm
OR19	Compliance	R8	10/24/2024	Sulfate, total	750	mg/L
OR19	Compliance	R8	10/24/2024	Temperature (Celsius)	13.2	degrees C
OR19	Compliance	R8	10/24/2024	Thallium, total	0.00038 U	mg/L
OR19	Compliance	R8	10/24/2024	Total Dissolved Solids	1,800 J	mg/L
OR19	Compliance	R8	10/24/2024	Turbidity, field	133	NTU
OR20	Compliance	R8	10/23/2024	Antimony, total	0.00043 U	mg/L
OR20	Compliance	R8	10/23/2024	Arsenic, total	0.00340	mg/L
OR20	Compliance	R8	10/23/2024	Barium, total	0.0190	mg/L
OR20	Compliance	R8	10/23/2024	Beryllium, total	0.00059 U	mg/L
OR20	Compliance	R8	10/23/2024	Boron, total	35.0	mg/L
OR20	Compliance	R8	10/23/2024	Cadmium, total	0.00074 U	mg/L
OR20	Compliance	R8	10/23/2024	Calcium, total	240	mg/L
OR20	Compliance	R8	10/23/2024	Chloride, total	310	mg/L
OR20	Compliance	R8	10/23/2024	Chromium, total	0.0028 U	mg/L
OR20	Compliance	R8	10/23/2024	Cobalt, total	0.00067 J	mg/L
OR20	Compliance	R8	10/23/2024	Dissolved Oxygen	1.00	mg/L

TABLE 1.
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2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

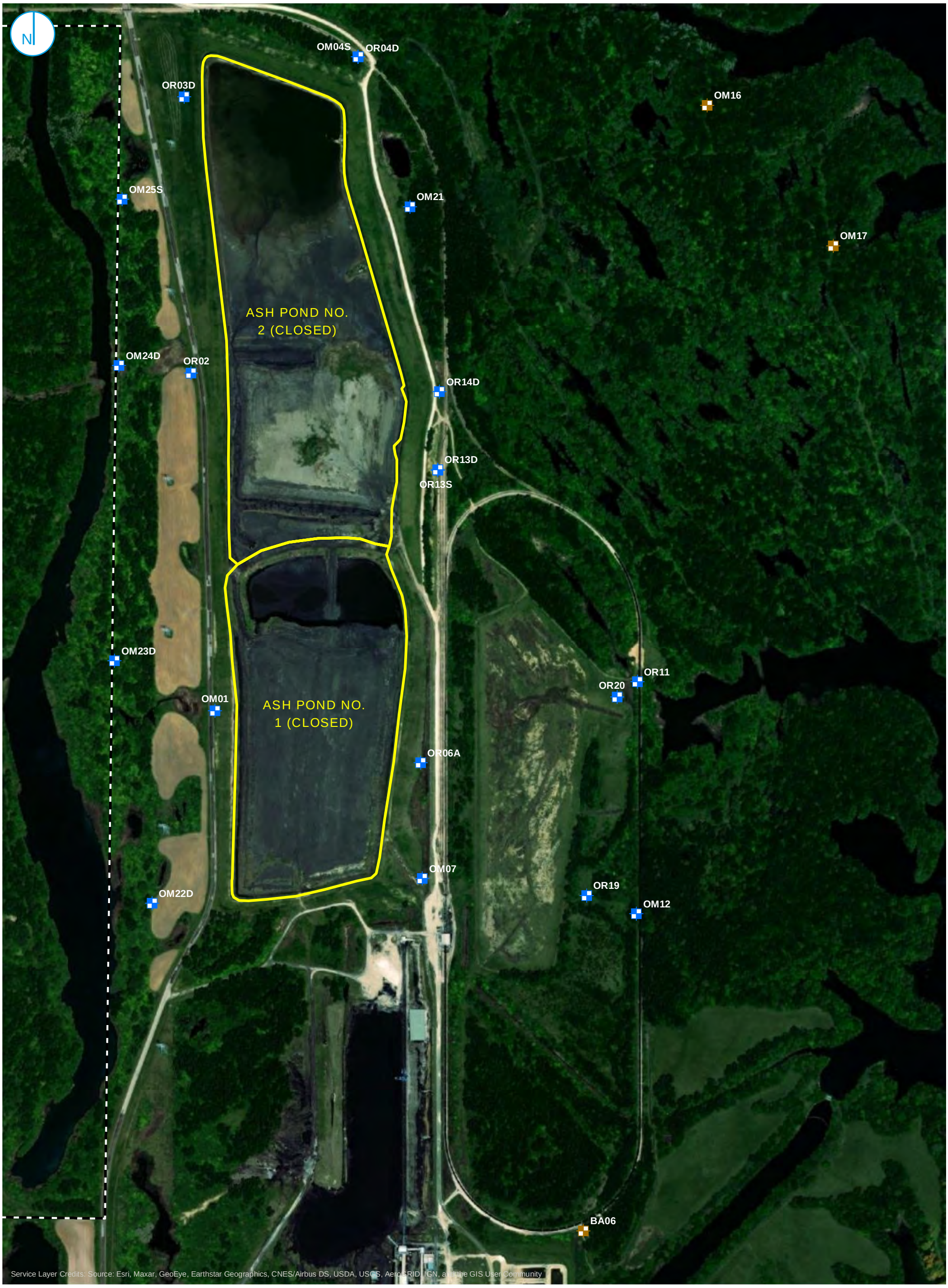
Well ID	Well Type	Event	Date	Parameter	Result	Unit
OR20	Compliance	R8	10/23/2024	Fluoride, total	0.427	mg/L
OR20	Compliance	R8	10/23/2024	Lead, total	0.00022 U	mg/L
OR20	Compliance	R8	10/23/2024	Lithium, total	0.0420	mg/L
OR20	Compliance	R8	10/23/2024	Mercury, total	0.00017 J	mg/L
OR20	Compliance	R8	10/23/2024	Molybdenum, total	0.0400	mg/L
OR20	Compliance	R8	10/23/2024	Oxidation Reduction Potential	-20.1	mV
OR20	Compliance	R8	10/23/2024	pH (field)	7.0	SU
OR20	Compliance	R8	10/23/2024	Radium 226 + Radium 228, total	0.452	pCi/L
OR20	Compliance	R8	10/23/2024	Selenium, total	0.00074 U	mg/L
OR20	Compliance	R8	10/23/2024	Specific Conductance @ 25C (field)	2,558	micromhos/cm
OR20	Compliance	R8	10/23/2024	Sulfate, total	350	mg/L
OR20	Compliance	R8	10/23/2024	Temperature (Celsius)	14.5	degrees C
OR20	Compliance	R8	10/23/2024	Thallium, total	0.00038 U	mg/L
OR20	Compliance	R8	10/23/2024	Total Dissolved Solids	1,700	mg/L
OR20	Compliance	R8	10/23/2024	Turbidity, field	23.1	NTU

Notes:
C = Celsius
cm = centimeter
Event IDs:
R8 = eighth round of sampling to establish background
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
Result Code (if applicable):
Result qualifiers as defined in the United States Environmental Protection Agency's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA 542-R-20-006. November 2020.:
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
SU = Standard Units

FIGURES

PROJECT: 169000XXXX | DATED: 10/6/2021 | DESIGNER: STOLZSD

Y:\Mapping\Projects\22\2285\MXD\845_Operating_Permit\Duck_Creek\AP12_GMP\Figure 2-1_Proposed 845 GW Monitoring Well Network.mxd



BACKGROUND WELL

COMPLIANCE WELL

REGULATED UNIT (SUBJECT UNIT)

PROPERTY BOUNDARY

0 300 600 Feet

MONITORING WELL LOCATION MAP

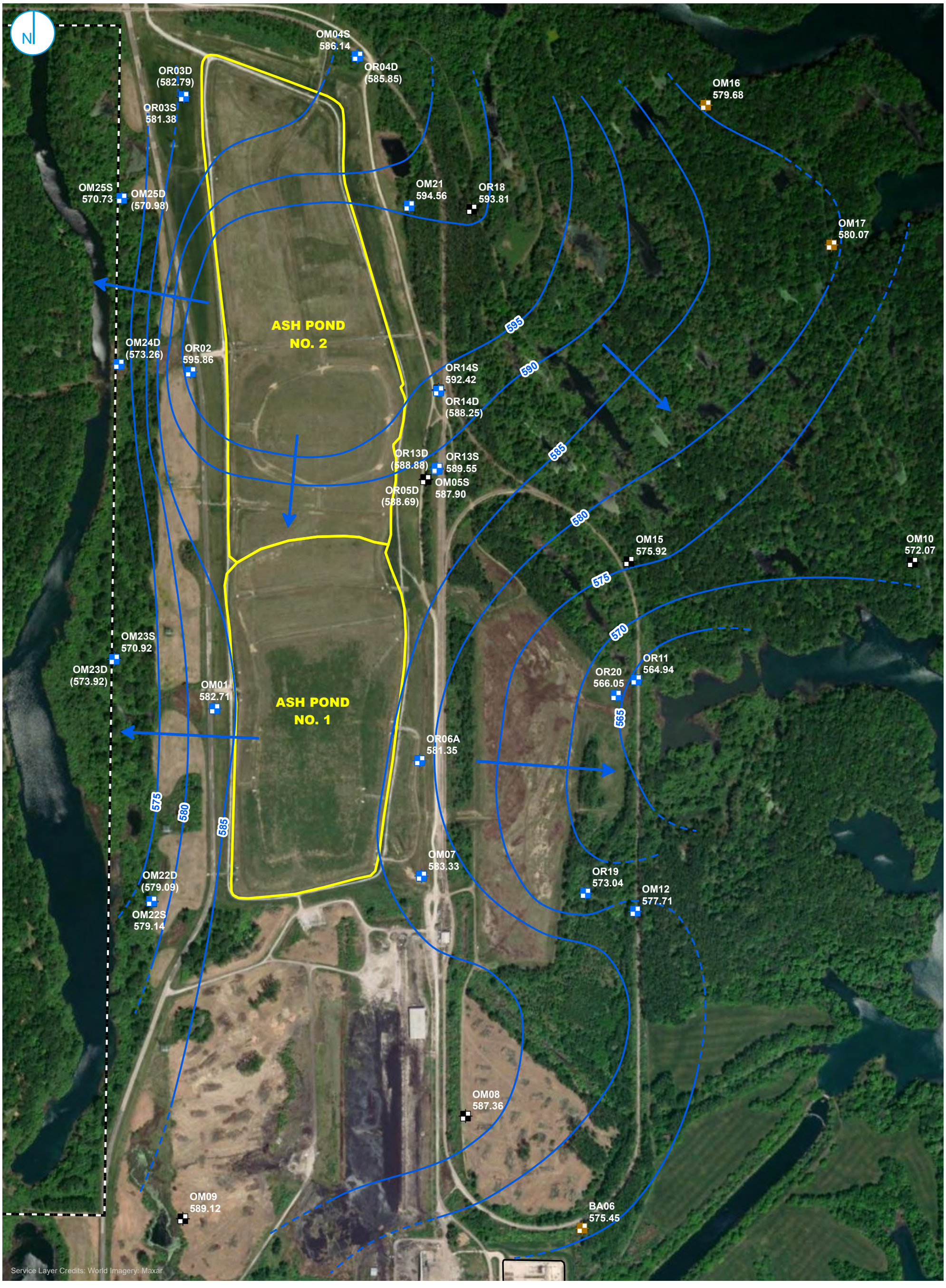
FIGURE 1

2024 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO. 1 AND ASH POND NO. 2

DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



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

0 300 600 Feet

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

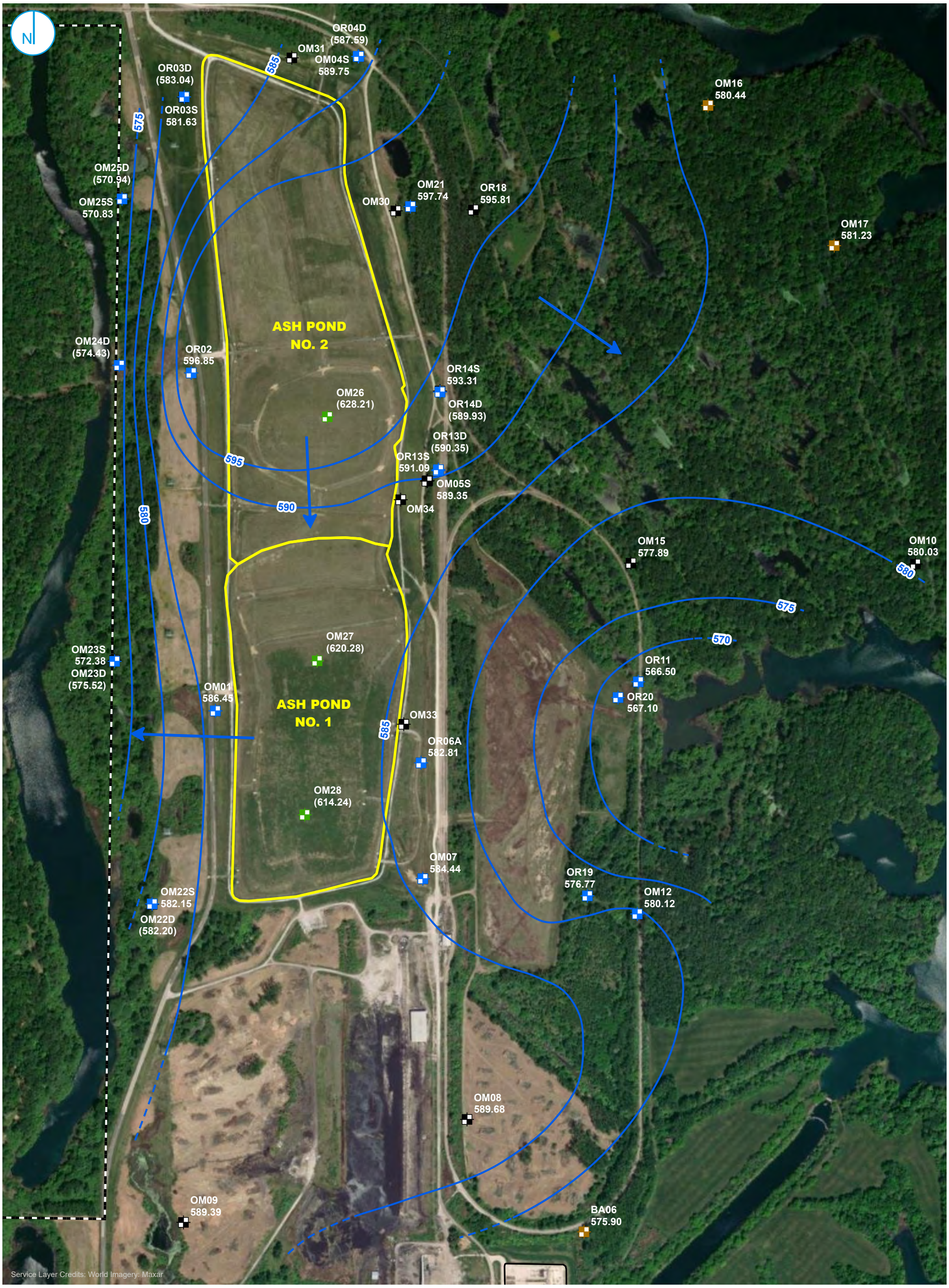
POTENTIOMETRIC SURFACE MAP JANUARY 17 AND 18, 2024

FIGURE 2

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO. 1 AND ASH POND NO. 2
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

RAMBOLL



COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
MONITORING WELL
PORE WATER WELL

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

0 300 600 Feet

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

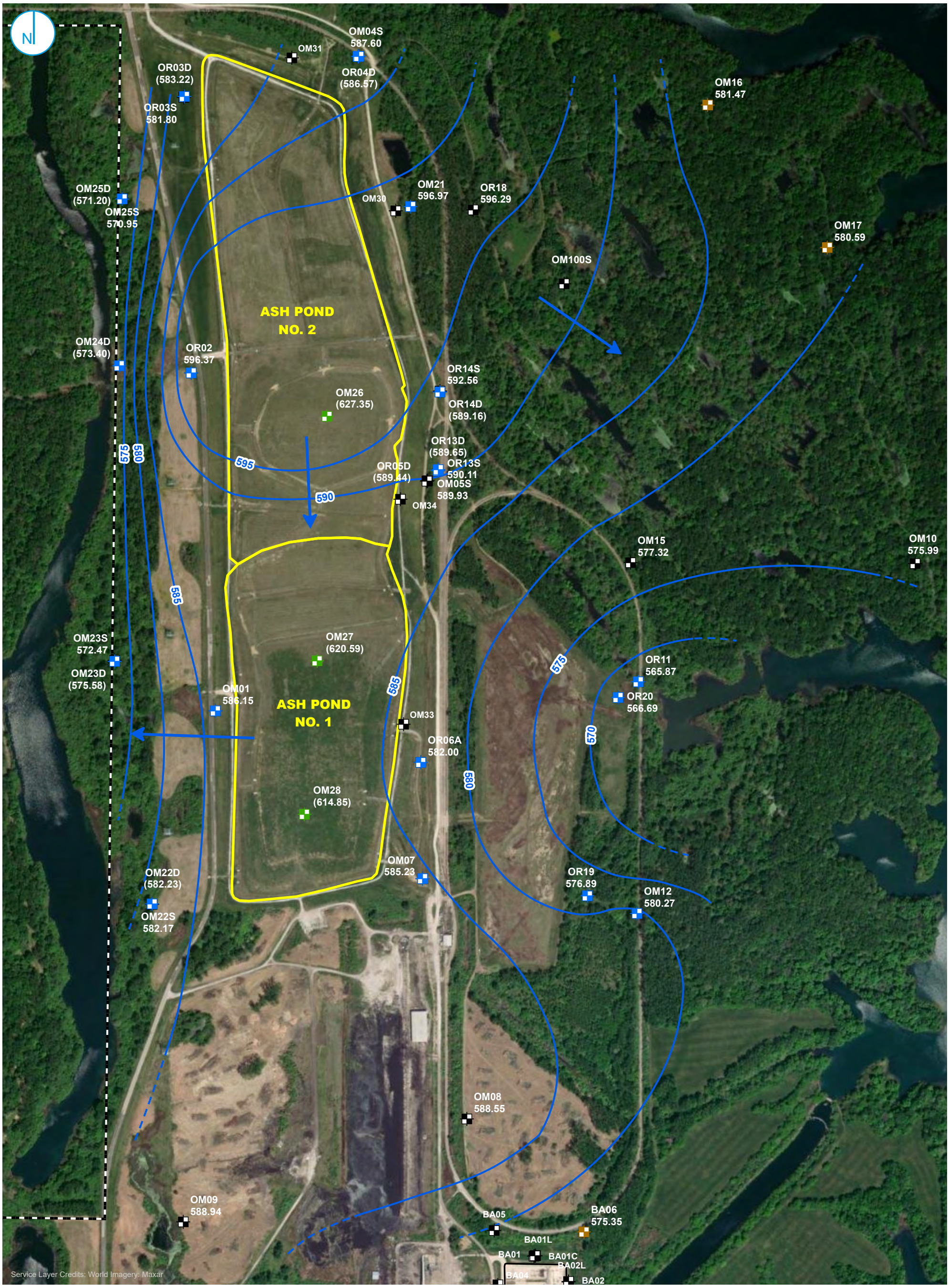
POTENTIOMETRIC SURFACE MAP
APRIL 12, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO.1 AND ASH POND NO.2
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
MONITORING WELL
PORE WATER WELL

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

0 300 600 Feet

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

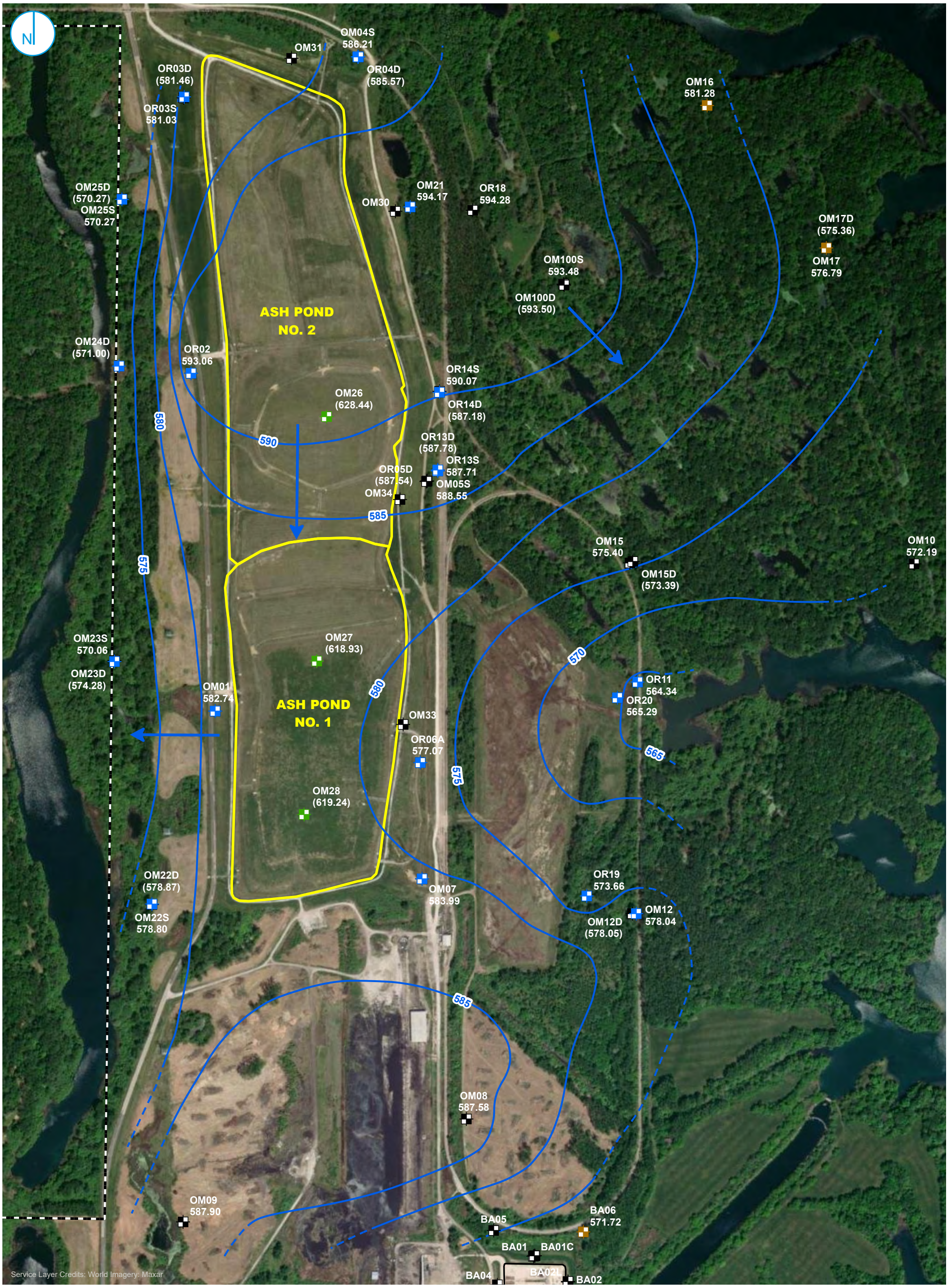
POTENTIOMETRIC SURFACE MAP
JULY 22, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO.1 AND ASH POND NO.2
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



COMPLIANCE MONITORING WELL
BACKGROUND MONITORING WELL
MONITORING WELL
PORE WATER WELL

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

0 300 600 Feet

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

POTENTIOMETRIC SURFACE MAP
OCTOBER 14, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO.1 AND ASH POND NO.2
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 5

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

ATTACHMENTS

ATTACHMENT A
GROUNDWATER ELEVATION DATA

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
BA06	Background	UA	01/17/2024	20.05	575.45
BA06	Background	UA	02/12/2024	[19.93]	[575.56]
BA06	Background	UA	03/12/2024	19.98	575.51
BA06	Background	UA	04/12/2024	19.60	575.90
BA06	Background	UA	05/22/2024	[19.75]	[575.74]
BA06	Background	UA	06/22/2024	21.62	573.87
BA06	Background	UA	07/22/2024	20.15	575.35
BA06	Background	UA	08/14/2024	20.30	575.36
BA06	Background	UA	09/14/2024	21.81	573.85
BA06	Background	UA	10/14/2024	23.95	571.72
BA06	Background	UA	11/07/2024	22.54	573.12
BA06	Background	UA	12/03/2024	23.57	572.10
OM01	Compliance	MS	01/17/2024	12.60	582.71
OM01	Compliance	MS	02/12/2024	[10.61]	[584.69]
OM01	Compliance	MS	03/12/2024	11.01	584.29
OM01	Compliance	MS	04/12/2024	8.86	586.45
OM01	Compliance	MS	05/22/2024	[8.33]	[586.97]
OM01	Compliance	MS	06/22/2024	10.43	584.87
OM01	Compliance	MS	07/22/2024	9.16	586.15
OM01	Compliance	MS	08/14/2024	9.67	585.44
OM01	Compliance	MS	09/14/2024	10.72	584.39
OM01	Compliance	MS	10/14/2024	12.38	582.74
OM01	Compliance	MS	11/07/2024	12.78	582.32
OM01	Compliance	MS	12/04/2024	13.10	582.02
OM04S	Compliance	MS	01/18/2024	21.10	586.14
OM04S	Compliance	MS	02/12/2024	[20.08]	[587.15]
OM04S	Compliance	MS	03/12/2024	20.21	587.02
OM04S	Compliance	MS	04/12/2024	17.49	589.75
OM04S	Compliance	MS	05/22/2024	[16.30]	[590.93]
OM04S	Compliance	MS	06/22/2024	18.83	588.40
OM04S	Compliance	MS	07/22/2024	19.64	587.60
OM04S	Compliance	MS	08/14/2024	19.51	587.39
OM04S	Compliance	MS	09/14/2024	19.73	587.17
OM04S	Compliance	MS	10/14/2024	20.70	586.21
OM04S	Compliance	MS	11/07/2024	20.80	586.10
OM04S	Compliance	MS	12/04/2024	21.52	585.39
OM07	Compliance	MS	01/18/2024	13.24	583.33
OM07	Compliance	MS	02/08/2024	12.40	584.17
OM07	Compliance	MS	03/13/2024	12.50	584.07
OM07	Compliance	MS	04/12/2024	12.13	584.44
OM07	Compliance	MS	05/10/2024	11.70	584.87
OM07	Compliance	MS	06/21/2024	11.70	584.87
OM07	Compliance	MS	07/22/2024	11.34	585.23
OM07	Compliance	MS	08/14/2024	11.25	585.16
OM07	Compliance	MS	09/14/2024	11.37	585.04
OM07	Compliance	MS	10/14/2024	12.43	583.99

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OM07	Compliance	MS	11/07/2024	12.65	583.76
OM07	Compliance	MS	12/04/2024	12.80	583.62
OM12	Compliance	MS	01/18/2024	17.73	577.71
OM12	Compliance	MS	02/08/2024	16.10	579.34
OM12	Compliance	MS	03/13/2024	16.70	578.74
OM12	Compliance	MS	04/12/2024	15.32	580.12
OM12	Compliance	MS	05/10/2024	14.40	581.04
OM12	Compliance	MS	06/21/2024	15.30	580.14
OM12	Compliance	MS	07/22/2024	15.17	580.27
OM12	Compliance	MS	08/14/2024	15.59	579.51
OM12	Compliance	MS	09/14/2024	15.99	579.11
OM12	Compliance	MS	10/14/2024	17.07	578.04
OM12	Compliance	MS	11/07/2024	17.83	577.27
OM12	Compliance	MS	12/03/2024	18.27	576.84
OM16	Background	MS	01/17/2024	28.25	579.68
OM16	Background	MS	02/12/2024	[28.13]	[579.79]
OM16	Background	MS	03/12/2024	27.97	579.95
OM16	Background	MS	04/12/2024	27.49	580.44
OM16	Background	MS	05/22/2024	[25.00]	[582.92]
OM16	Background	MS	06/22/2024	DM[6]	
OM16	Background	MS	07/22/2024	26.46	581.47
OM16	Background	MS	08/14/2024	26.04	582.85
OM16	Background	MS	09/14/2024	26.45	582.44
OM16	Background	MS	10/14/2024	27.62	581.28
OM16	Background	MS	11/07/2024	28.14	580.75
OM16	Background	MS	12/03/2024	28.76	580.14
OM17	Background	MS	01/17/2024	11.72	580.07
OM17	Background	MS	02/12/2024	[14.05]	[577.73]
OM17	Background	MS	03/12/2024	11.18	580.60
OM17	Background	MS	04/12/2024	10.56	581.23
OM17	Background	MS	05/22/2024	[10.46]	[581.32]
OM17	Background	MS	06/22/2024	13.42	578.36
OM17	Background	MS	07/22/2024	11.20	580.59
OM17	Background	MS	08/14/2024	12.58	579.09
OM17	Background	MS	09/14/2024	13.82	577.85
OM17	Background	MS	10/14/2024	14.89	576.79
OM17	Background	MS	11/07/2024	11.25	580.42
OM17	Background	MS	12/03/2024	14.78	576.90
OM21	Compliance	MS	01/18/2024	11.88	594.56
OM21	Compliance	MS	02/12/2024	[10.59]	[595.84]
OM21	Compliance	MS	03/12/2024	10.09	596.34
OM21	Compliance	MS	04/12/2024	8.70	597.74
OM21	Compliance	MS	05/22/2024	[8.03]	[598.40]
OM21	Compliance	MS	06/22/2024	8.87	597.56
OM21	Compliance	MS	07/22/2024	9.47	596.97
OM21	Compliance	MS	08/14/2024	9.85	596.44

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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OM21	Compliance	MS	09/14/2024	10.72	595.57
OM21	Compliance	MS	10/14/2024	12.13	594.17
OM21	Compliance	MS	11/07/2024	12.71	593.58
OM21	Compliance	MS	12/04/2024	12.60	593.70
OM22D	Compliance	MS	01/17/2024	19.94	579.09
OM22D	Compliance	MS	02/12/2024	[18.01]	[581.01]
OM22D	Compliance	MS	03/12/2024	18.45	580.57
OM22D	Compliance	MS	04/12/2024	16.83	582.20
OM22D	Compliance	MS	05/22/2024	[16.36]	[582.66]
OM22D	Compliance	MS	06/22/2024	18.05	580.97
OM22D	Compliance	MS	07/22/2024	16.80	582.23
OM22D	Compliance	MS	08/14/2024	17.23	581.51
OM22D	Compliance	MS	09/14/2024	18.18	580.56
OM22D	Compliance	MS	10/14/2024	19.88	578.87
OM22D	Compliance	MS	11/07/2024	19.85	578.89
OM22D	Compliance	MS	12/03/2024	20.15	578.60
OM23D	Compliance	MS	01/17/2024	39.30	573.92
OM23D	Compliance	MS	02/12/2024	[38.45]	[574.76]
OM23D	Compliance	MS	03/12/2024	38.37	574.84
OM23D	Compliance	MS	04/12/2024	37.70	575.52
OM23D	Compliance	MS	05/22/2024	[36.83]	[576.38]
OM23D	Compliance	MS	06/22/2024	37.67	575.54
OM23D	Compliance	MS	07/22/2024	37.64	575.58
OM23D	Compliance	MS	08/14/2024	37.41	575.65
OM23D	Compliance	MS	09/14/2024	37.72	575.34
OM23D	Compliance	MS	10/14/2024	38.79	574.28
OM23D	Compliance	MS	11/07/2024	38.98	574.08
OM23D	Compliance	MS	12/03/2024	39.36	573.71
OM24D	Compliance	MS	01/17/2024	3.63	573.26
OM24D	Compliance	MS	02/12/2024	[3.03]	[573.85]
OM24D	Compliance	MS	03/12/2024	2.82	574.06
OM24D	Compliance	MS	04/12/2024	2.46	574.43
OM24D	Compliance	MS	05/22/2024	[3.06]	[573.82]
OM24D	Compliance	MS	06/22/2024	4.67	572.21
OM24D	Compliance	MS	07/22/2024	3.49	573.40
OM24D	Compliance	MS	08/14/2024	4.10	572.72
OM24D	Compliance	MS	09/14/2024	4.98	571.85
OM24D	Compliance	MS	10/14/2024	5.83	571.00
OM24D	Compliance	MS	11/07/2024	4.96	571.86
OM24D	Compliance	MS	12/03/2024	4.98	571.85
OM25S	Compliance	MS	01/17/2024	58.19	570.73
OM25S	Compliance	MS	02/12/2024	[58.06]	[570.85]
OM25S	Compliance	MS	03/12/2024	58.00	570.91
OM25S	Compliance	MS	04/12/2024	58.09	570.83
OM25S	Compliance	MS	05/22/2024	[57.85]	[571.06]
OM25S	Compliance	MS	06/22/2024	57.96	570.95

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GROUNDWATER ELEVATION DATA
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OM25S	Compliance	MS	07/22/2024	57.97	570.95
OM25S	Compliance	MS	08/14/2024	57.83	571.06
OM25S	Compliance	MS	09/14/2024	58.01	570.88
OM25S	Compliance	MS	10/14/2024	58.63	570.27
OM25S	Compliance	MS	11/07/2024	58.34	570.55
OM25S	Compliance	MS	12/03/2024	58.62	570.28
OR02	Compliance	MS	01/17/2024	5.42	595.86
OR02	Compliance	MS	02/12/2024	[4.70]	[596.57]
OR02	Compliance	MS	03/12/2024	4.81	596.46
OR02	Compliance	MS	04/12/2024	4.43	596.85
OR02	Compliance	MS	05/22/2024	[4.82]	[596.45]
OR02	Compliance	MS	06/22/2024	6.32	594.95
OR02	Compliance	MS	07/22/2024	4.91	596.37
OR02	Compliance	MS	08/14/2024	6.08	595.21
OR02	Compliance	MS	09/14/2024	7.37	593.92
OR02	Compliance	MS	10/14/2024	8.24	593.06
OR02	Compliance	MS	11/07/2024	6.49	594.81
OR02	Compliance	MS	12/04/2024	7.11	594.19
OR03D	Compliance	MS	01/18/2024	45.13	582.79
OR03D	Compliance	MS	02/12/2024	[44.96]	[582.95]
OR03D	Compliance	MS	03/12/2024	44.87	583.04
OR03D	Compliance	MS	04/12/2024	44.88	583.04
OR03D	Compliance	MS	05/22/2024	[44.68]	[583.23]
OR03D	Compliance	MS	06/22/2024	44.70	583.21
OR03D	Compliance	MS	07/22/2024	44.70	583.22
OR03D	Compliance	MS	08/14/2024	44.85	581.97
OR03D	Compliance	MS	09/14/2024	44.96	581.86
OR03D	Compliance	MS	10/14/2024	45.37	581.46
OR03D	Compliance	MS	11/07/2024	45.59	581.23
OR03D	Compliance	MS	12/04/2024	44.94	581.89
OR04D	Compliance	MS	01/18/2024	21.81	585.85
OR04D	Compliance	MS	02/12/2024	[20.99]	[586.66]
OR04D	Compliance	MS	03/12/2024	21.22	586.43
OR04D	Compliance	MS	04/12/2024	20.07	587.59
OR04D	Compliance	MS	05/22/2024	[19.71]	[587.94]
OR04D	Compliance	MS	06/22/2024	20.85	586.80
OR04D	Compliance	MS	07/22/2024	21.09	586.57
OR04D	Compliance	MS	08/14/2024	20.99	586.41
OR04D	Compliance	MS	09/14/2024	21.15	586.25
OR04D	Compliance	MS	10/14/2024	21.84	585.57
OR04D	Compliance	MS	11/07/2024	23.48	583.92
OR04D	Compliance	MS	12/04/2024	22.21	585.20
OR06A	Compliance	MS	01/18/2024	14.10	581.35
OR06A	Compliance	MS	02/12/2024	[13.56]	[581.88]
OR06A	Compliance	MS	03/12/2024	13.28	582.16
OR06A	Compliance	MS	04/12/2024	12.64	582.81

ATTACHMENT A
GROUNDWATER ELEVATION DATA
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DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OR06A	Compliance	MS	05/22/2024	[12.15]	[583.29]
OR06A	Compliance	MS	06/22/2024	13.10	582.34
OR06A	Compliance	MS	07/22/2024	13.45	582.00
OR06A	Compliance	MS	08/14/2024	13.66	578.49
OR06A	Compliance	MS	09/14/2024	14.12	578.03
OR06A	Compliance	MS	10/14/2024	15.09	577.07
OR06A	Compliance	MS	11/07/2024	15.36	576.79
OR06A	Compliance	MS	12/04/2024	14.44	577.72
OR11	Compliance	MS	01/18/2024	31.24	564.94
OR11	Compliance	MS	02/12/2024	[30.74]	[565.43]
OR11	Compliance	MS	03/12/2024	30.45	565.72
OR11	Compliance	MS	04/12/2024	29.68	566.50
OR11	Compliance	MS	05/22/2024	[29.53]	[566.64]
OR11	Compliance	MS	06/22/2024	31.07	565.10
OR11	Compliance	MS	07/22/2024	30.31	565.87
OR11	Compliance	MS	08/14/2024	31.19	565.34
OR11	Compliance	MS	09/14/2024	31.82	564.71
OR11	Compliance	MS	10/14/2024	32.20	564.34
OR11	Compliance	MS	11/07/2024	32.55	563.98
OR11	Compliance	MS	12/03/2024	32.28	564.26
OR13S	Compliance	MS	01/18/2024	12.97	589.55
OR13S	Compliance	MS	02/12/2024	[12.34]	[590.17]
OR13S	Compliance	MS	03/12/2024	12.10	590.41
OR13S	Compliance	MS	04/12/2024	11.43	591.09
OR13S	Compliance	MS	05/22/2024	[11.63]	[590.88]
OR13S	Compliance	MS	06/22/2024	12.95	589.56
OR13S	Compliance	MS	07/22/2024	12.41	590.11
OR13S	Compliance	MS	08/14/2024	13.05	589.37
OR13S	Compliance	MS	09/14/2024	13.86	588.55
OR13S	Compliance	MS	10/14/2024	14.72	587.71
OR13S	Compliance	MS	11/07/2024	14.92	587.50
OR13S	Compliance	MS	12/04/2024	14.84	587.59
OR13D	Compliance	MS	01/18/2024	13.62	588.88
OR13D	Compliance	MS	02/12/2024	[12.94]	[589.55]
OR13D	Compliance	MS	03/12/2024	12.76	589.73
OR13D	Compliance	MS	04/12/2024	12.15	590.35
OR13D	Compliance	MS	05/22/2024	[11.84]	[590.65]
OR13D	Compliance	MS	06/22/2024	12.75	589.74
OR13D	Compliance	MS	07/22/2024	12.85	589.65
OR13D	Compliance	MS	08/14/2024	13.10	589.27
OR13D	Compliance	MS	09/14/2024	13.61	588.76
OR13D	Compliance	MS	10/14/2024	14.60	587.78
OR13D	Compliance	MS	11/07/2024	14.89	587.48
OR13D	Compliance	MS	12/04/2024	14.62	587.76
OR14D	Compliance	MS	01/18/2024	10.48	588.25
OR14D	Compliance	MS	02/12/2024	[9.68]	[589.04]

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK POWER PLANT
ASH POND NO. 1 AND ASH POND NO. 2
CANTON, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
OR14D	Compliance	MS	03/12/2024	9.39	589.33
OR14D	Compliance	MS	04/12/2024	8.80	589.93
OR14D	Compliance	MS	05/22/2024	[8.61]	[590.11]
OR14D	Compliance	MS	06/22/2024	9.73	588.99
OR14D	Compliance	MS	07/22/2024	9.57	589.16
OR14D	Compliance	MS	08/14/2024	10.08	589.07
OR14D	Compliance	MS	09/14/2024	10.88	588.27
OR14D	Compliance	MS	10/14/2024	11.98	587.18
OR14D	Compliance	MS	11/07/2024	11.88	587.27
OR14D	Compliance	MS	12/04/2024	11.21	587.95
OR19	Compliance	MS	01/18/2024	24.66	573.04
OR19	Compliance	MS	02/12/2024	[22.42]	[575.27]
OR19	Compliance	MS	03/12/2024	22.61	575.08
OR19	Compliance	MS	04/12/2024	20.93	576.77
OR19	Compliance	MS	05/22/2024	[19.15]	[578.54]
OR19	Compliance	MS	06/22/2024	20.80	576.89
OR19	Compliance	MS	07/22/2024	20.81	576.89
OR19	Compliance	MS	08/14/2024	21.68	575.95
OR19	Compliance	MS	09/14/2024	22.45	575.18
OR19	Compliance	MS	10/14/2024	23.98	573.66
OR19	Compliance	MS	11/07/2024	23.72	573.92
OR19	Compliance	MS	12/03/2024	24.32	573.32
OR20	Compliance	MS	01/18/2024	21.49	566.05
OR20	Compliance	MS	02/12/2024	[21.02]	[566.51]
OR20	Compliance	MS	03/12/2024	20.97	566.56
OR20	Compliance	MS	04/12/2024	20.44	567.10
OR20	Compliance	MS	05/22/2024	[20.07]	[567.46]
OR20	Compliance	MS	06/22/2024	21.16	566.37
OR20	Compliance	MS	07/22/2024	20.85	566.69
OR20	Compliance	MS	08/14/2024	21.28	566.36
OR20	Compliance	MS	09/14/2024	21.79	565.85
OR20	Compliance	MS	10/14/2024	22.36	565.29
OR20	Compliance	MS	11/07/2024	22.65	564.99
OR20	Compliance	MS	12/03/2024	22.49	565.16

Notes:
BMP = below measuring point
Bracketing [ ] indicates that the measurement was obtained outside of the episodic depth to groundwater measurements time frame.
Depth to Groundwater/Groundwater Elevation Code (if applicable):
DM[1] = Depth to water was not measured.
DM[2] = Depth to water was not measured because water was above or below the staff gage markings.
DM[3] = Depth to water was not measured because the location was inaccessible.
DM[4] = Depth to water was not measured because water level was below the top of the pump.
DM[5] = Depth to water was not measured because water level was above the top of casing (artesian well).
DM[6] = Depth to water was not measured because of damage to the well.
DM[7] = Depth to water was not measured due to required pressure transducer maintenance.
DM[8] = Lab provided groundwater elevation data and not depth to water.
NAVD88 = North American Vertical Datum of 1988
Monitored Unit Abbreviations:
MS = mine spoils
UA = uppermost aquifer

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ATTACHMENT B
LABORATORY ANALYTICAL REPORTS AND FIELD DATA SHEETS

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

March 17, 2024

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

Dear Daryl Johnson:

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

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

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

Sincerely,

Diane Billings
Project Manager

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

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HA03433

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

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Peoria, IL 61615
(800)752-6651

Work Order HA03720

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

Pace Analytical Services, LLC
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Peoria, IL 61615
(800)752-6651

Work Order HA03925

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

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Work Order HA04058

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

Pace Analytical Services, LLC
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Peoria, IL 61615
(800)752-6651

Work Order HA04272

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

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Work Order HB00518

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

Pace Analytical Services, LLC
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Work Order HB00819

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

Pace Analytical Services, LLC
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Peoria, IL 61615
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Work Order HB01992

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

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

ANALYTICAL RESULTS

Sample: HA03433-06
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 01/24/24 14:35
Received: 01/24/24 16:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	420	mg/L		01/25/24 11:06	100	100	01/25/24 11:06	CRD	EPA 300.0 REV 2.1
Sulfate	720	mg/L		01/25/24 11:06	100	100	01/25/24 11:06	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.33	Feet		01/24/24 14:35	1		01/24/24 14:35	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		01/24/24 14:35	1		01/24/24 14:35	FIELD	Field*
Oxidation Reduction Potential	28.0	mV		01/24/24 14:35	1	-500	01/24/24 14:35	FIELD	Field*
pH, Field Measured	6.76	pH Units		01/24/24 14:35	1		01/24/24 14:35	FIELD	Field*
Specific Conductance, Field Measured	2360	umhos/cm		01/24/24 14:35	1		01/24/24 14:35	FIELD	Field*
Temperature, Field Measured	11.0	°C		01/24/24 14:35	1		01/24/24 14:35	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/24/24 14:35	1	0.00	01/24/24 14:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		02/02/24 10:08	1	10	02/02/24 10:08	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/02/24 10:08	1	10	02/02/24 10:08	CPS	SM 2320B 1997*
Fluoride	0.259	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:32	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2400	mg/L	M	01/29/24 10:45	1	26	01/29/24 11:52	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/29/24 08:00	5	3.0	02/06/24 11:50	TJJ	EPA 6020A
Arsenic	13	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Barium	130	ug/L		01/29/24 08:00	100	20	02/05/24 14:53	TJJ	EPA 6020A
Beryllium	1.2	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Boron	24000	ug/L		01/29/24 08:00	100	200	02/05/24 14:53	TJJ	EPA 6020A
Cadmium	1.4	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Calcium	460	mg/L		01/29/24 08:00	5	0.20	02/06/24 11:50	TJJ	EPA 6020A
Chromium	32	ug/L		01/29/24 08:00	5	4.0	02/06/24 11:50	TJJ	EPA 6020A
Cobalt	18	ug/L		01/29/24 08:00	5	2.0	02/06/24 11:50	TJJ	EPA 6020A
Lead	21	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Magnesium	150	mg/L		01/29/24 08:00	100	2.0	02/05/24 14:53	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/29/24 08:00	5	0.20	02/06/24 12:33	TJJ	EPA 6020A
Molybdenum	8.7	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Potassium	6.8	mg/L		01/29/24 08:00	100	2.0	02/05/24 14:53	TJJ	EPA 6020A

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

ANALYTICAL RESULTS

Sample: HA03433-06
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 01/24/24 14:35
Received: 01/24/24 16:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	2.7	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Sodium	57	mg/L		01/29/24 08:00	100	2.0	02/05/24 14:53	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:50	TJJ	EPA 6020A
Lithium	0.047	mg/L		01/29/24 08:00	1	0.020	01/31/24 13:23	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03433-07
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 01/24/24 12:54
Received: 01/24/24 16:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1300	mg/L		01/25/24 11:43	250	250	01/25/24 11:43	CRD	EPA 300.0 REV 2.1
Sulfate	1200	mg/L		01/25/24 11:43	250	250	01/25/24 11:43	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.85	Feet		01/24/24 12:54	1		01/24/24 12:54	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		01/24/24 12:54	1		01/24/24 12:54	FIELD	Field*
Oxidation Reduction Potential	21.0	mV		01/24/24 12:54	1	-500	01/24/24 12:54	FIELD	Field*
pH, Field Measured	6.56	pH Units		01/24/24 12:54	1		01/24/24 12:54	FIELD	Field*
Specific Conductance, Field Measured	5310	umhos/cm		01/24/24 12:54	1		01/24/24 12:54	FIELD	Field*
Temperature, Field Measured	11.3	°C		01/24/24 12:54	1		01/24/24 12:54	FIELD	Field*
Turbidity, Field Measured	596	NTU		01/24/24 12:54	1	0.00	01/24/24 12:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		02/02/24 10:08	1	10	02/02/24 10:08	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/02/24 10:08	1	10	02/02/24 10:08	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:32	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4700	mg/L		01/29/24 10:45	1	26	01/29/24 11:52	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/29/24 08:00	5	3.0	02/06/24 11:54	TJJ	EPA 6020A
Arsenic	3.8	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Barium	41	ug/L		01/29/24 08:00	100	20	02/05/24 14:57	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Boron	100000	ug/L		01/29/24 08:00	100	200	02/05/24 14:57	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Calcium	740	mg/L		01/29/24 08:00	100	4.0	02/06/24 15:07	TJJ	EPA 6020A
Chromium	6.1	ug/L		01/29/24 08:00	5	4.0	02/06/24 11:54	TJJ	EPA 6020A
Cobalt	3.4	ug/L		01/29/24 08:00	5	2.0	02/06/24 11:54	TJJ	EPA 6020A
Lead	2.9	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Magnesium	290	mg/L		01/29/24 08:00	100	2.0	02/05/24 14:57	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/29/24 08:00	5	0.20	02/06/24 11:54	TJJ	EPA 6020A
Molybdenum	4.2	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Potassium	13	mg/L		01/29/24 08:00	100	2.0	02/05/24 14:57	TJJ	EPA 6020A

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

ANALYTICAL RESULTS

Sample: HA03433-07
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 01/24/24 12:54
Received: 01/24/24 16:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Sodium	240	mg/L		01/29/24 08:00	100	2.0	02/05/24 14:57	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:54	TJJ	EPA 6020A
Lithium	0.067	mg/L		01/29/24 08:00	1	0.020	01/31/24 13:24	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03433-08
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 01/24/24 12:10
Received: 01/24/24 16:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	17	mg/L		01/25/24 12:19	5	5.0	01/25/24 12:19	CRD	EPA 300.0 REV 2.1
Sulfate	150	mg/L		01/25/24 12:37	25	25	01/25/24 12:37	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.19	Feet		01/24/24 12:10	1		01/24/24 12:10	FIELD	Field*
Dissolved oxygen, Field	3.2	mg/L		01/24/24 12:10	1		01/24/24 12:10	FIELD	Field*
Oxidation Reduction Potential	239	mV		01/24/24 12:10	1	-500	01/24/24 12:10	FIELD	Field*
pH, Field Measured	6.57	pH Units		01/24/24 12:10	1		01/24/24 12:10	FIELD	Field*
Specific Conductance, Field Measured	1100	umhos/cm		01/24/24 12:10	1		01/24/24 12:10	FIELD	Field*
Temperature, Field Measured	8.8	°C		01/24/24 12:10	1		01/24/24 12:10	FIELD	Field*
Turbidity, Field Measured	6.10	NTU		01/24/24 12:10	1	0.00	01/24/24 12:10	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		02/02/24 10:08	1	10	02/02/24 10:08	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/02/24 10:08	1	10	02/02/24 10:08	CPS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:33	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	820	mg/L		01/29/24 10:45	1	26	01/29/24 11:52	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/29/24 08:00	5	3.0	02/06/24 11:58	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/05/24 15:01	TJJ	EPA 6020A
Barium	42	ug/L		01/29/24 08:00	5	1.0	02/05/24 15:01	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/05/24 15:01	TJJ	EPA 6020A
Boron	180	ug/L		01/29/24 08:00	5	10	02/05/24 15:01	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/05/24 15:01	TJJ	EPA 6020A
Calcium	140	mg/L		01/29/24 08:00	5	0.20	02/06/24 11:58	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		01/29/24 08:00	5	4.0	02/05/24 15:01	TJJ	EPA 6020A
Cobalt	3.7	ug/L		01/29/24 08:00	5	2.0	02/05/24 15:01	TJJ	EPA 6020A
Lead	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:58	TJJ	EPA 6020A
Magnesium	70	mg/L		01/29/24 08:00	5	0.10	02/05/24 15:01	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/29/24 08:00	5	0.20	02/06/24 11:58	TJJ	EPA 6020A
Molybdenum	1.4	ug/L		01/29/24 08:00	5	1.0	02/05/24 15:01	TJJ	EPA 6020A
Potassium	0.81	mg/L		01/29/24 08:00	5	0.10	02/05/24 15:01	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03433-08
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 01/24/24 12:10
Received: 01/24/24 16:15

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.1	ug/L		01/29/24 08:00	5	1.0	02/05/24 15:01	TJJ	EPA 6020A
Sodium	15	mg/L		01/29/24 08:00	5	0.10	02/05/24 15:01	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/29/24 08:00	5	1.0	02/06/24 11:58	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		01/29/24 08:00	1	0.020	01/31/24 13:25	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03720-10
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 01/25/24 14:51
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1400	mg/L	Q4	01/26/24 13:26	250	250	01/26/24 13:26	TMS	EPA 300.0 REV 2.1
Sulfate	680	mg/L	Q4	01/26/24 13:26	250	250	01/26/24 13:26	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	44.97	Feet		01/25/24 14:51	1		01/25/24 14:51	FIELD	Field*
Dissolved oxygen, Field	0.57	mg/L		01/25/24 14:51	1		01/25/24 14:51	FIELD	Field*
Oxidation Reduction Potential	-13.0	mV		01/25/24 14:51	1	-500	01/25/24 14:51	FIELD	Field*
pH, Field Measured	6.46	pH Units		01/25/24 14:51	1		01/25/24 14:51	FIELD	Field*
Specific Conductance, Field Measured	3590	umhos/cm		01/25/24 14:51	1		01/25/24 14:51	FIELD	Field*
Temperature, Field Measured	11.7	°C		01/25/24 14:51	1		01/25/24 14:51	FIELD	Field*
Turbidity, Field Measured	369	NTU		01/25/24 14:51	1	0.00	01/25/24 14:51	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:35	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4200	mg/L		01/29/24 13:26	1	26	01/29/24 14:18	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/30/24 07:30	5	3.0	02/06/24 14:36	TJJ	EPA 6020A
Arsenic	6.6	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Barium	130	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Boron	55000	ug/L		01/30/24 07:30	100	200	02/07/24 14:59	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Calcium	550	mg/L		01/30/24 07:30	100	4.0	02/09/24 11:10	TJJ	EPA 6020A
Chromium	25	ug/L		01/30/24 07:30	5	4.0	02/06/24 14:36	TJJ	EPA 6020A
Cobalt	13	ug/L		01/30/24 07:30	5	2.0	02/06/24 14:36	TJJ	EPA 6020A
Lead	10	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Magnesium	270	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:36	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/30/24 07:30	5	0.20	02/06/24 14:36	TJJ	EPA 6020A
Molybdenum	5.6	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Potassium	12	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:36	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-10
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 01/25/24 14:51
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.1	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Sodium	170	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:36	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:36	TJJ	EPA 6020A
Lithium	0.061	mg/L		01/30/24 07:30	1	0.020	01/31/24 13:44	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03720-11
Name: OM21
Matrix: Ground Water - Grab

Sampled: 01/25/24 13:40
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	260	mg/L		01/26/24 14:03	50	50	01/26/24 14:03	TMS	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		01/26/24 14:21	250	250	01/26/24 14:21	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.56	Feet		01/25/24 13:40	1		01/25/24 13:40	FIELD	Field*
Dissolved oxygen, Field	0.66	mg/L		01/25/24 13:40	1		01/25/24 13:40	FIELD	Field*
Oxidation Reduction Potential	-37.0	mV		01/25/24 13:40	1	-500	01/25/24 13:40	FIELD	Field*
pH, Field Measured	6.45	pH Units		01/25/24 13:40	1		01/25/24 13:40	FIELD	Field*
Specific Conductance, Field Measured	3430	umhos/cm		01/25/24 13:40	1		01/25/24 13:40	FIELD	Field*
Temperature, Field Measured	10.9	°C		01/25/24 13:40	1		01/25/24 13:40	FIELD	Field*
Turbidity, Field Measured	982	NTU		01/25/24 13:40	1	0.00	01/25/24 13:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	640	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.251	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:38	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2500	mg/L		01/29/24 13:26	1	26	01/29/24 14:18	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/30/24 07:30	5	3.0	02/06/24 14:40	TJJ	EPA 6020A
Arsenic	2.2	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Barium	35	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Boron	9000	ug/L		01/30/24 07:30	100	200	02/07/24 15:02	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Calcium	320	mg/L		01/30/24 07:30	5	0.20	02/06/24 14:40	TJJ	EPA 6020A
Chromium	5.6	ug/L		01/30/24 07:30	5	4.0	02/06/24 14:40	TJJ	EPA 6020A
Cobalt	3.3	ug/L		01/30/24 07:30	5	2.0	02/06/24 14:40	TJJ	EPA 6020A
Lead	3.6	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Magnesium	150	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:40	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/30/24 07:30	5	0.20	02/06/24 14:40	TJJ	EPA 6020A
Molybdenum	2.2	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Potassium	10	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:40	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-11
Name: OM21
Matrix: Ground Water - Grab

Sampled: 01/25/24 13:40
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Sodium	320	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:40	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:40	TJJ	EPA 6020A
Lithium	0.041	mg/L		01/30/24 07:30	1	0.020	01/31/24 13:45	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03720-12
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 01/25/24 11:40
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	920	mg/L		01/26/24 14:57	250	250	01/26/24 14:57	TMS	EPA 300.0 REV 2.1
Sulfate	1200	mg/L		01/26/24 14:57	250	250	01/26/24 14:57	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.21	Feet		01/25/24 11:40	1		01/25/24 11:40	FIELD	Field*
Dissolved oxygen, Field	0.61	mg/L		01/25/24 11:40	1		01/25/24 11:40	FIELD	Field*
Oxidation Reduction Potential	9.00	mV		01/25/24 11:40	1	-500	01/25/24 11:40	FIELD	Field*
pH, Field Measured	6.33	pH Units		01/25/24 11:40	1		01/25/24 11:40	FIELD	Field*
Specific Conductance, Field Measured	4030	umhos/cm		01/25/24 11:40	1		01/25/24 11:40	FIELD	Field*
Temperature, Field Measured	10.9	°C		01/25/24 11:40	1		01/25/24 11:40	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/25/24 11:40	1	0.00	01/25/24 11:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:39	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3500	mg/L	M	01/29/24 13:26	1	26	01/29/24 14:18	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/30/24 07:30	5	3.0	02/06/24 14:44	TJJ	EPA 6020A
Arsenic	9.5	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Barium	250	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Beryllium	1.5	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Boron	51000	ug/L		01/30/24 07:30	100	200	02/07/24 15:05	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Calcium	590	mg/L		01/30/24 07:30	100	4.0	02/09/24 11:13	TJJ	EPA 6020A
Chromium	40	ug/L		01/30/24 07:30	5	4.0	02/06/24 14:44	TJJ	EPA 6020A
Cobalt	26	ug/L		01/30/24 07:30	5	2.0	02/06/24 14:44	TJJ	EPA 6020A
Lead	15	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Magnesium	170	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:44	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/30/24 07:30	5	0.20	02/06/24 14:44	TJJ	EPA 6020A
Molybdenum	81	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Potassium	12	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:44	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-12
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 01/25/24 11:40
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.1	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Sodium	170	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:44	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:44	TJJ	EPA 6020A
Lithium	0.077	mg/L		01/30/24 07:30	1	0.020	01/31/24 13:46	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03720-13
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 01/25/24 12:36
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	28	mg/L		01/26/24 16:09	5	5.0	01/26/24 16:09	TMS	EPA 300.0 REV 2.1
Sulfate	420	mg/L		01/26/24 16:27	50	50	01/26/24 16:27	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	39.19	Feet		01/25/24 12:36	1		01/25/24 12:36	FIELD	Field*
Dissolved oxygen, Field	0.45	mg/L		01/25/24 12:36	1		01/25/24 12:36	FIELD	Field*
Oxidation Reduction Potential	-39.0	mV		01/25/24 12:36	1	-500	01/25/24 12:36	FIELD	Field*
pH, Field Measured	6.57	pH Units		01/25/24 12:36	1		01/25/24 12:36	FIELD	Field*
Specific Conductance, Field Measured	1720	umhos/cm		01/25/24 12:36	1		01/25/24 12:36	FIELD	Field*
Temperature, Field Measured	11.2	°C		01/25/24 12:36	1		01/25/24 12:36	FIELD	Field*
Turbidity, Field Measured	196	NTU		01/25/24 12:36	1	0.00	01/25/24 12:36	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	600	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:40	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1400	mg/L		01/29/24 13:26	1	26	01/29/24 14:18	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/30/24 07:30	5	3.0	02/06/24 14:48	TJJ	EPA 6020A
Arsenic	1.6	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Barium	28	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Boron	1900	ug/L		01/30/24 07:30	5	10	02/07/24 15:49	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Calcium	170	mg/L		01/30/24 07:30	5	0.20	02/06/24 14:48	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		01/30/24 07:30	5	4.0	02/06/24 14:48	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		01/30/24 07:30	5	2.0	02/06/24 14:48	TJJ	EPA 6020A
Lead	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Magnesium	97	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:48	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/30/24 07:30	5	0.20	02/06/24 14:48	TJJ	EPA 6020A
Molybdenum	2.3	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Potassium	5.2	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:48	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03720-13
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 01/25/24 12:36
Received: 01/25/24 16:33

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Sodium	110	mg/L		01/30/24 07:30	5	0.10	02/06/24 14:48	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/30/24 07:30	5	1.0	02/06/24 14:48	TJJ	EPA 6020A
Lithium	0.035	mg/L		01/30/24 07:30	1	0.020	01/31/24 13:47	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03925-04
Name: BA06
Matrix: Ground Water - Grab

Sampled: 01/26/24 14:53
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	520	mg/L		01/26/24 20:22	100	100	01/26/24 20:22	TMS	EPA 300.0 REV 2.1
Sulfate	360	mg/L		01/26/24 20:22	100	100	01/26/24 20:22	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.51	Feet		01/26/24 14:53	1		01/26/24 14:53	FIELD	Field*
Dissolved oxygen, Field	0.84	mg/L		01/26/24 14:53	1		01/26/24 14:53	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		01/26/24 14:53	1	-500	01/26/24 14:53	FIELD	Field*
pH, Field Measured	6.66	pH Units		01/26/24 14:53	1		01/26/24 14:53	FIELD	Field*
Specific Conductance, Field Measured	2091	umhos/cm		01/26/24 14:53	1		01/26/24 14:53	FIELD	Field*
Temperature, Field Measured	11.1	°C		01/26/24 14:53	1		01/26/24 14:53	FIELD	Field*
Turbidity, Field Measured	352	NTU		01/26/24 14:53	1	0.00	01/26/24 14:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.280	mg/L		02/02/24 16:45	1	0.250	02/06/24 16:45	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1900	mg/L		02/02/24 11:37	1	26	02/02/24 13:09	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/31/24 10:11	5	3.0	02/06/24 09:50	TJJ	EPA 6020A
Arsenic	6.4	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Barium	130	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Boron	11000	ug/L		01/31/24 10:11	100	200	02/07/24 16:03	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Calcium	320	mg/L		01/31/24 10:11	5	0.20	02/06/24 09:50	TJJ	EPA 6020A
Chromium	9.9	ug/L		01/31/24 10:11	5	4.0	02/06/24 09:50	TJJ	EPA 6020A
Cobalt	11	ug/L		01/31/24 10:11	5	2.0	02/06/24 09:50	TJJ	EPA 6020A
Lead	6.5	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Magnesium	200	mg/L		01/31/24 10:11	5	0.10	02/06/24 09:50	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/31/24 10:11	5	0.20	02/06/24 09:50	TJJ	EPA 6020A
Molybdenum	1.8	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Potassium	1.5	mg/L		01/31/24 10:11	5	0.10	02/06/24 09:50	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03925-04
Name: BA06
Matrix: Ground Water - Grab

Sampled: 01/26/24 14:53
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Sodium	16	mg/L		01/31/24 10:11	5	0.10	02/06/24 09:50	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 09:50	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		01/31/24 10:11	1	0.020	02/05/24 15:43	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03925-10
Name: OM07
Matrix: Ground Water - Grab

Sampled: 01/26/24 13:54
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.2	mg/L		01/26/24 20:59	5	5.0	01/26/24 20:59	TMS	EPA 300.0 REV 2.1
Sulfate	170	mg/L		01/26/24 21:17	25	25	01/26/24 21:17	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.24	Feet		01/26/24 13:54	1		01/26/24 13:54	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/26/24 13:54	1		01/26/24 13:54	FIELD	Field*
Oxidation Reduction Potential	-3.00	mV		01/26/24 13:54	1	-500	01/26/24 13:54	FIELD	Field*
pH, Field Measured	7.43	pH Units		01/26/24 13:54	1		01/26/24 13:54	FIELD	Field*
Specific Conductance, Field Measured	1100	umhos/cm		01/26/24 13:54	1		01/26/24 13:54	FIELD	Field*
Temperature, Field Measured	10.7	°C		01/26/24 13:54	1		01/26/24 13:54	FIELD	Field*
Turbidity, Field Measured	128	NTU		01/26/24 13:54	1	0.00	01/26/24 13:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.277	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:45	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	720	mg/L		02/02/24 11:37	1	26	02/02/24 13:09	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/31/24 10:11	5	3.0	02/06/24 11:34	TJJ	EPA 6020A
Arsenic	2.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Barium	67	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Boron	790	ug/L		01/31/24 10:11	100	200	02/07/24 16:06	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Calcium	130	mg/L		01/31/24 10:11	5	0.20	02/06/24 11:34	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		01/31/24 10:11	5	4.0	02/06/24 11:34	TJJ	EPA 6020A
Cobalt	4.7	ug/L		01/31/24 10:11	5	2.0	02/06/24 11:34	TJJ	EPA 6020A
Lead	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Magnesium	67	mg/L		01/31/24 10:11	5	0.10	02/06/24 11:34	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/31/24 10:11	5	0.20	02/06/24 11:34	TJJ	EPA 6020A
Molybdenum	1.3	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Potassium	1.3	mg/L		01/31/24 10:11	5	0.10	02/06/24 11:34	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03925-10
Name: OM07
Matrix: Ground Water - Grab

Sampled: 01/26/24 13:54
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Sodium	55	mg/L		01/31/24 10:11	5	0.10	02/06/24 11:34	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 11:34	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		01/31/24 10:11	1	0.020	02/05/24 15:53	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03925-11
Name: OR11
Matrix: Ground Water - Grab

Sampled: 01/26/24 12:10
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	87	mg/L		01/26/24 21:53	25	25	01/26/24 21:53	TMS	EPA 300.0 REV 2.1
Sulfate	180	mg/L		01/26/24 21:53	25	25	01/26/24 21:53	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	30.9	Feet		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Dissolved oxygen, Field	0.47	mg/L		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Oxidation Reduction Potential	17.0	mV		01/26/24 12:10	1	-500	01/26/24 12:10	FIELD	Field*
pH, Field Measured	7.48	pH Units		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Specific Conductance, Field Measured	1150	umhos/cm		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Temperature, Field Measured	10.3	°C		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Turbidity, Field Measured	328	NTU		01/26/24 12:10	1	0.00	01/26/24 12:10	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	390	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.279	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:46	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	780	mg/L		02/02/24 11:37	1	26	02/02/24 13:09	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/31/24 10:11	5	3.0	02/06/24 10:26	TJJ	EPA 6020A
Arsenic	2.3	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Barium	41	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Boron	12000	ug/L		01/31/24 10:11	100	200	02/07/24 16:09	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Calcium	150	mg/L		01/31/24 10:11	5	0.20	02/06/24 10:26	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		01/31/24 10:11	5	4.0	02/06/24 10:26	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		01/31/24 10:11	5	2.0	02/06/24 10:26	TJJ	EPA 6020A
Lead	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Magnesium	66	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:26	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/31/24 10:11	5	0.20	02/06/24 10:26	TJJ	EPA 6020A
Molybdenum	6.3	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Potassium	3.8	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:26	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03925-11
Name: OR11
Matrix: Ground Water - Grab

Sampled: 01/26/24 12:10
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Sodium	38	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:26	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:26	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		01/31/24 10:11	1	0.020	02/05/24 15:55	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03925-12
Name: OR11 DUP
Matrix: Ground Water - Grab

Sampled: 01/26/24 12:10
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	85	mg/L		01/26/24 22:29	25	25	01/26/24 22:29	TMS	EPA 300.0 REV 2.1
Sulfate	180	mg/L		01/26/24 22:29	25	25	01/26/24 22:29	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	30.9	Feet		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Dissolved oxygen, Field	0.47	mg/L		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Oxidation Reduction Potential	17.0	mV		01/26/24 12:10	1	-500	01/26/24 12:10	FIELD	Field*
pH, Field Measured	7.48	pH Units		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Specific Conductance, Field Measured	1150	umhos/cm		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Temperature, Field Measured	10.3	°C		01/26/24 12:10	1		01/26/24 12:10	FIELD	Field*
Turbidity, Field Measured	328	NTU		01/26/24 12:10	1	0.00	01/26/24 12:10	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.275	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:48	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	820	mg/L		02/02/24 11:37	1	26	02/02/24 13:09	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/31/24 10:11	5	3.0	02/06/24 10:30	TJJ	EPA 6020A
Arsenic	2.3	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Barium	43	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Boron	11000	ug/L		01/31/24 10:11	100	200	02/07/24 16:33	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Calcium	140	mg/L		01/31/24 10:11	5	0.20	02/06/24 10:30	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		01/31/24 10:11	5	4.0	02/06/24 10:30	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		01/31/24 10:11	5	2.0	02/06/24 10:30	TJJ	EPA 6020A
Lead	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Magnesium	63	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:30	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/31/24 10:11	5	0.20	02/06/24 10:30	TJJ	EPA 6020A
Molybdenum	6.1	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Potassium	3.7	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:30	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03925-12
Name: OR11 DUP
Matrix: Ground Water - Grab

Sampled: 01/26/24 12:10
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Sodium	36	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:30	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:30	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		01/31/24 10:11	1	0.020	02/05/24 15:57	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA03925-13
Name: OR20
Matrix: Ground Water - Grab

Sampled: 01/26/24 13:00
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	330	mg/L		01/26/24 23:41	100	100	01/26/24 23:41	TMS	EPA 300.0 REV 2.1
Sulfate	410	mg/L		01/26/24 23:41	100	100	01/26/24 23:41	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.26	Feet		01/26/24 13:00	1		01/26/24 13:00	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/26/24 13:00	1		01/26/24 13:00	FIELD	Field*
Oxidation Reduction Potential	3.00	mV		01/26/24 13:00	1	-500	01/26/24 13:00	FIELD	Field*
pH, Field Measured	7.11	pH Units		01/26/24 13:00	1		01/26/24 13:00	FIELD	Field*
Specific Conductance, Field Measured	2340	umhos/cm		01/26/24 13:00	1		01/26/24 13:00	FIELD	Field*
Temperature, Field Measured	9.6	°C		01/26/24 13:00	1		01/26/24 13:00	FIELD	Field*
Turbidity, Field Measured	979	NTU		01/26/24 13:00	1	0.00	01/26/24 13:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.502	mg/L		02/02/24 14:24	1	0.250	02/02/24 16:49	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1500	mg/L		02/02/24 11:37	1	26	02/02/24 13:09	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		01/31/24 10:11	5	3.0	02/06/24 10:34	TJJ	EPA 6020A
Arsenic	22	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Barium	60	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Boron	33000	ug/L		01/31/24 10:11	100	200	02/07/24 16:35	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Calcium	250	mg/L		01/31/24 10:11	5	0.20	02/06/24 10:34	TJJ	EPA 6020A
Chromium	14	ug/L		01/31/24 10:11	5	4.0	02/06/24 10:34	TJJ	EPA 6020A
Cobalt	6.2	ug/L		01/31/24 10:11	5	2.0	02/06/24 10:34	TJJ	EPA 6020A
Lead	6.7	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Magnesium	97	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:34	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		01/31/24 10:11	5	0.20	02/06/24 10:34	TJJ	EPA 6020A
Molybdenum	41	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Potassium	9.2	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:34	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA03925-13
Name: OR20
Matrix: Ground Water - Grab

Sampled: 01/26/24 13:00
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Sodium	170	mg/L		01/31/24 10:11	5	0.10	02/06/24 10:34	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		01/31/24 10:11	5	1.0	02/06/24 10:34	TJJ	EPA 6020A
Lithium	0.050	mg/L		01/31/24 10:11	1	0.020	02/05/24 15:59	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04058-04
Name: OM12
Matrix: Ground Water - Grab

Sampled: 01/29/24 13:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 5.0	mg/L		01/30/24 11:00	5	5.0	01/30/24 11:00	KCS1	EPA 300.0 REV 2.1
Sulfate	490	mg/L		01/30/24 11:18	50	50	01/30/24 11:18	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.8	Feet		01/29/24 13:00	1		01/29/24 13:00	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		01/29/24 13:00	1		01/29/24 13:00	FIELD	Field*
Oxidation Reduction Potential	-75.0	mV		01/29/24 13:00	1	-500	01/29/24 13:00	FIELD	Field*
pH, Field Measured	6.45	pH Units		01/29/24 13:00	1		01/29/24 13:00	FIELD	Field*
Specific Conductance, Field Measured	1870	umhos/cm		01/29/24 13:00	1		01/29/24 13:00	FIELD	Field*
Temperature, Field Measured	10.2	°C		01/29/24 13:00	1		01/29/24 13:00	FIELD	Field*
Turbidity, Field Measured	727	NTU		01/29/24 13:00	1	0.00	01/29/24 13:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	720	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/08/24 16:51	1	0.250	02/08/24 16:51	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1300	mg/L		02/02/24 15:47	1	26	02/02/24 15:47	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/01/24 08:15	5	3.0	02/06/24 16:05	TJJ	EPA 6020A
Arsenic	22	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Barium	250	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Boron	69	ug/L		02/01/24 08:15	5	10	02/08/24 14:08	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Calcium	300	mg/L		02/01/24 08:15	5	0.20	02/06/24 16:05	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/01/24 08:15	5	4.0	02/06/24 16:05	TJJ	EPA 6020A
Cobalt	3.0	ug/L		02/01/24 08:15	5	2.0	02/06/24 16:05	TJJ	EPA 6020A
Lead	4.7	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Magnesium	120	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:05	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/01/24 08:15	5	0.20	02/06/24 16:05	TJJ	EPA 6020A
Molybdenum	2.8	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Potassium	1.5	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:05	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04058-04
Name: OM12
Matrix: Ground Water - Grab

Sampled: 01/29/24 13:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Sodium	13	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:05	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:05	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/01/24 08:15	1	0.020	02/05/24 16:17	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04058-05
Name: OM16
Matrix: Ground Water - Grab

Sampled: 01/29/24 11:50
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.1	mg/L		01/31/24 19:10	5	5.0	01/31/24 19:10	CRD	EPA 300.0 REV 2.1
Sulfate	2000	mg/L		01/30/24 11:54	500	500	01/30/24 11:54	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.29	Feet		01/29/24 11:50	1		01/29/24 11:50	FIELD	Field*
Dissolved oxygen, Field	0.90	mg/L		01/29/24 11:50	1		01/29/24 11:50	FIELD	Field*
Oxidation Reduction Potential	14.0	mV		01/29/24 11:50	1	-500	01/29/24 11:50	FIELD	Field*
pH, Field Measured	6.33	pH Units		01/29/24 11:50	1		01/29/24 11:50	FIELD	Field*
Specific Conductance, Field Measured	3190	umhos/cm		01/29/24 11:50	1		01/29/24 11:50	FIELD	Field*
Temperature, Field Measured	8.3	°C		01/29/24 11:50	1		01/29/24 11:50	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/29/24 11:50	1	0.00	01/29/24 11:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	740	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/08/24 16:54	1	0.250	02/08/24 16:54	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3400	mg/L		02/01/24 11:01	1	26	02/01/24 13:28	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/01/24 08:15	5	3.0	02/06/24 16:09	TJJ	EPA 6020A
Arsenic	9.4	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Barium	46	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Boron	42	ug/L		02/01/24 08:15	5	10	02/08/24 14:10	TJJ	EPA 6020A
Cadmium	6.4	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Calcium	530	mg/L		02/01/24 08:15	100	4.0	02/09/24 11:39	TJJ	EPA 6020A
Chromium	11	ug/L		02/01/24 08:15	5	4.0	02/06/24 16:09	TJJ	EPA 6020A
Cobalt	11	ug/L		02/01/24 08:15	5	2.0	02/06/24 16:09	TJJ	EPA 6020A
Lead	5.9	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Magnesium	320	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:09	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/01/24 08:15	5	0.20	02/06/24 16:09	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Potassium	3.2	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:09	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04058-05
Name: OM16
Matrix: Ground Water - Grab

Sampled: 01/29/24 11:50
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Sodium	25	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:09	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:09	TJJ	EPA 6020A
Lithium	0.028	mg/L		02/01/24 08:15	1	0.020	02/05/24 16:19	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04058-06
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 01/29/24 15:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	29	mg/L		01/30/24 12:30	10	10	01/30/24 12:30	KCS1	EPA 300.0 REV 2.1
Sulfate	880	mg/L		01/30/24 12:48	100	100	01/30/24 12:48	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.81	Feet		01/29/24 15:00	1		01/29/24 15:00	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		01/29/24 15:00	1		01/29/24 15:00	FIELD	Field*
Oxidation Reduction Potential	-19.0	mV		01/29/24 15:00	1	-500	01/29/24 15:00	FIELD	Field*
pH, Field Measured	6.69	pH Units		01/29/24 15:00	1		01/29/24 15:00	FIELD	Field*
Specific Conductance, Field Measured	1950	umhos/cm		01/29/24 15:00	1		01/29/24 15:00	FIELD	Field*
Temperature, Field Measured	9.8	°C		01/29/24 15:00	1		01/29/24 15:00	FIELD	Field*
Turbidity, Field Measured	244	NTU		01/29/24 15:00	1	0.00	01/29/24 15:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	560	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/08/24 16:55	1	0.250	02/08/24 16:55	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1700	mg/L		02/01/24 11:01	1	26	02/01/24 13:28	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/01/24 08:15	5	3.0	02/06/24 16:12	TJJ	EPA 6020A
Arsenic	23	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Barium	39	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Boron	2100	ug/L		02/01/24 08:15	5	10	02/08/24 14:13	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Calcium	320	mg/L		02/01/24 08:15	5	0.20	02/06/24 16:12	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/01/24 08:15	5	4.0	02/06/24 16:12	TJJ	EPA 6020A
Cobalt	3.0	ug/L		02/01/24 08:15	5	2.0	02/06/24 16:12	TJJ	EPA 6020A
Lead	2.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Magnesium	140	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:12	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/01/24 08:15	5	0.20	02/06/24 16:12	TJJ	EPA 6020A
Molybdenum	5.6	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Potassium	3.2	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:12	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04058-06
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 01/29/24 15:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Sodium	57	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:12	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:12	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/01/24 08:15	1	0.020	02/05/24 16:21	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04058-07
Name: OR19
Matrix: Ground Water - Grab

Sampled: 01/29/24 14:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	150	mg/L		01/30/24 13:24	100	100	01/30/24 13:24	KCS1	EPA 300.0 REV 2.1
Sulfate	910	mg/L		01/30/24 13:24	100	100	01/30/24 13:24	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.14	Feet		01/29/24 14:00	1		01/29/24 14:00	FIELD	Field*
Dissolved oxygen, Field	2.1	mg/L		01/29/24 14:00	1		01/29/24 14:00	FIELD	Field*
Oxidation Reduction Potential	-33.0	mV		01/29/24 14:00	1	-500	01/29/24 14:00	FIELD	Field*
pH, Field Measured	6.63	pH Units		01/29/24 14:00	1		01/29/24 14:00	FIELD	Field*
Specific Conductance, Field Measured	2510	umhos/cm		01/29/24 14:00	1		01/29/24 14:00	FIELD	Field*
Temperature, Field Measured	9.5	°C		01/29/24 14:00	1		01/29/24 14:00	FIELD	Field*
Turbidity, Field Measured	589	NTU		01/29/24 14:00	1	0.00	01/29/24 14:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	610	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.388	mg/L		02/08/24 16:57	1	0.250	02/08/24 16:57	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2100	mg/L	M	02/01/24 11:01	1	26	02/01/24 13:28	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/01/24 08:15	5	3.0	02/06/24 16:16	TJJ	EPA 6020A
Arsenic	10	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Barium	160	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Beryllium	1.3	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Boron	14000	ug/L		02/01/24 08:15	100	200	02/12/24 12:01	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Calcium	360	mg/L		02/01/24 08:15	5	0.20	02/06/24 16:16	TJJ	EPA 6020A
Chromium	37	ug/L		02/01/24 08:15	5	4.0	02/06/24 16:16	TJJ	EPA 6020A
Cobalt	18	ug/L		02/01/24 08:15	5	2.0	02/06/24 16:16	TJJ	EPA 6020A
Lead	27	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Magnesium	170	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:16	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/01/24 08:15	5	0.20	02/06/24 16:16	TJJ	EPA 6020A
Molybdenum	5.8	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Potassium	7.5	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:16	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04058-07
Name: OR19
Matrix: Ground Water - Grab

Sampled: 01/29/24 14:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.9	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Sodium	150	mg/L		02/01/24 08:15	5	0.10	02/06/24 16:16	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/01/24 08:15	5	1.0	02/06/24 16:16	TJJ	EPA 6020A
Lithium	0.042	mg/L		02/01/24 08:15	1	0.020	02/05/24 16:23	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04272-04
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 01/30/24 14:05
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	530	mg/L	Q4	01/31/24 17:01	100	100	01/31/24 17:01	CRD	EPA 300.0 REV 2.1
Sulfate	860	mg/L	Q4	01/31/24 17:01	100	100	01/31/24 17:01	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	2.59	Feet		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Oxidation Reduction Potential	9.00	mV		01/30/24 14:05	1	-500	01/30/24 14:05	FIELD	Field*
pH, Field Measured	6.84	pH Units		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Specific Conductance, Field Measured	3130	umhos/cm		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Temperature, Field Measured	9.4	°C		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Turbidity, Field Measured	196	NTU		01/30/24 14:05	1	0.00	01/30/24 14:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/06/24 15:37	1	0.250	02/06/24 15:37	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2300	mg/L	B2	02/05/24 09:30	1	17	02/05/24 10:52	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/05/24 09:06	5	3.0	02/06/24 17:18	TJJ	EPA 6020A
Arsenic	3.6	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Barium	18	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Boron	28000	ug/L		02/05/24 09:06	100	200	02/12/24 15:14	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Calcium	420	mg/L		02/05/24 09:06	5	0.20	02/06/24 17:18	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/05/24 09:06	5	4.0	02/06/24 17:18	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		02/05/24 09:06	5	2.0	02/06/24 17:18	TJJ	EPA 6020A
Lead	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Magnesium	150	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:18	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/05/24 09:06	5	0.20	02/06/24 17:18	TJJ	EPA 6020A
Molybdenum	4.5	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Potassium	4.1	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:18	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04272-04
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 01/30/24 14:05
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Sodium	120	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:18	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:18	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/05/24 09:06	1	0.020	02/09/24 11:30	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04272-05
Name: OM24D DUP
Matrix: Ground Water - Grab

Sampled: 01/30/24 14:05
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	490	mg/L		01/31/24 17:41	100	100	01/31/24 17:41	CRD	EPA 300.0 REV 2.1
Sulfate	800	mg/L		01/31/24 17:41	100	100	01/31/24 17:41	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	2.59	Feet		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Oxidation Reduction Potential	9.00	mV		01/30/24 14:05	1	-500	01/30/24 14:05	FIELD	Field*
pH, Field Measured	6.84	pH Units		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Specific Conductance, Field Measured	3130	umhos/cm		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Temperature, Field Measured	9.4	°C		01/30/24 14:05	1		01/30/24 14:05	FIELD	Field*
Turbidity, Field Measured	196	NTU		01/30/24 14:05	1	0.00	01/30/24 14:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/06/24 15:38	1	0.250	02/06/24 15:38	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2100	mg/L		02/05/24 11:53	1	17	02/05/24 14:12	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		03/07/24 07:01	5	3.0	03/08/24 15:49	TJJ	EPA 6020A
Arsenic	3.7	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Barium	20	ug/L		03/07/24 07:01	5	1.0	03/12/24 10:55	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Boron	28000	ug/L		03/07/24 07:01	100	200	03/12/24 10:07	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Calcium	480	mg/L		03/07/24 07:01	5	0.20	03/08/24 15:49	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		03/07/24 07:01	5	4.0	03/08/24 15:49	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		03/07/24 07:01	5	2.0	03/08/24 15:49	TJJ	EPA 6020A
Lead	< 1.0	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Magnesium	170	mg/L		03/07/24 07:01	5	0.10	03/08/24 15:49	TJJ	EPA 6020A
Mercury	< 0.20	ug/L	H	03/07/24 07:01	5	0.20	03/08/24 15:49	TJJ	EPA 6020A
Molybdenum	5.5	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Potassium	4.8	mg/L		03/07/24 07:01	5	0.10	03/08/24 15:49	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04272-05
Name: OM24D DUP
Matrix: Ground Water - Grab

Sampled: 01/30/24 14:05
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Sodium	140	mg/L		03/07/24 07:01	5	0.10	03/12/24 10:55	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		03/07/24 07:01	5	1.0	03/08/24 15:49	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		03/07/24 07:01	1	0.020	03/08/24 13:19	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04272-06
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 01/30/24 15:06
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	630	mg/L		01/31/24 18:01	100	100	01/31/24 18:01	CRD	EPA 300.0 REV 2.1
Sulfate	720	mg/L		01/31/24 18:01	100	100	01/31/24 18:01	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	58.1	Feet		01/30/24 15:06	1		01/30/24 15:06	FIELD	Field*
Dissolved oxygen, Field	1.9	mg/L		01/30/24 15:06	1		01/30/24 15:06	FIELD	Field*
Oxidation Reduction Potential	31.0	mV		01/30/24 15:06	1	-500	01/30/24 15:06	FIELD	Field*
pH, Field Measured	6.91	pH Units		01/30/24 15:06	1		01/30/24 15:06	FIELD	Field*
Specific Conductance, Field Measured	3430	umhos/cm		01/30/24 15:06	1		01/30/24 15:06	FIELD	Field*
Temperature, Field Measured	10.0	°C		01/30/24 15:06	1		01/30/24 15:06	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		01/30/24 15:06	1	0.00	01/30/24 15:06	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/06/24 15:39	1	0.250	02/06/24 15:39	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2500	mg/L	B2	02/05/24 09:30	1	17	02/05/24 10:52	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/05/24 09:06	5	3.0	02/06/24 17:26	TJJ	EPA 6020A
Arsenic	7.2	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Barium	89	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Boron	36000	ug/L		02/05/24 09:06	100	200	02/12/24 15:21	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Calcium	380	mg/L		02/05/24 09:06	5	0.20	02/06/24 17:26	TJJ	EPA 6020A
Chromium	23	ug/L		02/05/24 09:06	5	4.0	02/06/24 17:26	TJJ	EPA 6020A
Cobalt	17	ug/L		02/05/24 09:06	5	2.0	02/06/24 17:26	TJJ	EPA 6020A
Lead	13	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Magnesium	210	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:26	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/05/24 09:06	5	0.20	02/06/24 17:26	TJJ	EPA 6020A
Molybdenum	3.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Potassium	11	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:26	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04272-06
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 01/30/24 15:06
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Sodium	130	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:26	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:26	TJJ	EPA 6020A
Lithium	0.080	mg/L		02/05/24 09:06	1	0.020	02/09/24 11:34	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04272-07
Name: OR02
Matrix: Ground Water - Grab

Sampled: 01/30/24 15:31
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	170	mg/L		01/31/24 19:42	100	100	01/31/24 19:42	CRD	EPA 300.0 REV 2.1
Sulfate	270	mg/L		01/31/24 19:42	100	100	01/31/24 19:42	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	3.95	Feet		01/30/24 15:31	1		01/30/24 15:31	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		01/30/24 15:31	1		01/30/24 15:31	FIELD	Field*
Oxidation Reduction Potential	12.0	mV		01/30/24 15:31	1	-500	01/30/24 15:31	FIELD	Field*
pH, Field Measured	6.76	pH Units		01/30/24 15:31	1		01/30/24 15:31	FIELD	Field*
Specific Conductance, Field Measured	1420	umhos/cm		01/30/24 15:31	1		01/30/24 15:31	FIELD	Field*
Temperature, Field Measured	9.7	°C		01/30/24 15:31	1		01/30/24 15:31	FIELD	Field*
Turbidity, Field Measured	85.6	NTU		01/30/24 15:31	1	0.00	01/30/24 15:31	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	550	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/06/24 15:40	1	0.250	02/06/24 15:40	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L	B2	02/05/24 09:30	1	17	02/05/24 10:52	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/05/24 09:06	5	3.0	02/06/24 17:30	TJJ	EPA 6020A
Arsenic	4.6	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Barium	40	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Boron	4800	ug/L		02/05/24 09:06	100	200	02/12/24 15:25	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Calcium	230	mg/L		02/05/24 09:06	5	0.20	02/06/24 17:30	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/05/24 09:06	5	4.0	02/06/24 17:30	TJJ	EPA 6020A
Cobalt	5.8	ug/L		02/05/24 09:06	5	2.0	02/06/24 17:30	TJJ	EPA 6020A
Lead	1.5	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Magnesium	91	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:30	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/05/24 09:06	5	0.20	02/06/24 17:30	TJJ	EPA 6020A
Molybdenum	2.2	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Potassium	2.2	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:30	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04272-07
Name: OR02
Matrix: Ground Water - Grab

Sampled: 01/30/24 15:31
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Sodium	92	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:30	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:30	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/05/24 09:06	1	0.020	02/09/24 11:36	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HA04272-08
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 01/30/24 11:36
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	46	mg/L		01/31/24 20:22	5	5.0	01/31/24 20:22	CRD	EPA 300.0 REV 2.1
Sulfate	280	mg/L		01/31/24 20:42	100	100	01/31/24 20:42	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13	Feet		01/30/24 11:36	1		01/30/24 11:36	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		01/30/24 11:36	1		01/30/24 11:36	FIELD	Field*
Oxidation Reduction Potential	-30.0	mV		01/30/24 11:36	1	-500	01/30/24 11:36	FIELD	Field*
pH, Field Measured	7.54	pH Units		01/30/24 11:36	1		01/30/24 11:36	FIELD	Field*
Specific Conductance, Field Measured	1760	umhos/cm		01/30/24 11:36	1		01/30/24 11:36	FIELD	Field*
Temperature, Field Measured	10.3	°C		01/30/24 11:36	1		01/30/24 11:36	FIELD	Field*
Turbidity, Field Measured	124	NTU		01/30/24 11:36	1	0.00	01/30/24 11:36	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	700	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/06/24 08:25	1	10	02/06/24 08:25	TMS	SM 2320B 1997*
Fluoride	0.282	mg/L		02/06/24 15:42	1	0.250	02/06/24 15:42	TTH	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		02/05/24 11:53	1	17	02/05/24 14:12	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/05/24 09:06	5	3.0	02/06/24 17:34	TJJ	EPA 6020A
Arsenic	5.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Barium	32	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Boron	1800	ug/L		02/05/24 09:06	5	10	02/14/24 12:46	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Calcium	110	mg/L		02/05/24 09:06	5	0.20	02/06/24 17:34	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/05/24 09:06	5	4.0	02/06/24 17:34	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		02/05/24 09:06	5	2.0	02/06/24 17:34	TJJ	EPA 6020A
Lead	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Magnesium	60	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:34	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/05/24 09:06	5	0.20	02/06/24 17:34	TJJ	EPA 6020A
Molybdenum	7.5	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Potassium	4.8	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:34	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HA04272-08
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 01/30/24 11:36
Received: 01/30/24 17:03

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Sodium	250	mg/L		02/05/24 09:06	5	0.10	02/06/24 17:34	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/05/24 09:06	5	1.0	02/06/24 17:34	TJJ	EPA 6020A
Lithium	0.028	mg/L		02/05/24 09:06	1	0.020	02/09/24 11:38	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HB00518-03
Name: OM17
Matrix: Ground Water - Grab

Sampled: 02/05/24 11:27
Received: 02/05/24 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.9	mg/L		02/06/24 09:47	1	1.0	02/06/24 09:47	KCS1	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		02/06/24 09:47	1	0.250	02/06/24 09:47	KCS1	EPA 300.0 REV 2.1
Sulfate	88	mg/L		02/06/24 09:29	50	50	02/06/24 10:05	KCS1	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.61	Feet		02/05/24 11:27	1		02/05/24 11:27	FIELD	Field*
Dissolved oxygen, Field	2.8	mg/L		02/05/24 11:27	1		02/05/24 11:27	FIELD	Field*
Oxidation Reduction Potential	229	mV		02/05/24 11:27	1	-500	02/05/24 11:27	FIELD	Field*
pH, Field Measured	7.86	pH Units		02/05/24 11:27	1		02/05/24 11:27	FIELD	Field*
Specific Conductance, Field Measured	744.0	umhos/cm		02/05/24 11:27	1		02/05/24 11:27	FIELD	Field*
Temperature, Field Measured	12.2	°C		02/05/24 11:27	1		02/05/24 11:27	FIELD	Field*
Turbidity, Field Measured	36.9	NTU		02/05/24 11:27	1	0.00	02/05/24 11:27	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	320	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		02/08/24 13:46	1	17	02/08/24 14:35	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/08/24 08:01	5	3.0	02/15/24 16:10	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Barium	76	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Boron	110	ug/L		02/08/24 08:01	5	10	02/16/24 09:58	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Calcium	120	mg/L		02/08/24 08:01	5	0.20	02/15/24 16:10	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/08/24 08:01	5	4.0	02/15/24 16:10	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		02/08/24 08:01	5	2.0	02/15/24 16:10	TJJ	EPA 6020A
Lead	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Magnesium	33	mg/L		02/08/24 08:01	5	0.10	02/15/24 16:10	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/08/24 08:01	5	0.20	02/15/24 16:10	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Potassium	4.2	mg/L		02/08/24 08:01	5	0.10	02/15/24 16:10	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HB00518-03
Name: OM17
Matrix: Ground Water - Grab

Sampled: 02/05/24 11:27
Received: 02/05/24 16:30

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Sodium	1.6	mg/L		02/08/24 08:01	5	0.10	02/15/24 16:10	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:10	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/08/24 08:01	1	0.020	02/09/24 12:51	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HB00819-01
Name: OM01
Matrix: Ground Water - Grab

Sampled: 02/06/24 12:30
Received: 02/06/24 17:01
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	37	mg/L	Q4	02/07/24 17:15	5	5.0	02/07/24 17:15	CRD	EPA 300.0 REV 2.1
Sulfate	2000	mg/L	Q4	02/07/24 17:35	250	250	02/07/24 17:35	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	10.6	Feet		02/06/24 12:30	1		02/06/24 12:30	FIELD	Field*
Dissolved oxygen, Field	2.6	mg/L		02/06/24 12:30	1		02/06/24 12:30	FIELD	Field*
Oxidation Reduction Potential	67.0	mV		02/06/24 12:30	1	-500	02/06/24 12:30	FIELD	Field*
pH, Field Measured	6.43	pH Units		02/06/24 12:30	1		02/06/24 12:30	FIELD	Field*
Specific Conductance, Field Measured	3210	umhos/cm		02/06/24 12:30	1		02/06/24 12:30	FIELD	Field*
Temperature, Field Measured	9.2	°C		02/06/24 12:30	1		02/06/24 12:30	FIELD	Field*
Turbidity, Field Measured	61.1	NTU		02/06/24 12:30	1	0.00	02/06/24 12:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/08/24 17:04	1	0.250	02/08/24 17:04	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3400	mg/L		02/12/24 13:34	1	17	02/12/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		02/08/24 08:01	5	3.0	02/15/24 16:18	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Barium	20	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Boron	230	ug/L		02/08/24 08:01	10	20	02/16/24 11:12	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Calcium	570	mg/L		02/08/24 08:01	5	0.20	02/15/24 16:18	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		02/08/24 08:01	5	4.0	02/15/24 16:18	TJJ	EPA 6020A
Cobalt	14	ug/L		02/08/24 08:01	5	2.0	02/15/24 16:18	TJJ	EPA 6020A
Lead	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Magnesium	240	mg/L	Q4	02/08/24 08:01	5	0.10	02/15/24 16:18	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		02/08/24 08:01	5	0.20	02/15/24 16:18	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Potassium	0.88	mg/L		02/08/24 08:01	5	0.10	02/15/24 16:18	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HB00819-01
Name: OM01
Matrix: Ground Water - Grab

Sampled: 02/06/24 12:30
Received: 02/06/24 17:01
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Sodium	29	mg/L		02/08/24 08:01	5	0.10	02/15/24 16:18	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/15/24 16:18	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/08/24 08:01	1	0.020	02/09/24 12:55	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HB00819-02
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 02/06/24 11:53
Received: 02/06/24 17:01
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	560	mg/L		02/07/24 18:15	100	100	02/07/24 18:15	CRD	EPA 300.0 REV 2.1
Sulfate	630	mg/L		02/07/24 18:15	100	100	02/07/24 18:15	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.91	Feet		02/06/24 11:53	1		02/06/24 11:53	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		02/06/24 11:53	1		02/06/24 11:53	FIELD	Field*
Oxidation Reduction Potential	127	mV		02/06/24 11:53	1	-500	02/06/24 11:53	FIELD	Field*
pH, Field Measured	6.33	pH Units		02/06/24 11:53	1		02/06/24 11:53	FIELD	Field*
Specific Conductance, Field Measured	3610	umhos/cm		02/06/24 11:53	1		02/06/24 11:53	FIELD	Field*
Temperature, Field Measured	12.8	°C		02/06/24 11:53	1		02/06/24 11:53	FIELD	Field*
Turbidity, Field Measured	466	NTU		02/06/24 11:53	1	0.00	02/06/24 11:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		02/13/24 10:32	1	10	02/13/24 10:32	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		02/08/24 17:06	1	0.250	02/08/24 17:06	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2400	mg/L		02/12/24 13:34	1	17	02/12/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 6.0	ug/L		02/08/24 08:01	10	6.0	02/19/24 19:22	TJJ	EPA 6020A
Arsenic	9.5	ug/L		02/08/24 08:01	20	4.0	02/15/24 16:41	TJJ	EPA 6020A
Barium	35	ug/L		02/08/24 08:01	100	20	02/16/24 11:23	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		02/08/24 08:01	5	1.0	02/21/24 11:19	wjm	EPA 6020A
Boron	57000	ug/L		02/08/24 08:01	100	200	02/16/24 11:23	TJJ	EPA 6020A
Cadmium	< 4.0	ug/L		02/08/24 08:01	20	4.0	02/15/24 16:41	TJJ	EPA 6020A
Calcium	430	mg/L		02/08/24 08:01	20	0.80	02/15/24 16:41	TJJ	EPA 6020A
Chromium	< 16	ug/L		02/08/24 08:01	20	16	02/15/24 16:41	TJJ	EPA 6020A
Cobalt	< 8.0	ug/L		02/08/24 08:01	20	8.0	02/15/24 16:41	TJJ	EPA 6020A
Lead	< 2.0	ug/L		02/08/24 08:01	10	2.0	02/19/24 19:22	TJJ	EPA 6020A
Magnesium	120	mg/L		02/08/24 08:01	20	0.40	02/15/24 16:41	TJJ	EPA 6020A
Mercury	< 0.40	ug/L		02/08/24 08:01	10	0.40	02/19/24 19:22	TJJ	EPA 6020A
Molybdenum	70	ug/L		02/08/24 08:01	20	4.0	02/15/24 16:41	TJJ	EPA 6020A
Potassium	2.3	mg/L		02/08/24 08:01	20	0.40	02/15/24 16:41	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HB00819-02
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 02/06/24 11:53
Received: 02/06/24 17:01
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 4.0	ug/L		02/08/24 08:01	20	4.0	02/15/24 16:41	TJJ	EPA 6020A
Sodium	80	mg/L		02/08/24 08:01	20	0.40	02/15/24 16:41	TJJ	EPA 6020A
Thallium	< 2.0	ug/L		02/08/24 08:01	10	2.0	02/19/24 19:22	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		02/08/24 08:01	1	0.020	02/09/24 13:02	BRS	EPA 6010B

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B423993 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B423993-CCB1)				Prepared & Analyzed: 01/25/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B423993-CCV1)				Prepared & Analyzed: 01/25/24					
Chloride	4.69	mg/L		5.000		94	90-110		
Sulfate	4.84	mg/L		5.000		97	90-110		
Batch B424020 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424020-CCB1)				Prepared & Analyzed: 01/26/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B424020-CCV1)				Prepared & Analyzed: 01/26/24					
Sulfate	5.12	mg/L		5.000		102	90-110		
Chloride	5.08	mg/L		5.000		102	90-110		
Matrix Spike (B424020-MS1)	**Sample: HA03720-10**			Prepared & Analyzed: 01/26/24					
Chloride	< 1.0	mg/L	Q4	1.500	1400	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	684	NR	80-120		
Matrix Spike Dup (B424020-MSD1)	**Sample: HA03720-10**			Prepared & Analyzed: 01/26/24					
Chloride	< 1.0	mg/L	Q4	1.500	1400	NR	80-120		20
Sulfate	1.00E9	mg/L	Q4	1.500	684	NR	80-120	0	20
Batch B424039 - SW 3015 - EPA 6010B									
Blank (B424039-BLK1)				Prepared: 01/29/24 Analyzed: 01/31/24					
Lithium	< 0.020	mg/L							
LCS (B424039-BS1)				Prepared: 01/29/24 Analyzed: 01/31/24					
Lithium	0.524	mg/L		0.5556		94	80-120		
Matrix Spike (B424039-MS1)	**Sample: HA03433-02**			Prepared: 01/29/24 Analyzed: 01/31/24					
Lithium	0.506	mg/L		0.5556	ND	91	75-125		
Matrix Spike Dup (B424039-MSD1)	**Sample: HA03433-02**			Prepared: 01/29/24 Analyzed: 01/31/24					
Lithium	0.510	mg/L		0.5556	ND	92	75-125	0.9	20
Batch B424039 - SW 3015 - EPA 6020A									
Blank (B424039-BLK1)				Prepared: 01/29/24 Analyzed: 02/06/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B424039-BLK1)				Prepared: 01/29/24 Analyzed: 02/05/24					
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B424039-BS1)				Prepared: 01/29/24 Analyzed: 02/06/24					
Antimony	548	ug/L		555.6		99	80-120		
Arsenic	537	ug/L		555.6		97	80-120		
Barium	514	ug/L		555.6		92	80-120		
Beryllium	545	ug/L		555.6		98	80-120		
Boron	555	ug/L		555.6		100	80-120		
Cadmium	536	ug/L		555.6		97	80-120		
Calcium	5.84	mg/L		5.556		105	80-120		
Chromium	550	ug/L		555.6		99	80-120		
Cobalt	551	ug/L		555.6		99	80-120		
Lead	565	ug/L		555.6		102	80-120		
Magnesium	5.77	mg/L		5.556		104	80-120		
Mercury	54.0	ug/L		55.56		97	80-120		
Molybdenum	524	ug/L		555.6		94	80-120		
Potassium	5.68	mg/L		5.556		102	80-120		
Selenium	538	ug/L		555.6		97	80-120		
Sodium	5.72	mg/L		5.556		103	80-120		
Thallium	542	ug/L		555.6		98	80-120		
Matrix Spike (B424039-MS1)	**Sample: HA03433-02**			Prepared: 01/29/24 Analyzed: 02/06/24					
Antimony	552	ug/L		555.6	0.500	99	75-125		
Arsenic	546	ug/L		555.6	ND	98	75-125		
Barium	680	ug/L		555.6	154	95	75-125		
Beryllium	555	ug/L		555.6	ND	100	75-125		
Boron	570	ug/L		555.6	17.8	99	75-125		
Cadmium	544	ug/L		555.6	ND	98	75-125		
Calcium	153	mg/L	Q4	5.556	156	NR	75-125		
Chromium	565	ug/L		555.6	ND	102	75-125		
Cobalt	544	ug/L		555.6	ND	98	75-125		
Lead	566	ug/L		555.6	ND	102	75-125		
Magnesium	76.0	mg/L		5.556	71.2	86	75-125		
Mercury	54.3	ug/L		55.56	ND	98	75-125		
Molybdenum	541	ug/L		555.6	ND	97	75-125		
Potassium	5.97	mg/L		5.556	0.348	101	75-125		
Selenium	545	ug/L		555.6	ND	98	75-125		
Sodium	19.4	mg/L		5.556	14.0	98	75-125		
Thallium	543	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B424039-MSD1)	**Sample: HA03433-02**			Prepared: 01/29/24 Analyzed: 02/06/24					
Antimony	555	ug/L		555.6	0.500	100	75-125	0.5	20
Arsenic	532	ug/L		555.6	ND	96	75-125	3	20
Barium	677	ug/L		555.6	154	94	75-125	0.4	20
Beryllium	541	ug/L		555.6	ND	97	75-125	2	20
Boron	570	ug/L		555.6	17.8	99	75-125	0.03	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B424039-MSD1)	**Sample: HA03433-02**			Prepared: 01/29/24 Analyzed: 02/05/24					
Cadmium	530	ug/L		555.6	ND	95	75-125	2	20
Calcium	154	mg/L	Q4	5.556	156	NR	75-125	0.9	20
Chromium	546	ug/L		555.6	ND	98	75-125	3	20
Cobalt	527	ug/L		555.6	ND	95	75-125	3	20
Lead	562	ug/L		555.6	ND	101	75-125	0.7	20
Magnesium	75.6	mg/L		5.556	71.2	79	75-125	0.4	20
Mercury	55.3	ug/L		55.56	ND	100	75-125	2	20
Molybdenum	527	ug/L		555.6	ND	95	75-125	3	20
Potassium	5.96	mg/L		5.556	0.348	101	75-125	0.2	20
Selenium	532	ug/L		555.6	ND	96	75-125	2	20
Sodium	19.4	mg/L		5.556	14.0	97	75-125	0.2	20
Thallium	541	ug/L		555.6	ND	97	75-125	0.3	20
Batch B424082 - No Prep - SM 2540C									
Blank (B424082-BLK1)				Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424082-BS1)				Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	1010	mg/L		1000		101	84.9-109		
Duplicate (B424082-DUP1)	**Sample: HA03433-05**			Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	585	mg/L			570			3	5
Duplicate (B424082-DUP2)	**Sample: HA03433-06**			Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	2220	mg/L	M		2440			9	5
Batch B424106 - No Prep - SM 2540C									
Blank (B424106-BLK1)				Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424106-BS1)				Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	977	mg/L		1000		98	84.9-109		
Duplicate (B424106-DUP1)	**Sample: HA03720-11**			Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	2660	mg/L			2540			5	5
Duplicate (B424106-DUP2)	**Sample: HA03720-12**			Prepared & Analyzed: 01/29/24					
Solids - total dissolved solids (TDS)	3800	mg/L	M		3500			8	5
Batch B424144 - SW 3015 - EPA 6010B									
Blank (B424144-BLK1)				Prepared: 01/30/24 Analyzed: 01/31/24					
Lithium	< 0.020	mg/L							
LCS (B424144-BS1)				Prepared: 01/30/24 Analyzed: 01/31/24					
Lithium	0.513	mg/L		0.5556		92	80-120		
Matrix Spike (B424144-MS1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 01/31/24					
Lithium	0.503	mg/L		0.5556	ND	91	75-125		
Matrix Spike Dup (B424144-MSD1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 01/31/24					
Lithium	0.510	mg/L		0.5556	ND	92	75-125	1	20
Batch B424144 - SW 3015 - EPA 6020A									
Blank (B424144-BLK1)				Prepared: 01/30/24 Analyzed: 02/06/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B424144-BLK1)				Prepared: 01/30/24 Analyzed: 02/06/24					
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B424144-BS1)				Prepared: 01/30/24 Analyzed: 02/06/24					
Antimony	541	ug/L		555.6		97	80-120		
Arsenic	545	ug/L		555.6		98	80-120		
Barium	542	ug/L		555.6		98	80-120		
Beryllium	562	ug/L		555.6		101	80-120		
Boron	554	ug/L		555.6		100	80-120		
Cadmium	552	ug/L		555.6		99	80-120		
Calcium	5.40	mg/L		5.556		97	80-120		
Chromium	557	ug/L		555.6		100	80-120		
Cobalt	569	ug/L		555.6		102	80-120		
Lead	568	ug/L		555.6		102	80-120		
Magnesium	5.61	mg/L		5.556		101	80-120		
Mercury	52.7	ug/L		55.56		95	80-120		
Molybdenum	517	ug/L		555.6		93	80-120		
Potassium	5.43	mg/L		5.556		98	80-120		
Selenium	540	ug/L		555.6		97	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
Thallium	544	ug/L		555.6		98	80-120		
Matrix Spike (B424144-MS1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 02/06/24					
Antimony	535	ug/L		555.6	ND	96	75-125		
Arsenic	552	ug/L		555.6	7.71	98	75-125		
Barium	751	ug/L		555.6	213	97	75-125		
Beryllium	576	ug/L		555.6	ND	104	75-125		
Boron	602	ug/L		555.6	45.0	100	75-125		
Cadmium	547	ug/L		555.6	ND	98	75-125		
Calcium	96.4	mg/L	Q4	5.556	94.2	40	75-125		
Chromium	554	ug/L		555.6	ND	100	75-125		
Cobalt	555	ug/L		555.6	ND	100	75-125		
Lead	545	ug/L		555.6	ND	98	75-125		
Magnesium	48.0	mg/L	Q4	5.556	44.1	71	75-125		
Mercury	53.7	ug/L		55.56	ND	97	75-125		
Molybdenum	526	ug/L		555.6	4.27	94	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B424144-MS1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 02/06/24					
Potassium	6.37	mg/L		5.556	0.968	97	75-125		
Selenium	535	ug/L		555.6	ND	96	75-125		
Sodium	58.2	mg/L	Q4	5.556	54.5	67	75-125		
Thallium	527	ug/L		555.6	ND	95	75-125		
Matrix Spike Dup (B424144-MSD1)	**Sample: HA03720-01**			Prepared: 01/30/24 Analyzed: 02/06/24					
Antimony	538	ug/L		555.6	ND	97	75-125	0.7	20
Arsenic	555	ug/L		555.6	7.71	98	75-125	0.5	20
Barium	761	ug/L		555.6	213	99	75-125	1	20
Beryllium	573	ug/L		555.6	ND	103	75-125	0.6	20
Boron	616	ug/L		555.6	45.0	103	75-125	2	20
Cadmium	546	ug/L		555.6	ND	98	75-125	0.09	20
Calcium	97.8	mg/L	Q4	5.556	94.2	64	75-125	1	20
Chromium	553	ug/L		555.6	ND	100	75-125	0.09	20
Cobalt	554	ug/L		555.6	ND	100	75-125	0.2	20
Lead	552	ug/L		555.6	ND	99	75-125	1	20
Magnesium	48.6	mg/L		5.556	44.1	82	75-125	1	20
Mercury	55.2	ug/L		55.56	ND	99	75-125	3	20
Molybdenum	525	ug/L		555.6	4.27	94	75-125	0.2	20
Potassium	6.44	mg/L		5.556	0.968	99	75-125	1	20
Selenium	536	ug/L		555.6	ND	97	75-125	0.2	20
Sodium	58.8	mg/L		5.556	54.5	77	75-125	1	20
Thallium	534	ug/L		555.6	ND	96	75-125	1	20
Batch B424278 - SW 3015 - EPA 6010B									
Blank (B424278-BLK1)				Prepared: 01/31/24 Analyzed: 02/05/24					
Lithium	< 0.020	mg/L							
LCS (B424278-BS1)				Prepared: 01/31/24 Analyzed: 02/05/24					
Lithium	0.504	mg/L		0.5556		91	80-120		
Matrix Spike (B424278-MS1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/05/24					
Lithium	0.511	mg/L		0.5556	ND	92	75-125		
Matrix Spike Dup (B424278-MSD1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/05/24					
Lithium	0.510	mg/L		0.5556	ND	92	75-125	0.3	20
Batch B424278 - SW 3015 - EPA 6020A									
Blank (B424278-BLK1)				Prepared: 01/31/24 Analyzed: 02/06/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B424278-BLK1)				Prepared: 01/31/24 Analyzed: 02/06/24					
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B424278-BS1)				Prepared: 01/31/24 Analyzed: 02/06/24					
Antimony	575	ug/L		555.6		104	80-120		
Arsenic	554	ug/L		555.6		100	80-120		
Barium	571	ug/L		555.6		103	80-120		
Beryllium	549	ug/L		555.6		99	80-120		
Boron	594	ug/L		555.6		107	80-120		
Cadmium	568	ug/L		555.6		102	80-120		
Calcium	5.92	mg/L		5.556		106	80-120		
Chromium	569	ug/L		555.6		102	80-120		
Cobalt	584	ug/L		555.6		105	80-120		
Lead	578	ug/L		555.6		104	80-120		
Magnesium	5.83	mg/L		5.556		105	80-120		
Mercury	53.0	ug/L		55.56		95	80-120		
Molybdenum	539	ug/L		555.6		97	80-120		
Potassium	5.82	mg/L		5.556		105	80-120		
Selenium	562	ug/L		555.6		101	80-120		
Sodium	5.86	mg/L		5.556		105	80-120		
Thallium	557	ug/L		555.6		100	80-120		
Matrix Spike (B424278-MS1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/06/24					
Antimony	542	ug/L		555.6	ND	98	75-125		
Arsenic	562	ug/L		555.6	1.50	101	75-125		
Barium	678	ug/L		555.6	131	98	75-125		
Beryllium	533	ug/L		555.6	ND	96	75-125		
Boron	544	ug/L		555.6	16.3	95	75-125		
Cadmium	558	ug/L		555.6	ND	100	75-125		
Calcium	130	mg/L		5.556	126	75	75-125		
Chromium	554	ug/L		555.6	ND	100	75-125		
Cobalt	556	ug/L		555.6	0.867	100	75-125		
Lead	550	ug/L		555.6	ND	99	75-125		
Magnesium	64.9	mg/L		5.556	60.6	77	75-125		
Mercury	54.6	ug/L		55.56	ND	98	75-125		
Molybdenum	538	ug/L		555.6	1.04	97	75-125		
Potassium	6.17	mg/L		5.556	0.782	97	75-125		
Selenium	552	ug/L		555.6	ND	99	75-125		
Sodium	16.3	mg/L		5.556	11.0	96	75-125		
Thallium	533	ug/L		555.6	ND	96	75-125		
Matrix Spike Dup (B424278-MSD1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/06/24					
Antimony	546	ug/L		555.6	ND	98	75-125	0.7	20
Arsenic	556	ug/L		555.6	1.50	100	75-125	1	20
Barium	677	ug/L		555.6	131	98	75-125	0.1	20
Beryllium	536	ug/L		555.6	ND	96	75-125	0.6	20
Boron	535	ug/L		555.6	16.3	93	75-125	2	20

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B424278-MSD1)	**Sample: HA03925-01**			Prepared: 01/31/24 Analyzed: 02/06/24					
Cadmium	548	ug/L		555.6	ND	99	75-125	2	20
Calcium	130	mg/L		5.556	126	81	75-125	0.2	20
Chromium	548	ug/L		555.6	ND	99	75-125	1	20
Cobalt	546	ug/L		555.6	0.867	98	75-125	2	20
Lead	549	ug/L		555.6	ND	99	75-125	0.3	20
Magnesium	65.2	mg/L		5.556	60.6	83	75-125	0.5	20
Mercury	55.0	ug/L		55.56	ND	99	75-125	0.9	20
Molybdenum	527	ug/L		555.6	1.04	95	75-125	2	20
Potassium	6.16	mg/L		5.556	0.782	97	75-125	0.2	20
Selenium	542	ug/L		555.6	ND	98	75-125	2	20
Sodium	16.3	mg/L		5.556	11.0	97	75-125	0.2	20
Thallium	530	ug/L		555.6	ND	95	75-125	0.5	20
Batch B424281 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424281-CCB1)				Prepared & Analyzed: 01/30/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B424281-CCV1)				Prepared & Analyzed: 01/30/24					
Chloride	4.94	mg/L		5.000		99	90-110		
Sulfate	4.97	mg/L		5.000		99	90-110		
Batch B424290 - No Prep - SM 2540C									
Blank (B424290-BLK1)				Prepared & Analyzed: 01/31/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424290-BS1)				Prepared & Analyzed: 01/31/24					
Solids - total dissolved solids (TDS)	613	mg/L	BS1	1000		61	84.9-109		
Duplicate (B424290-DUP1)	**Sample: HA03925-04**			Prepared & Analyzed: 01/31/24					
Solids - total dissolved solids (TDS)	1860	mg/L	M		2040			9	5
Duplicate (B424290-DUP2)	**Sample: HA03925-07**			Prepared & Analyzed: 01/31/24					
Solids - total dissolved solids (TDS)	875	mg/L	M		780			11	5
Batch B424357 - SW 3015 - EPA 6010B									
Blank (B424357-BLK1)				Prepared: 02/01/24 Analyzed: 02/05/24					
Lithium	< 0.020	mg/L							
LCS (B424357-BS1)				Prepared: 02/01/24 Analyzed: 02/05/24					
Lithium	0.509	mg/L		0.5556		92	80-120		
Matrix Spike (B424357-MS1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/05/24					
Lithium	0.507	mg/L		0.5556	ND	91	75-125		
Matrix Spike Dup (B424357-MSD1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/05/24					
Lithium	0.503	mg/L		0.5556	ND	90	75-125	0.8	20
Batch B424357 - SW 3015 - EPA 6020A									
Blank (B424357-BLK1)				Prepared: 02/01/24 Analyzed: 02/06/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B424357-BLK1)				Prepared: 02/01/24 Analyzed: 02/05/24					
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B424357-BS1)				Prepared: 02/01/24 Analyzed: 02/06/24					
Antimony	536	ug/L		555.6		96	80-120		
Arsenic	530	ug/L		555.6		95	80-120		
Barium	547	ug/L		555.6		98	80-120		
Beryllium	575	ug/L		555.6		103	80-120		
Boron	579	ug/L		555.6		104	80-120		
Cadmium	546	ug/L		555.6		98	80-120		
Calcium	5.55	mg/L		5.556		100	80-120		
Chromium	558	ug/L		555.6		101	80-120		
Cobalt	569	ug/L		555.6		102	80-120		
Lead	561	ug/L		555.6		101	80-120		
Magnesium	5.77	mg/L		5.556		104	80-120		
Mercury	52.8	ug/L		55.56		95	80-120		
Molybdenum	512	ug/L		555.6		92	80-120		
Potassium	5.61	mg/L		5.556		101	80-120		
Selenium	536	ug/L		555.6		96	80-120		
Sodium	5.67	mg/L		5.556		102	80-120		
Thallium	541	ug/L		555.6		97	80-120		
Matrix Spike (B424357-MS1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/06/24					
Antimony	532	ug/L		555.6	ND	96	75-125		
Arsenic	552	ug/L		555.6	5.75	98	75-125		
Barium	718	ug/L		555.6	171	98	75-125		
Beryllium	583	ug/L		555.6	ND	105	75-125		
Cadmium	556	ug/L		555.6	ND	100	75-125		
Calcium	103	mg/L		5.556	97.4	94	75-125		
Chromium	565	ug/L		555.6	ND	102	75-125		
Cobalt	566	ug/L		555.6	ND	102	75-125		
Lead	556	ug/L		555.6	0.278	100	75-125		
Magnesium	41.9	mg/L		5.556	36.7	93	75-125		
Mercury	53.6	ug/L		55.56	0.244	96	75-125		
Molybdenum	532	ug/L		555.6	ND	96	75-125		
Potassium	6.34	mg/L		5.556	0.843	99	75-125		
Selenium	544	ug/L		555.6	ND	98	75-125		
Sodium	19.5	mg/L		5.556	13.9	100	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B424357-MS1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/06/24					
Thallium	540	ug/L		555.6	ND	97	75-125		
Matrix Spike Dup (B424357-MSD1)	**Sample: HA04058-01**			Prepared: 02/01/24 Analyzed: 02/06/24					
Antimony	533	ug/L		555.6	ND	96	75-125	0.1	20
Arsenic	543	ug/L		555.6	5.75	97	75-125	2	20
Barium	710	ug/L		555.6	171	97	75-125	1	20
Beryllium	579	ug/L		555.6	ND	104	75-125	0.7	20
Cadmium	546	ug/L		555.6	ND	98	75-125	2	20
Calcium	102	mg/L		5.556	97.4	88	75-125	0.3	20
Chromium	554	ug/L		555.6	ND	100	75-125	2	20
Cobalt	557	ug/L		555.6	ND	100	75-125	2	20
Lead	552	ug/L		555.6	0.278	99	75-125	0.7	20
Magnesium	41.6	mg/L		5.556	36.7	88	75-125	0.6	20
Mercury	53.8	ug/L		55.56	0.244	96	75-125	0.3	20
Molybdenum	521	ug/L		555.6	ND	94	75-125	2	20
Potassium	6.27	mg/L		5.556	0.843	98	75-125	1	20
Selenium	533	ug/L		555.6	ND	96	75-125	2	20
Sodium	19.4	mg/L		5.556	13.9	98	75-125	0.7	20
Thallium	536	ug/L		555.6	ND	97	75-125	0.7	20
Batch B424388 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424388-CCB1)				Prepared & Analyzed: 01/31/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B424388-CCV1)				Prepared & Analyzed: 01/31/24					
Sulfate	5.14	mg/L		5.000		103	90-110		
Chloride	4.95	mg/L		5.000		99	90-110		
Matrix Spike (B424388-MS1)	**Sample: HA04272-04**			Prepared & Analyzed: 01/31/24					
Sulfate	1.00E9	mg/L	Q4	1.500	861	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	530	NR	80-120		
Matrix Spike Dup (B424388-MSD1)	**Sample: HA04272-04**			Prepared & Analyzed: 01/31/24					
Sulfate	1.00E9	mg/L	Q4	1.500	861	NR	80-120	0	20
Chloride	< 1.0	mg/L	Q4	1.500	530	NR	80-120		20
Batch B424390 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424390-CCB1)				Prepared & Analyzed: 01/31/24					
Chloride	0.130	mg/L							
Calibration Blank (B424390-CCB2)				Prepared & Analyzed: 01/31/24					
Chloride	0.198	mg/L							
Calibration Check (B424390-CCV1)				Prepared & Analyzed: 01/31/24					
Chloride	5.01	mg/L		5.000		100	90-110		
Calibration Check (B424390-CCV2)				Prepared & Analyzed: 01/31/24					
Chloride	4.87	mg/L		5.000		97	90-110		
Matrix Spike (B424390-MS1)	**Sample: HA03433-02**			Prepared & Analyzed: 01/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	36	NR	80-120		
Matrix Spike (B424390-MS2)	**Sample: HA03433-03**			Prepared & Analyzed: 01/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	20	NR	80-120		
Matrix Spike Dup (B424390-MSD1)	**Sample: HA03433-02**			Prepared & Analyzed: 01/31/24					

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike Dup (B424390-MSD1)	**Sample: HA03433-02**			Prepared & Analyzed: 01/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	36	NR	80-120	0	20
Matrix Spike Dup (B424390-MSD2)	**Sample: HA03433-03**			Prepared & Analyzed: 01/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	20	NR	80-120	0	20
Batch B424396 - No Prep - SM 2540C									
Blank (B424396-BLK1)				Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424396-BS1)				Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.9-109		
Duplicate (B424396-DUP1)	**Sample: HA04058-06**			Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	1780	mg/L			1730			3	5
Duplicate (B424396-DUP2)	**Sample: HA04058-07**			Prepared & Analyzed: 02/01/24					
Solids - total dissolved solids (TDS)	2000	mg/L	M		2130			6	5
Batch B424513 - No Prep - SM 2540C									
Blank (B424513-BLK1)				Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424513-BS1)				Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	977	mg/L		1000		98	84.9-109		
Duplicate (B424513-DUP1)	**Sample: HA03925-07RE1**			Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	815	mg/L	M		765			6	5
Duplicate (B424513-DUP2)	**Sample: HA03925-10RE1**			Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	710	mg/L			715			0.7	5
Batch B424514 - No Prep - SM 2540C									
Blank (B424514-BLK1)				Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424514-BS1)				Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	910	mg/L		1000		91	84.9-109		
Duplicate (B424514-DUP1)	**Sample: HA04058-01**			Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	350	mg/L			345			1	5
Duplicate (B424514-DUP2)	**Sample: HA04058-04**			Prepared & Analyzed: 02/02/24					
Solids - total dissolved solids (TDS)	1300	mg/L			1260			4	5
Batch B424521 - No Prep - SM 4500F C 1997									
Calibration Blank (B424521-CCB1)				Prepared & Analyzed: 02/02/24					
Fluoride	0.0180	mg/L							
Calibration Blank (B424521-CCB2)				Prepared & Analyzed: 02/02/24					
Fluoride	0.0180	mg/L							
Calibration Check (B424521-CCV1)				Prepared & Analyzed: 02/02/24					
Fluoride	0.678	mg/L		0.7000		97	90-110		
Calibration Check (B424521-CCV2)				Prepared & Analyzed: 02/02/24					
Fluoride	0.694	mg/L		0.7000		99	90-110		
Matrix Spike (B424521-MS2)	**Sample: HA03720-13**			Prepared & Analyzed: 02/02/24					
Fluoride	1.22	mg/L		1.000	0.205	101	80-120		
Matrix Spike Dup (B424521-MSD2)	**Sample: HA03720-13**			Prepared & Analyzed: 02/02/24					
Fluoride	1.23	mg/L		1.000	0.205	103	80-120	1	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B424553 - No Prep - SM 2320B 1997									
Duplicate (B424553-DUP1)	**Sample: HA03433-06**			Prepared & Analyzed: 02/02/24					
Alkalinity - bicarbonate as CaCO3	438	mg/L			412			6	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B424553-DUP2)	**Sample: HA03433-02**			Prepared & Analyzed: 02/02/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	488	mg/L			500			3	10
Batch B424604 - SW 3015 - EPA 6010B									
Blank (B424604-BLK1)				Prepared: 02/05/24 Analyzed: 02/09/24					
Lithium	< 0.020	mg/L							
LCS (B424604-BS1)				Prepared: 02/05/24 Analyzed: 02/09/24					
Lithium	0.529	mg/L		0.5556		95	80-120		
Batch B424604 - SW 3015 - EPA 6020A									
Blank (B424604-BLK1)				Prepared: 02/05/24 Analyzed: 02/06/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B424604-BS1)				Prepared: 02/05/24 Analyzed: 02/06/24					
Antimony	541	ug/L		555.6		97	80-120		
Arsenic	541	ug/L		555.6		97	80-120		
Barium	548	ug/L		555.6		99	80-120		
Beryllium	587	ug/L		555.6		106	80-120		
Boron	571	ug/L		555.6		103	80-120		
Cadmium	550	ug/L		555.6		99	80-120		
Calcium	5.61	mg/L		5.556		101	80-120		
Chromium	565	ug/L		555.6		102	80-120		
Cobalt	571	ug/L		555.6		103	80-120		
Lead	571	ug/L		555.6		103	80-120		
Magnesium	5.76	mg/L		5.556		104	80-120		
Mercury	52.6	ug/L		55.56		95	80-120		
Molybdenum	517	ug/L		555.6		93	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B424604-BS1)				Prepared: 02/05/24 Analyzed: 02/06/24					
Potassium	5.48	mg/L		5.556		99	80-120		
Selenium	538	ug/L		555.6		97	80-120		
Sodium	5.82	mg/L		5.556		105	80-120		
Thallium	546	ug/L		555.6		98	80-120		
Matrix Spike (B424604-MS1)	**Sample: HA04272-01**			Prepared: 02/05/24 Analyzed: 02/06/24					
Antimony	547	ug/L		555.6	ND	98	75-125		
Arsenic	553	ug/L		555.6	ND	100	75-125		
Barium	625	ug/L		555.6	78.2	98	75-125		
Beryllium	587	ug/L		555.6	ND	106	75-125		
Boron	753	ug/L		555.6	127	113	75-125		
Cadmium	556	ug/L		555.6	ND	100	75-125		
Calcium	108	mg/L		5.556	101	113	75-125		
Chromium	567	ug/L		555.6	ND	102	75-125		
Cobalt	562	ug/L		555.6	0.822	101	75-125		
Lead	569	ug/L		555.6	0.278	102	75-125		
Magnesium	50.7	mg/L		5.556	45.2	99	75-125		
Mercury	54.4	ug/L		55.56	0.333	97	75-125		
Molybdenum	531	ug/L		555.6	ND	96	75-125		
Potassium	5.81	mg/L		5.556	0.254	100	75-125		
Selenium	547	ug/L		555.6	ND	98	75-125		
Sodium	14.0	mg/L		5.556	8.14	105	75-125		
Thallium	547	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B424604-MSD1)	**Sample: HA04272-01**			Prepared: 02/05/24 Analyzed: 02/06/24					
Antimony	542	ug/L		555.6	ND	98	75-125	0.8	20
Arsenic	545	ug/L		555.6	ND	98	75-125	1	20
Barium	610	ug/L		555.6	78.2	96	75-125	2	20
Beryllium	577	ug/L		555.6	ND	104	75-125	2	20
Boron	743	ug/L		555.6	127	111	75-125	1	20
Cadmium	549	ug/L		555.6	ND	99	75-125	1	20
Calcium	106	mg/L		5.556	101	81	75-125	2	20
Chromium	559	ug/L		555.6	ND	101	75-125	1	20
Cobalt	556	ug/L		555.6	0.822	100	75-125	1	20
Lead	561	ug/L		555.6	0.278	101	75-125	1	20
Magnesium	50.2	mg/L		5.556	45.2	89	75-125	1	20
Mercury	53.7	ug/L		55.56	0.333	96	75-125	1	20
Molybdenum	525	ug/L		555.6	ND	94	75-125	1	20
Potassium	5.70	mg/L		5.556	0.254	98	75-125	2	20
Selenium	536	ug/L		555.6	ND	96	75-125	2	20
Sodium	13.8	mg/L		5.556	8.14	102	75-125	1	20
Thallium	537	ug/L		555.6	ND	97	75-125	2	20
Batch B424611 - No Prep - SM 2540C									
Blank (B424611-BLK1)				Prepared & Analyzed: 02/05/24					
Solids - total dissolved solids (TDS)	53.3	mg/L							
LCS (B424611-BS1)				Prepared & Analyzed: 02/05/24					
Solids - total dissolved solids (TDS)	1020	mg/L		1000		102	84.9-109		
Duplicate (B424611-DUP1)	**Sample: HA04272-04**			Prepared & Analyzed: 02/05/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B424611-DUP1)	**Sample: HA04272-04**			Prepared & Analyzed: 02/05/24					
Solids - total dissolved solids (TDS)	2340	mg/L			2320			0.6	5
Duplicate (B424611-DUP2)	**Sample: HA04272-07**			Prepared & Analyzed: 02/05/24					
Solids - total dissolved solids (TDS)	1310	mg/L			1240			5	5
Batch B424635 - No Prep - SM 2540C									
Blank (B424635-BLK1)				Prepared & Analyzed: 02/05/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B424635-BS1)				Prepared & Analyzed: 02/05/24					
Solids - total dissolved solids (TDS)	923	mg/L		1000		92	84.9-109		
Batch B424757 - No Prep - SM 4500F C 1997									
Calibration Blank (B424757-CCB1)				Prepared & Analyzed: 02/06/24					
Fluoride	0.00700	mg/L							
Calibration Blank (B424757-CCB2)				Prepared & Analyzed: 02/06/24					
Fluoride	0.0140	mg/L							
Calibration Check (B424757-CCV1)				Prepared & Analyzed: 02/06/24					
Fluoride	0.686	mg/L		0.7000		98	90-110		
Calibration Check (B424757-CCV2)				Prepared & Analyzed: 02/06/24					
Fluoride	0.699	mg/L		0.7000		100	90-110		
Matrix Spike (B424757-MS1)	**Sample: HA04098-01**			Prepared & Analyzed: 02/06/24					
Fluoride	1.66	mg/L		1.000	0.618	104	80-120		
Matrix Spike (B424757-MS9)	**Sample: HA03433-10**			Prepared & Analyzed: 02/06/24					
Fluoride	1.16	mg/L		1.000	0.143	102	80-120		
Matrix Spike Dup (B424757-MSD1)	**Sample: HA04098-01**			Prepared & Analyzed: 02/06/24					
Fluoride	1.66	mg/L		1.000	0.618	104	80-120	0.2	20
Matrix Spike Dup (B424757-MSD9)	**Sample: HA03433-10**			Prepared & Analyzed: 02/06/24					
Fluoride	1.14	mg/L		1.000	0.143	100	80-120	2	20
Batch B424779 - No Prep - SM 2320B 1997									
Duplicate (B424779-DUP1)	**Sample: HA03720-01**			Prepared & Analyzed: 02/06/24					
Alkalinity - bicarbonate as CaCO3	488	mg/L			475			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B424779-DUP2)	**Sample: HA03720-11**			Prepared & Analyzed: 02/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	662	mg/L			638			4	10
Duplicate (B424779-DUP4)	**Sample: HA03925-11**			Prepared & Analyzed: 02/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	388	mg/L			388			0	10
Duplicate (B424779-DUP6)	**Sample: HA04058-01**			Prepared & Analyzed: 02/06/24					
Alkalinity - bicarbonate as CaCO3	438	mg/L			400			9	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B424779-DUP7)	**Sample: HA03925-01**			Prepared & Analyzed: 02/06/24					
Alkalinity - bicarbonate as CaCO3	400	mg/L			388			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B424890 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424890-CCB1)				Prepared & Analyzed: 02/06/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B424890-CCB1)				Prepared & Analyzed: 02/06/24					
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B424890-CCV1)				Prepared & Analyzed: 02/06/24					
Sulfate	5.18	mg/L		5.000		104	90-110		
Fluoride	5.26	mg/L		5.000		105	90-110		
Batch B424971 - SW 3015 - EPA 6010B									
Blank (B424971-BLK1)				Prepared: 02/08/24 Analyzed: 02/09/24					
Lithium	< 0.020	mg/L							
LCS (B424971-BS1)				Prepared: 02/08/24 Analyzed: 02/09/24					
Lithium	0.525	mg/L		0.5556		94	80-120		
Matrix Spike (B424971-MS1)	**Sample: HB00819-01**			Prepared: 02/08/24 Analyzed: 02/09/24					
Lithium	0.514	mg/L		0.5556	ND	93	75-125		
Matrix Spike Dup (B424971-MSD1)	**Sample: HB00819-01**			Prepared: 02/08/24 Analyzed: 02/09/24					
Lithium	0.522	mg/L		0.5556	ND	94	75-125	1	20
Batch B424971 - SW 3015 - EPA 6020A									
Blank (B424971-BLK1)				Prepared: 02/08/24 Analyzed: 02/15/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B424971-BS1)				Prepared: 02/08/24 Analyzed: 02/15/24					
Antimony	518	ug/L		555.6		93	80-120		
Arsenic	546	ug/L		555.6		98	80-120		
Barium	538	ug/L		555.6		97	80-120		
Beryllium	562	ug/L		555.6		101	80-120		
Boron	502	ug/L		555.6		90	80-120		
Cadmium	549	ug/L		555.6		99	80-120		
Calcium	5.64	mg/L		5.556		102	80-120		
Chromium	551	ug/L		555.6		99	80-120		
Cobalt	538	ug/L		555.6		97	80-120		
Lead	551	ug/L		555.6		99	80-120		
Magnesium	5.74	mg/L		5.556		103	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B424971-BS1)				Prepared: 02/08/24 Analyzed: 02/15/24					
Mercury	54.0	ug/L		55.56		97	80-120		
Molybdenum	526	ug/L		555.6		95	80-120		
Potassium	5.47	mg/L		5.556		98	80-120		
Selenium	537	ug/L		555.6		97	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Thallium	521	ug/L		555.6		94	80-120		
Matrix Spike (B424971-MS1)	**Sample: HB00819-01**			Prepared: 02/08/24 Analyzed: 02/15/24					
Antimony	523	ug/L		555.6	0.483	94	75-125		
Arsenic	556	ug/L		555.6	ND	100	75-125		
Barium	561	ug/L		555.6	19.8	97	75-125		
Beryllium	512	ug/L		555.6	ND	92	75-125		
Boron	753	ug/L		555.6	226	95	75-125		
Cadmium	544	ug/L		555.6	ND	98	75-125		
Calcium	570	mg/L		5.556	572	NR	75-125		
Chromium	552	ug/L		555.6	ND	99	75-125		
Cobalt	539	ug/L		555.6	14.0	95	75-125		
Lead	524	ug/L		555.6	0.506	94	75-125		
Magnesium	245	mg/L	Q4	5.556	244	15	75-125		
Mercury	55.2	ug/L		55.56	ND	99	75-125		
Molybdenum	548	ug/L		555.6	ND	99	75-125		
Potassium	6.35	mg/L		5.556	0.883	98	75-125		
Selenium	545	ug/L		555.6	ND	98	75-125		
Sodium	34.3	mg/L		5.556	29.4	88	75-125		
Thallium	499	ug/L		555.6	ND	90	75-125		
Matrix Spike Dup (B424971-MSD1)	**Sample: HB00819-01**			Prepared: 02/08/24 Analyzed: 02/15/24					
Antimony	527	ug/L		555.6	0.483	95	75-125	0.7	20
Arsenic	556	ug/L		555.6	ND	100	75-125	0.03	20
Barium	563	ug/L		555.6	19.8	98	75-125	0.4	20
Beryllium	509	ug/L		555.6	ND	92	75-125	0.7	20
Boron	755	ug/L		555.6	226	95	75-125	0.3	20
Cadmium	541	ug/L		555.6	ND	97	75-125	0.5	20
Calcium	566	mg/L		5.556	572	NR	75-125	0.7	20
Chromium	551	ug/L		555.6	ND	99	75-125	0.2	20
Cobalt	543	ug/L		555.6	14.0	95	75-125	0.7	20
Lead	530	ug/L		555.6	0.506	95	75-125	1	20
Magnesium	244	mg/L	Q4	5.556	244	NR	75-125	0.5	20
Mercury	55.9	ug/L		55.56	ND	101	75-125	1	20
Molybdenum	546	ug/L		555.6	ND	98	75-125	0.2	20
Potassium	6.25	mg/L		5.556	0.883	97	75-125	2	20
Selenium	546	ug/L		555.6	ND	98	75-125	0.3	20
Sodium	33.9	mg/L		5.556	29.4	82	75-125	1	20
Thallium	503	ug/L		555.6	ND	91	75-125	0.8	20
Batch B424989 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B424989-CCB1)				Prepared & Analyzed: 02/07/24					
Sulfate	0.00	mg/L							
Chloride	0.0446	mg/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B424989-CCB2)				Prepared & Analyzed: 02/07/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B424989-CCV1)				Prepared & Analyzed: 02/07/24					
Sulfate	5.18	mg/L		5.000		104	90-110		
Chloride	5.09	mg/L		5.000		102	90-110		
Calibration Check (B424989-CCV2)				Prepared & Analyzed: 02/07/24					
Chloride	4.99	mg/L		5.000		100	90-110		
Sulfate	5.03	mg/L		5.000		101	90-110		
Matrix Spike (B424989-MS1)	**Sample: HB00819-01**			Prepared & Analyzed: 02/07/24					
Chloride	1.0E9	mg/L	Q4	1.500	37	NR	80-120		
Sulfate	< 1.0	mg/L	Q4	1.500	1980	NR	80-120		
Matrix Spike Dup (B424989-MSD1)	**Sample: HB00819-01**			Prepared & Analyzed: 02/07/24					
Chloride	1.0E9	mg/L	Q4	1.500	37	NR	80-120	0	20
Sulfate	< 1.0	mg/L	Q4	1.500	1980	NR	80-120		20
Batch B425038 - No Prep - SM 2540C									
Blank (B425038-BLK1)				Prepared & Analyzed: 02/08/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B425038-BS1)				Prepared & Analyzed: 02/08/24					
Solids - total dissolved solids (TDS)	950	mg/L		1000		95	84.9-109		
Batch B425065 - No Prep - SM 4500F C 1997									
Calibration Blank (B425065-CCB1)				Prepared & Analyzed: 02/08/24					
Fluoride	0.0150	mg/L							
Calibration Blank (B425065-CCB2)				Prepared & Analyzed: 02/08/24					
Fluoride	0.0180	mg/L							
Calibration Check (B425065-CCV1)				Prepared & Analyzed: 02/08/24					
Fluoride	0.691	mg/L		0.7000		99	90-110		
Calibration Check (B425065-CCV2)				Prepared & Analyzed: 02/08/24					
Fluoride	0.697	mg/L		0.7000		100	90-110		
Matrix Spike (B425065-MS1)	**Sample: HA04058-04**			Prepared & Analyzed: 02/08/24					
Fluoride	1.25	mg/L		1.000	0.242	100	80-120		
Matrix Spike (B425065-MS2)	**Sample: HB00819-01**			Prepared & Analyzed: 02/08/24					
Fluoride	1.19	mg/L		1.000	0.158	103	80-120		
Matrix Spike Dup (B425065-MSD1)	**Sample: HA04058-04**			Prepared & Analyzed: 02/08/24					
Fluoride	1.24	mg/L		1.000	0.242	100	80-120	0.5	20
Matrix Spike Dup (B425065-MSD2)	**Sample: HB00819-01**			Prepared & Analyzed: 02/08/24					
Fluoride	1.18	mg/L		1.000	0.158	103	80-120	0.7	20
Batch B425311 - No Prep - SM 2540C									
Blank (B425311-BLK1)				Prepared & Analyzed: 02/12/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B425311-BS1)				Prepared & Analyzed: 02/12/24					
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.9-109		
Duplicate (B425311-DUP1)	**Sample: HB00819-01**			Prepared & Analyzed: 02/12/24					
Solids - total dissolved solids (TDS)	3300	mg/L			3350			2	5

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B425438 - No Prep - SM 2320B 1997									
Duplicate (B425438-DUP2)	**Sample: HB00819-01**			Prepared & Analyzed: 02/13/24					
Alkalinity - bicarbonate as CaCO3	575	mg/L			525			9	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B427316 - SW 3015 - EPA 6010B									
Blank (B427316-BLK1)				Prepared: 03/07/24 Analyzed: 03/08/24					
Lithium	< 0.020	mg/L							
LCS (B427316-BS1)				Prepared: 03/07/24 Analyzed: 03/08/24					
Lithium	0.581	mg/L		0.5556		104	80-120		
Matrix Spike (B427316-MS1)	**Sample: HA04272-05RE1**			Prepared: 03/07/24 Analyzed: 03/08/24					
Lithium	0.576	mg/L		0.5556	0.0140	101	75-125		
Matrix Spike Dup (B427316-MSD1)	**Sample: HA04272-05RE1**			Prepared: 03/07/24 Analyzed: 03/08/24					
Lithium	0.578	mg/L		0.5556	0.0140	102	75-125	0.3	20
Batch B427316 - SW 3015 - EPA 6020A									
Blank (B427316-BLK1)				Prepared: 03/07/24 Analyzed: 03/08/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B427316-BS1)				Prepared: 03/07/24 Analyzed: 03/08/24					
Antimony	543	ug/L		555.6		98	80-120		
Arsenic	540	ug/L		555.6		97	80-120		
Barium	557	ug/L		555.6		100	80-120		
Beryllium	567	ug/L		555.6		102	80-120		
Boron	549	ug/L		555.6		99	80-120		
Cadmium	557	ug/L		555.6		100	80-120		
Calcium	5.62	mg/L		5.556		101	80-120		
Chromium	555	ug/L		555.6		100	80-120		
Cobalt	557	ug/L		555.6		100	80-120		
Lead	553	ug/L		555.6		100	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Mercury	51.4	ug/L		55.56		93	80-120		

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

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B427316-BS1)				Prepared: 03/07/24 Analyzed: 03/08/24					
Molybdenum	532	ug/L		555.6		96	80-120		
Potassium	5.67	mg/L		5.556		102	80-120		
Selenium	554	ug/L		555.6		100	80-120		
Sodium	5.80	mg/L		5.556		104	80-120		
Thallium	555	ug/L		555.6		100	80-120		
Matrix Spike (B427316-MS1)	**Sample: HA04272-05RE1**			Prepared: 03/07/24 Analyzed: 03/08/24					
Antimony	547	ug/L		555.6	ND	99	75-125		
Arsenic	555	ug/L		555.6	3.68	99	75-125		
Barium	577	ug/L		555.6	20.1	100	75-125		
Beryllium	554	ug/L		555.6	ND	100	75-125		
Cadmium	556	ug/L		555.6	ND	100	75-125		
Calcium	490	mg/L		5.556	484	103	75-125		
Chromium	563	ug/L		555.6	ND	101	75-125		
Cobalt	544	ug/L		555.6	ND	98	75-125		
Lead	541	ug/L		555.6	0.294	97	75-125		
Magnesium	173	mg/L		5.556	167	108	75-125		
Mercury	56.2	ug/L		55.56	ND	101	75-125		
Molybdenum	562	ug/L		555.6	5.49	100	75-125		
Potassium	10.5	mg/L		5.556	4.83	102	75-125		
Selenium	551	ug/L		555.6	ND	99	75-125		
Sodium	145	mg/L	Q4	5.556	137	142	75-125		
Thallium	546	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B427316-MSD1)	**Sample: HA04272-05RE1**			Prepared: 03/07/24 Analyzed: 03/08/24					
Antimony	551	ug/L		555.6	ND	99	75-125	0.7	20
Arsenic	554	ug/L		555.6	3.68	99	75-125	0.2	20
Barium	581	ug/L		555.6	20.1	101	75-125	0.7	20
Beryllium	559	ug/L		555.6	ND	101	75-125	0.9	20
Cadmium	562	ug/L		555.6	ND	101	75-125	1	20
Calcium	486	mg/L	Q4	5.556	484	44	75-125	0.7	20
Chromium	564	ug/L		555.6	ND	102	75-125	0.3	20
Cobalt	550	ug/L		555.6	ND	99	75-125	1	20
Lead	544	ug/L		555.6	0.294	98	75-125	0.6	20
Magnesium	171	mg/L		5.556	167	84	75-125	0.8	20
Mercury	56.9	ug/L		55.56	ND	102	75-125	1	20
Molybdenum	566	ug/L		555.6	5.49	101	75-125	0.7	20
Potassium	10.5	mg/L		5.556	4.83	102	75-125	0.2	20
Selenium	555	ug/L		555.6	ND	100	75-125	0.8	20
Sodium	144	mg/L	Q4	5.556	137	127	75-125	0.6	20
Thallium	551	ug/L		555.6	ND	99	75-125	1	20

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

B2	Contamination does not impact data since sample result is greater than ten times the contamination level found in the blank.
BS1	Blank Spike recovery exceeds the acceptance criteria. Sample result is less than the method reporting limit.
H	Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.
M	Analyte failed to meet the required acceptance criteria for duplicate analysis.
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

Duck Creek

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

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

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

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

Water Column Length: ft

Well Water Volume: Gal / L Total Drawdown: ft

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

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 25.15 ft

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

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT G65S **Purge Method:** Bladder

Date: 2/6/2024 Start Time: 1200 Finish/Sample Time: 1245

Well Depth (Bottom) From MP: 35.10 ft Min. Purge Volume: 3000 Gal / L (mL)

Depth to Water From MP: 20.89 ft Total Purge Volume: 3000 Gal / L (mL)

Water Column Length: _____ ft

Well Water Volume: _____ Gal / L Total Drawdown: _____ ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1238	22.15	100	6.64		9.46			
2	1241	22.16	100	6.60		9.49			
3	1244	22.17	100	6.62		9.54			
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 22.17 ft

Comments _____

Sampler's Signature: _____

Multiparameter Meter Field Calibration Checklist

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

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 10:21			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:20				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	1.9	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	Andrew Wilson	Date:	2/6/24

HA03433

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

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

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

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	EQUIPMENT BLANK #3	WT	G	1/24/24	1456		4	2		2																		
2	~~6605~~ G615 1/24/24 dcb	WT	G	1/24/24	1129	5	5	2		3																		
3	G565	WT	G	1/24/24	1148	4	2			2																		
4	G585	WT	G	1/24/24	1307	4	2			2																		
5	G595	WT	G	1/24/24	1404	4	2			2																		
6	OR14D	WT	G	1/24/24	1435	11	~~12~~	2	6	3																		
7	OR04D	WT	G	1/24/24	1254		11	2	6	3																		
8	OM045	WT	G	1/24/24	1210		11	2	6	3																		
9	G635	WT	G	1/24/24	1318		5	2		3																		
10	~~6605~~ G615 1/24/24 dcb	WT	G	1/24/24	1143		5	2		3																		
11	EQUIPMENT BLANK #4 dcb			1/24/24	1505		11	2	6	3																		
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		1/24/24	1615							
					1/24/24	1615	2.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan Ross

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 1/24/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Confidential

HA03720

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other
1	BAR2	WT	G	1/25/24	1439		4	X		X					
2	BAR3				1325		4	X		X					
3	BAR3L				1219		4	X		X					
4	GW0L			1/25/24	~~1332~~ 1332		5	X		X					
5	GW0S				1221		5	X		X					
6	GW2L			1/25/24	~~1507~~ 1515		5	X		X					
7	GW4S				1440		5	X		X					
8	GW5S				1120		4	X		X					
9	GW7S				1252		4	X		X					
10	OR030				1451		11	X	X	X					
11	OM2				1340		11	X	X	X					
12	OM220				1140		11	X	X	X					
13	OM230				1236		11	X	X	X					
14	EB/5				1515		11	X	X	X					
15	EB/6				1530		5	X		X					
16															

Requested Analysis Filtered (Y/N)

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0	Austin Moore / Race	01/25/24	1633		1/25/24	1633	3	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: AM, AP, JR, AW, JB

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 01/25/24

HA03925 ZC

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA01	WT	G	1/26/24	1222		4	X		X																			
2	BA01 Dup	WT	G	1/26/24	1222		4	X		X																			
3	BA04	WT	G	1/26/24	1338		4	X		X																			
4	BA06	WT	G	1/26/24	1453		4	X		X																			
5	G125	WT	G	1/26/24	1247		3	X		X																			
6	G155	WT	G	1/26/24	1150		3	X		X																			
7	G532	WT	G	1/26/24	1140		4	X		X																			
8	G535	WT	G	1/26/24	1240		4	X		X																			
9	G575	WT	G	1/26/24	1424		5	X		X																			
10	L103	WT	G	1/26/24	1059		2	X		X																			
11	OM07	WT	G	1/26/24	1354		11	X	X	X																			
12	OR11	WP	G	1/26/24	1210		11	X	X	X																			
13	OR11 Dup	WT	G	1/26/24	1210		11	X	X	X																			
14	OR20	WT	G	1/26/24	1300		11	X	X	X																			
15	P372	WT	G	1/26/24	1403		2	X		X																			
16	Equipment Blank 1	WT	G	1/26/24	1430		11	X	X	X																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		1/26/24	1604							
					1/26/24	1604	5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Remberton

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

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: of

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

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

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
								Requested Analysis Filtered (Y/N)																							
1	GO25	WT	G	1/29/24	1433		4	X		X																				
2	GSSL	WT	G	1/29/24	1117		4	X		X																				
3	GG7L	WT	G	1/29/24	1305		4	X		X																				
4	OM12	WT	G	1/29/24	1300		11	X	X	X																				
5	OM16	WT	G	1/29/24	1150		11	X	X	X																				
6	~~OE10-5~~ OR135	WT	G	1/29/24	1500		11	X	X	X																				
7	OR19	WT	G	1/29/24	1400		11	X	X	X																				
8	EB8	WT	G	1/29/24	1515		11	X	X	X																				
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

HA04058
JDS1

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Lambert
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 01/29/24

COURIER

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HA04272

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

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

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		1/30/24	1703							
					1/30/24	1703	6.8	Y	N	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Aaron Remberton			
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	01/30/24	

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

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HB000518

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER / WATER / WASTE WATER / PRODUCT / SOIL/SOLID / OIL / WIPE / AIR / OTHER / TISSUE

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB, C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA02L	WT	G	2/6/24	1440	4	X		X																		
2	BA05	WT	G	2/5/24	1329	4	X		X																		
3	OMW7	WT	G	2/5/24	1127	11	X	X	X																		
4	~~POSL~~	~~WT~~	~~G~~	~~2/5/24~~	~~1260~~				X																		
5	EB 13	WT	G	2/5/24	1500	12	X	X	X																		
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

Requested Analysis Filtered (Y/N)

Resampled in wrong bottle. Recollected 2/6/24 dab 2/6/24

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		2/5/24	1526							
					2/5/24	1630	2.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Amana

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 02/05/24

COC Rev 02

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HB00819 G3

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OMOI	WT	G	2/6/24	1230		11	X	X	X																	
2	OROGA	WT	G	2/6/24	1153		11	X	X	X																	
3	POSL	WT	G	2/6/24	1326		1	X																			
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		2/6/24	1701							
					2/6/24	1701	6.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	AP AW			
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 02/06/24	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

COC WDR

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HB01992

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

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

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

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX / CODE: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: DC-257-203	DC-845-203	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G54S				2/6/24	1345															
2	G65S				2/6/24	1245															
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1R Rev 0		2/6/24	1600							
					2/6/24	1600	7.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Aaron Remeverson		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 02/06/24				

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APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

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

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

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

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G52S	DC-G52#S	203	GMF	01/17/24	09:55	29.85		JB
G53L	DC-G53!L	203	GMF	01/17/24	10:31	11.76		JB
G53S	DC-G53#S	203	GMF	01/17/24	10:31	13.35		JB
G55L	DC-G55!L	203	GMF	01/17/24	15:13	20.95		JB
G55S	DC-G55#S	203	GMF	01/17/24	15:13	21.78		JB
G56L	DC-G56!L	203	GMF	01/17/24	13:57	19.98	Not locked on arrival	JB
G56S	DC-G56#S	203	GMF	01/17/24	13:57	20.15		JB
G57L	DC-G57!L	203	GMF	01/17/24	13:48	23.8	Not locked on arrival	JB
G58L	DC-G58!L	203	GMF	01/17/24	13:39	28.3	Not locked on arrival	JB
G58S	DC-G58#S	203	GMF	01/17/24	13:39	28.06		JB
G59L	DC-G59!L	203	GMF	01/17/24	13:33	31.33	Not locked on arrival	JB
G59S	DC-G59#S	203	GMF	01/17/24	13:33	33.44		JB
G61S	DC-G61#S	203	GMF	01/17/24	11:42	22.43		JB
G62L	DC-G62!L	203	GMF	01/17/24	11:18	23.46		JB
G63L	DC-G63!L	203	GMF	01/17/24	10:55	25.32		JB
G63S	DC-G63#S	203	GMF	01/17/24	10:55	25.51		JB
G65L	DC-G65!L	203	GMF	01/17/24	14:20	19.74		JB
G65S	DC-G65#S	203	GMF	01/17/24	14:20	20.03		JB
G66L	DC-G66!L	203	GMF	01/17/24	14:09	13.79	Pump removed	JB
G66S	DC-G66#S	203	GMF	01/17/24	14:09	14.09		JB
G67L	DC-G67!L	203	GMF	01/17/24	14:05	12:41		JB
G67S	DC-G67#S	203	GMF	01/17/24	14:05	13:25		JB
G68L	DC-G68!L	203	GMF	01/17/24	15:05	12.97		JB

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

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G68S	DC-G68#S	203	GMF	1/17/24	1505	13.78		JB
G69L	DC-G69!L	203	GMF	1/17/24	1507	13.67		JB
G69S	DC-G69#S	203	GMF	1/17/24	1507	16.62		AW
G70L	DC-G70!L	203	GMF	1/17/24	1456	16.18		JB
G71L	DC-G71!L	203	GMF	1/17/24	1449	18.58		JB
G71S	DC-G71#S	203	GMF	1/17/24	1445	19.45		JB
G72L	DC-G72!L	203	GMF	1/17/24	1441	20.32		AW
G73L	DC-G73!L	203	GMF	1/17/24	1438	26.50		JB
L103	DC-L103	204	LF	1/16/24	1024	1.97		JR
OM05S	DC-OM05#S	201-202	AP1/2	1/18/24	1034	22.67		AP
OM08	DC-OM08	201-202	AP1/2	1/18/24	1111	14.39		LR
OM09	DC-OM09	201-202	AP1/2	1/17/24	1315	3.40		AP
OM10	DC-OM10	201-202	AP1/2	1/17/24	1125	13.15		AP
OM15	DC-OM15	201-202	AP1/2	1/18/24	1200	27.34		JR
OM22S	DC-OM22#S	201-202	AP1/2	1/17/24	1331	20.10		AP
OM23S	DC-OM23#S	201-202	AP1/2	1/17/24	1411	42.06		AP
OM25D	DC-OM25&D	201-202	AP1/2	1/17/24	1446	57.95		AP
OR03S	DC-OR03#S	201-202	AP1/2	1/18/24	1042	45.64		LR
OR05D	DC-OR05&D	201-202	AP1/2	1/18/24	1032	22.07		AP
OR14S	DC-OR14#S	201-202	AP1/2	1/18/24	1055	6.72		AP
OR18	DC-OR18	201-202	AP1/2	1/17/24	1031	20.07		AP
P01I	DC-P01$I	204	LF	1/24/24	1354	8.26		LR
P01L	DC-P01!L	204	LF	1/24/24	1353	6.89		LR

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

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P01S	DC-P01#S	204	LF	1/24/24	1352	6.82		LR
P02S	DC-P02#S	204	LF	1/24/24	1340	7.40		LR
P04S	DC-P04#S	204	LF	1/24/24	1319	14.48	GOLS	LR
P05D	DC-P05&D	204	LF	1/24/24	1313	5.70		LR
P05L	DC-P05!L	204	LF	1/24/24	1309	4.37		LR
P05S	DC-P05#S	204	LF	1/24/24	1311	4.53	GOSL	LR
P36D	DC-P36&D	204	LF	1/17/24	1515	11.14		LR
P36L	DC-P36!L	204	LF	1/17/24	1517	10.24		LR
P36S	DC-P36#S	204	LF	1/17/24	1519	10.45		LR
P37D	DC-P37&D	204	LF	1/17/24	1422	15.35		LR
P37L	DC-P37!L	204	LF	1/17/24	1420	13.77		LR
P38L	DC-P38!L	204	LF	1/17/24	1358	19.49		LR
P38S	DC-P38#S	204	LF	1/17/24	1356	19.11		LR
P39D	DC-P39&D	204	LF	1/17/24	1333	13.70		LR
P39L	DC-P39!L	204	LF	1/17/24	1337	4.49		LR
P39S	DC-P39#S	204	LF	1/17/24	1335	4.63		LR
P40L	DC-P40!L	204	LF	1/17/24	1138	8.50		LR
P40S	DC-P40#S	204	LF	~~1/17/24~~	~~1136~~	~~7.81~~	4.77 2/6/24 1339 AP	~~LR~~ BG 2/7/24
P41D	DC-P41&D	204	LF	1/17/24	1110	37.21		LR
P41L	DC-P41!L	204	LF	1/17/24	1114	7.08		LR
P41S	DC-P41#S	204	LF	1/17/24	1112	9.45		LR
P42D	DC-P42&D	204	LF	1/17/24	1120	38.35		LR
P42I1	DC-P42$I1	204	LF	1/17/24	1122	5.60		LR

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

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P42I2	DC-P42%I2	204	LF	1/17/24	1124	33.06		LR
P42L	DC-P42!L	204	LF	1/17/24	1126	4.68		LR
P42S	DC-P42#S	204	LF	1/17/24	1128	5.43		LR
P52	DC-P52	203	GMF	1/17/24	1352	15.91		JB
P57L	DC-P57!L	203	GMF	1/17/24	1429	17.26		JB
P57S	DC-P57#S	203	GMF	1/17/24	1429	16.91		JB
P60	DC-P60	203	GMF	1/17/24	1210	27.84		JB
P61	DC-P61	203	GMF	1/17/24	1144	12.34		JB
P62	DC-P62	203	GMF	1/17/24	1114	13.59		JB
P63	DC-P63	203	GMF	1/17/24	1056	16.16		JB
P64	DC-P64	203	GMF	1/17/24	1132	14.66		JB
R10L	DC-R10!L	204	LF	1/17/24	1418	22.00		LR
R11L	DC-R11!L	204	LF	1/17/24	1416	22.60		LR
R13L	DC-R13!L	204	LF	1/17/24	1406	22.96		LR
R61L	DC-R61!L	203	GMF	1/17/24	1141	22.23	lock Broke	JB
R72S	DC-R72#S	203	GMF	1/17/24	1444	20.18		JB
T43L	DC-T43!L	204	LF	1/17/24	1428	6.65		LR
T44L	DC-T44!L	204	LF	1/17/24	1451	10.01		LR
T45L	DC-T45!L	204	LF	1/17/24	1453	5.70		LR
T46L	DC-T46!L	204	LF	1/17/24	1511	6.45		LR
X301	DC-X301-leachate	203	GMF	1/18/24	1219	–	no measuring point	MP
XTPW02	DC-XTPW02-pore	203	GMF	1/18/24	1208	6.90	DRY	LR

U:6/19/23 GKJ

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

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

Plant: DC
Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	1/17/24	1017	14.07	21615533	yes	573.36	yes	H		LR
BA02	DC-BA02	205	BAB	1/17/24	1007	8.89	21615636	yes	571.85	yes	H		LR
BA02L	DC-BA02!L	205	BAB	1/17/24	1009	8.70	21615682	yes	4.63	yes	H		LR
BA03	DC-BA03	205	BAB	1/17/24	0955	5.92	21615637	yes	572.77	yes	H		LR
BA03L	DC-BA03!L	205	BAB	1/17/24	0953	5.49	21615687	yes	572.47	yes	H		LR
BA04	DC-BA04	205	BAB	1/17/24	1030	6.16	21615631	yes	572.21	yes	H		LR
BA05	DC-BA05#	205	BAB	1/17/24	1047	17.45	21615540	yes	578.28	yes	H		LR
BA06	DC-BA06	205	BAB	1/17/24	1044	20.05	21615525	yes	575.09	yes	H		LR
G02S	DC-G02#S	204	LF	1/24/24	1340	7.40	21615554	Yes	614.32	Yes	H		JR
G50S	DC-G50#S	203	GMF	1/17/24	1016	12.02	21615535	yes	611.78	yes	H		JB
G51S	DC-G51#S	203	GMF	1/17/24	1000	9.86	21615691	yes	609.78	yes	H		JB
G54L	DC-G54!L	203	GMF	1/17/24	0937	22.85	21615690	yes	600.07	yes	H		JB
G54S	DC-G54#S	203	GMF	1/17/24	0938	24.11	21615684	yes	599.18	yes	H		JB
G57S	DC-G57#S	203	GMF	1/17/24	1324	23.45	21615683	yes	599.15	yes	H		JB
G60L	DC-G60!L	203	GMF	1/17/24	1209	14.99	21615678	yes	600.23	yes	H		JB
G60S	DC-G60#S	203	GMF	1/17/24	1209	24.56	21615677	yes	590.35	yes	H		JB
G64L	DC-G64!L	203	GMF	1/17/24	1050	23.83	21615688	yes	598.56	yes	H		JB
G64S	DC-G64#S	203	GMF	1/17/24	1050	24.73	21615632	yes	598.39	yes	H		JB

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

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

Plant: DC

Event: DC-24Q1 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OM01	DC-OM01	201-202	AP1/2	1/17/24	1350	12.60	21615685	yes	582.62	yes	H		AP
OM04S	DC-OM04#S	201-202	AP1/2	1/18/24	1042	21.10	21615542	yes	586.08	yes	H		LR
OM07	DC-OM07	201-202	AP1/2	1/18/24	1011	13.24	21615541	-	-	-	-	No transducer	~~JR~~
OM12	DC-OM12	201-202	AP1/2	1/18/24	1107	17.73	21615527	-	-	-	-	No transducer	JR
OM16	DC-OM16	201-202	AP1/2	1/17/24	1050	28.25	21615539	yes	579.60	yes	H		AP
OM17	DC-OM17	201-202	AP1/2	1/17/24	1104	11.72	21615693	yes	580.02	yes	H		AP
OM21	DC-OM21	201-202	AP1/2	1/18/24	1103	11.88	21615593	yes	594.52	yes	H		AP
OM22D	DC-OM22&D	201-202	AP1/2	1/17/24	1332	19.94	21615592	yes	579.24	yes	H		AP
OM23D	DC-OM23&D	201-202	AP1/2	1/17/24	1413	39.30	21615591	yes	573.94	yes	H		AP
OM24D	DC-OM24&D	201-202	AP1/2	1/17/24	1459	3.63	21615522	yes	573.28	yes	H		AP
OM25S	DC-OM25#S	201-202	AP1/2	1/17/24	1449	58.19	21615681	yes	570.76	yes	H		AP
OR02	DC-OR02	201-202	AP1/2	1/17/24	1437	5.42	21615679	yes	595.83	yes	H		AP
OR03D	DC-OR03&D	201-202	AP1/2	1/18/24	1045	45.13	21615577	yes	582.76	yes	H		LR
OR04D	DC-OR04&D	201-202	AP1/2	1/18/24	1040	21.81	21615570	yes	585.80	yes	H		LR
OR06A	DC-OR06!A	201-202	AP1/2	1/18/24	1024	14.10	21615692	yes	581.30	yes	H		AP
OR11	DC-OR11	201-202	AP1/2	1/18/24	1051	31.24	21615686	yes	564.96	yes	H		JR
OR13S	DC-OR13#S	201-202	AP1/2	1/18/24	1039	12.97	21615676	yes	588.55	yes	H		AP
OR13D	DC-OR13&D	201-202	AP1/2	1/18/24	1042	13.62	21564135	yes	588.89	yes	H		AP

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

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-202	AP1/2	1/18/24	1055	10.48	21615611	yes	586.64	yes	H		AP
OR19	DC-OR19	201-202	AP1/2	1/18/24	1123	24.66	21615634	yes	573.06	Yes	H		JR
OR20	DC-OR20	201-202	AP1/2	1/18/24	1040	21.49	21615610	yes	566.01	Yes	H		JR

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

Duck Creek

WELL/SAMPLE POINT BA06 **Purge Method:** Bladder

Date: 1/26/24 Start Time: 1350 Finish/Sample Time: 1453

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

Depth to Water From MP: 19.51 ft Total Purge Volume: 1.6 Gal / L / mL

Water Column Length: ft

Well Water Volume: Gal / L MW 1/26/24 2090 Total Drawdown: 5.87 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	14:09	21.69	100	6.70	~~2900~~	11.29	-14	1.04	349
2	14:10	21.82	100	6.67	2091	11.19	-15	0.93	347
3	14:11	21.97	100	6.66	2091	11.11	-17	0.84	352
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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

5

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

Ferrous Iron - Over Range mg/L

Final DTW: 25.38 ft

Comments **Check pH if reading is below 6.9 or above 7.7**

Sampler's Signature: Joseph R Rud

Duck Creek

WELL/SAMPLE POINT OM01 **Purge Method:** Peristaltic

Date: 2/6/24 Start Time: 10:63 Finish/Sample Time: 12:30

Well Depth (Bottom) From MP: 27.79 ft Min. Purge Volume: 1.0 Gal / (L) mL

Depth to Water From MP: 10.60 ft Total Purge Volume: 1.0 Gal (L) / mL

Water Column Length: 17.19 ft

Well Water Volume: 10.41 Gal / (L) Total Drawdown: 8.64 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	11:11	12.39	100	7.50	3280	8.36	28	2.82	127
2	11:14	12.76	100	6.86	3240	8.77	39	2.83	100
3	11:17	13.17	100	6.63	2780	8.93	46	2.81	82.1
4	11:20	13.58	100	6.48	3220	9.05	59	2.72	69.8
5	11:23	13.98	100	6.43	3210	9.16	67	2.56	61.1
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

AW 2/6/24

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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 0.098 ppm mg/L

Final DTW: 19.24 ft

Comments Installed dedicated tubing for peristaltic

Sampler's Signature:

WELL/SAMPLE POINT OR02 **Purge Method:** Portable

Date: 30-Jan-24 Start Time: 1431 Finish/Sample Time: 1531

Well Depth (Bottom) From MP: 22.11 ft Min. Purge Volume: 1 Gal / L / mL

Depth to Water From MP: 3.95 ft Total Purge Volume: 1.5 Gal / L / mL

Water Column Length: 18.16 ft

Well Water Volume: 10.99 Gal / L Total Drawdown: 0.04 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1451	3.99	200	6.78	1440	9.46	15	1.66	99.6
2	1454	3.99		6.76	1440	9.52	12	1.48	89.2
3	1457	3.99		6.76	1420	9.71	12	1.29	85.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(11)

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

Ferrous Iron - Under Range mg/L

Final DTW: 3.99 ft

Comments Well stable sampled at 200mL/min

Sampler's Signature: [signature]

BG

WELL/SAMPLE POINT OR03D **Purge Method:** Portable pump

Date: 1/25/2024 Start Time: 1405 Finish/Sample Time: 1451

Well Depth (Bottom) From MP: 77.77 ft Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 44.97 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 32.80 ft

Well Water Volume: 16.84 Gal (L) Total Drawdown: -0.02 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1417	45.15	200	6.44	3250	11.53	-14	0.70	395
2	1419	45.15	200	6.47	3460	11.66	-13	0.62	346
3	1421	45.15	200	6.46	3590	11.71	-13	0.57	369
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)
3	TOC (A,V 40mL. H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P,250 mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - over range mg/L

Final DTW: 44.95 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR04D **Purge Method:** portable pump

Date: 1/24/24 Start Time: 1212 Finish/Sample Time: 1254

Well Depth (Bottom) From MP: 67.98 ft Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 21.85 ft Total Purge Volume: 1200 Gal / L / mL

Water Column Length: 46.13 ft

Well Water Volume: 27.90 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	1222	21.89	200	6.55	5450	11.27	24	1.64	594
2	1224	21.89	200	6.56	5370	11.33	22	1.50	617
3	1226	21.89	200	6.56	5310	11.37	21	1.44	596
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: (11)

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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 4.266 mg/L

Final DTW: 21.85 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM04S **Purge Method:** portable pump

Date: 1/24/2024 Start Time: 1051 Finish/Sample Time: 1210

Well Depth (Bottom) From MP: 35.85 ft Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 20.19 ft Total Purge Volume: 1200 Gal / L / mL

Water Column Length: 15.66 ft

Well Water Volume: 2.47 Gal / L Total Drawdown: 7.63 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	1105	24.15	100	6.54	1100	8.81	240	3.33	5.8
2	1108	24.20	100	6.56	1100	8.82	239	3.27	6.3
3	1111	24.25	100	6.57	1100	8.83	239	3.21	6.1
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 (ORIGINAL)
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 1.816 mg/L

Final DTW: 27.82 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR06A **Purge Method:** peristaltic

Date: 2/6/2024 Start Time: 1105 Finish/Sample Time: 1153

Well Depth (Bottom) From MP: 25.65 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 13.91 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 11.74 ft

Well Water Volume: 7.10 Gal / (L) Total Drawdown: 0.02 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1115	13.99	200	6.32	3760	12.69	203	2.63	71000
2	1117	13.99	200	6.31	3740	12.73	185	2.54	71000
3	1119	13.99	200	6.32	3650	12.81	146	2.34	71000
4	1121	13.99	200	6.32	3630	12.82	139	2.31	~~7100~~ 542
5 1123	~~1223~~	13.99	200	6.33	3610	12.82	127	2.26	466
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

AFP 2/6/24

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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250 mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 3.693 mg/L

Final DTW: 13.93 ft

Comments Ants in well, installed fabricated tubing for peristaltic

Sampler's Signature:

WELL/SAMPLE POINT OM07 **Purge Method:** Peristaltic pump

Date: 1/26/2024 Start Time: 1308 Finish/Sample Time: 1354

Well Depth (Bottom) From MP: 29.92 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 13.24 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 16.68 ft

Well Water Volume: 10.08 Gal / (L) Total Drawdown: 0.24 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1320	13.72	200	7.49	1100	10.54	-2	0.00	143
2	1322	13.72	200	7.45	1100	10.60	-3	0.00	132
3	1324	13.72	200	7.43	1100	10.65	-3	0.00	128
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

AP 1/26/24

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

BOTTLE INFORMATION:

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

(11)

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

Ferrous Iron - 0.249 mg/L

Final DTW: 13.48 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR11 **Purge Method:** Peristaltic Pump

Date: 1/26/2024 Start Time: 1053 Finish/Sample Time: 1210

Well Depth (Bottom) From MP: 43.85 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 30.90 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 12.95 ft

Well Water Volume: 7.83 Gal / (L) Total Drawdown: 0.06 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	1104	31.06	200	8.01	1080	9.78	39	2.76	7100
2	1106	31.06	200	7.98	1100	9.91	34	2.62	7100
3	1108	31.06	200	7.63	1130	10.21	23	0.54	7100
4	1110	31.06	200	7.54	1140	10.29	20	0.50	335
5	1112	31.06	200	7.48	1150	10.33	17	0.47	328
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

S.O APP 1/26/24

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

APP 1/26/2024

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)
3 x 3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1 x 1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1 x 1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1 x 1	Rad (P, 2.5L, HNO3)

11 + 11

Filtered	
Qty	Bottles
1 x 1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1 x 1	General (P,1000mL)
3 x 3	TOC (A,V, 40mL, H2SO4)

Ferrous Iron - under range mg/L

Final DTW: 30.96 ft

Comments Field Dup Filled here

Sampler's Signature:

RE

Duck Creek

WELL/SAMPLE POINT OM12 **Purge Method:** peristaltic pump

Date: 1/29/2024 Start Time: 1210 Finish/Sample Time: 1300

Well Depth (Bottom) From MP: 43.19 ft Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 16.80 ft Total Purge Volume: 1000 Gal / L / mL

Water Column Length: 26.39 ft

Well Water Volume: 15.96 Gal / L Total Drawdown: 0.14 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	1225	17.64	200	6.45	1870	10.22	-74	2.05	818
2	1227	17.64	200	6.45	1870	10.23	-75	2.06	786
3	1229	17.64	200	6.45	1870	10.23	-75	1.98	727
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

11

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

Ferrous Iron - Over range mg/L

Final DTW: 16.94 ft

Comments

Sampler's Signature:

WELL/SAMPLE POINT OR13D **Purge Method:** portable pump

Date: 1/30/2024 Start Time: 1042 Finish/Sample Time: 1136

Well Depth (Bottom) From MP: 50.23 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 13.00 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 37.23 ft

Well Water Volume: 22.52 Gal / (L) Total Drawdown: 0.02 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1102	13.10	200	7.61	1760	10.25	-29	1.15	171
2	1104	13.10	200	7.60	1760	10.27	-30	1.10	143
3	1106	13.10	200	7.58	1760	10.26	-30	1.07	124
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 2.503 mg/L

Final DTW: 13.02 ft

Comments

Sampler's Signature:

BG

Duck Creek

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WELL/SAMPLE POINT OR13S **Purge Method:** Portable pump

Date: 1/29/2023 2024 Start Time: 1416 Finish/Sample Time: 1500

1/29/24 dd

Well Depth (Bottom) From MP: 29.55 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 11.81 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 17.74 ft

Well Water Volume: 10.73 Gal / (L) Total Drawdown: 0.09 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1425	11.89	200	6.70	1960	9.66	-17	2.14	403
2	1427	11.89	200	6.69	1960	9.68	-18	2.10	287
3	1429	11.89	200	6.69	1950	9.82	-19	2.01	244
4									
5						1429.6			
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(N)

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

Ferrous Iron - ~~0.254~~ mg/L Over Range

1/29/24 dd

Final DTW: 11.90 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR14D **Purge Method:** Portable pump 1435 AP 1/24/24

Date: 1/24/2024 Start Time: 1310 Finish/Sample Time: 1355

Well Depth (Bottom) From MP: 48.78 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 10.33 ft Total Purge Volume: 1200 Gal / L (mL)

Water Column Length: 38.45 ft

Well Water Volume: 23.25 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	1320	10.50	200	6.77	2360	10.95	29	1.00	71000
2	1322	10.50	200	6.76	2360	10.95	28	1.10	71000
3	1324	10.51	200	6.76	2360	10.96	28	1.18	71000
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 1.364 mg/L

Final DTW: 10.33 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM16 **Purge Method:** portable pump

Date: 1/24/2024 Start Time: 1029 Finish/Sample Time: 1150

Well Depth (Bottom) From MP: 43.70 ft Min. Purge Volume: 1000 Gal / L (mL)

Depth to Water From MP: 27.29 ft Total Purge Volume: 1000 Gal / L (mL)

Water Column Length: 16.41 ft

Well Water Volume: 9.92 Gal / (L) Total Drawdown: 1.43 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	1045	29.85	100	6.43	2650	6.47	32	1.12	71000
2	1048	30.07	100	6.30	3090	8.10	20	1.03	71000
3	1051	30.15	100	6.32	3170	8.26	21	0.97	71000
4	1054	30.30	100	6.33	3190	8.29	14	0.90	71000
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Ferrous Iron - 2.259 mg/L

Final DTW: 28.72 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM17 **Purge Method:** peristaltic

Date: 2/5/2024 Start Time: 1009 Finish/Sample Time: 1127

Well Depth (Bottom) From MP: 17.28 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 11.61 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 5.67 ft

Well Water Volume: 3.43 Gal (L) Total Drawdown: 3.47 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	1026	12.26	100	7.47	803	12.38	226	3.01	30.4
2	1029	12.39	100	7.40	773	12.28	227	2.98	34.6
3	1032	12.46	100	7.86	744	12.20	229	2.85	36.9
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		X
Well has weep holes		X

BOTTLE INFORMATION:

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

11

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

Ferrous Iron - Under range mg/L

Final DTW: 15.08 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR19 **Purge Method:** portable pump

Date: 1/29/2024 (~~2023~~) Start Time: 1307 Finish/Sample Time: 1400

1/29/24 dd

Well Depth (Bottom) From MP: 55.03 ft Min. Purge Volume: 100 Gal / L / (mL)

Depth to Water From MP: 24.14 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 30.89 ft

Well Water Volume: 18.68 Gal (L) Total Drawdown: 0.06 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	1323	24.22	200	6.72	2450	8.84	-31	4.10	605
2	1325	24.22	200	6.66	2460	9.31	-32	2.18	667
3	1327	24.22	200	6.64	2490	9.47	-33	2.13	578
4	1329	24.22	200	6.63	2510	9.50	-33	2.07	589
5						49.1			
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.	✓	X
Good seal/drainage	✓	
Well has weep holes	✓	

APP 1/29/23

BOTTLE INFORMATION:

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

(11)

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

Ferrous Iron - Over Range mg/L

Final DTW: 24.20 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR20 **Purge Method:** Peristaltic Pump

Date: 1/26/2021 Start Time: 1215 Finish/Sample Time: 1300

Well Depth (Bottom) From MP: 57.55 ft Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 21.26 ft Total Purge Volume: 1000 Gal / L / mL

Water Column Length: 36.29 ft

Well Water Volume: 21.95 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	1228	21.35	200	7.14	2330	9.50	5	0.00	981
2	1230	21.35	200	7.12	2330	9.57	4	0.00	978
3	1232	21.35	200	7.11	2340	9.61	3	0.00	979
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 0.237 mg/L

Final DTW: 21.26 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM21 **Purge Method:** portable pump

Date: 1/25/2024 Start Time: 1251 Finish/Sample Time: 1340

Well Depth (Bottom) From MP: 60.55 ft Min. Purge Volume: 1000 Gal / L / (mL)

Depth to Water From MP: 11.56 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 48.99 ft

Well Water Volume: 29.63 Gal / L Total Drawdown: 0.30 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	1306	11.80	200	6.47	3420	10.81	-36	0.69	71000
2	1308	11.80	200	6.46	3420	10.82	-36	0.66	994
3	1310	11.80	200	6.45	3430	10.86	-37	0.66	982
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

11

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

Ferrous Iron - over range mg/L

Final DTW: 11.86 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT: OM22D Purge Method: permible pump

Date: 1/25/2024 Start Time: 1053 Finish/Sample Time: 1140

Well Depth (Bottom) From MP: 65.19 ft Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 19.21 ft Total Purge Volume: 1000 Gal / L mL

Water Column Length: 45.98 ft

Well Water Volume: 27.81 Gal / L Total Drawdown: -0.02 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1106	19.24	200	6.36	3870	10.64	22	0.71	71000
2	1108	19.24	200	6.38	3970	10.91	14	0.66	71000
3	1110	19.24	200	6.33	4030	10.94	9	0.61	71000
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(11)

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

Ferrous Iron - 3.035 mg/L

Final DTW: 19.19 ft

Comments

Sampler's Signature:

WELL/SAMPLE POINT OM23D **Purge Method:** Portable Pump

Date: 1/25/2024 Start Time: 1148 Finish/Sample Time: 1236

Well Depth (Bottom) From MP: 82.91 ft Min. Purge Volume: 1000 Gal / L / mL

Depth to Water From MP: 39.19 ft Total Purge Volume: 1000 Gal / L / mL

Water Column Length: 43.72 ft

Well Water Volume: 26.44 Gal / L Total Drawdown: 0.17 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	1202	39.74	200	6.58	1730	11.18	-39	0.50	199
2	1204	39.74	200	6.58	1730	11.20	-39	0.48	206
3	1206	39.74	200	6.57	1720	11.25	-39	0.45	196
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
✓	Rad (P, 2.5L, HNO3)

11

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

Ferrous Iron - 2.403 mg/L

Final DTW: 39.36 ft

Comments

Sampler's Signature:

BGn

Duck Creek

WELL/SAMPLE POINT OM24D **Purge Method:** Peristaltic pump

Date: 1/30/2024 Start Time: 1155 Finish/Sample Time: 1405

Well Depth (Bottom) From MP: 19.66 ft Min. Purge Volume: 1650 Gal / L / (mL)

Depth to Water From MP: 2.59 ft Total Purge Volume: 1000 Gal / L / (mL)

Water Column Length: 17.07 ft

Well Water Volume: 10.32 Gal / (L)

Total Drawdown: 0.10 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	1304	2.64	200	6.88	3130	9.35	12	0.00	250
2	1306	2.64	200	6.86	3120	9.38	10	0.00	223
3	1308	2.69	200	6.84	>130	9.39	9	0.00	196
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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P,250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

1 + 1

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

Ferrous Iron - ~~0.224~~ mg/L

Over Range BG 2/6/24

Final DTW: 2.69 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM25S **Purge Method:** bailer

Date: 1/30/2024 Start Time: 1426 Finish/Sample Time: 1506

Well Depth (Bottom) From MP: 63.97 ft Min. Purge Volume: ~~3.58~~ 0.5 Gal / (L) mL

Depth to Water From MP: 58.10 ft Total Purge Volume: 0.5 Gal / (L) mL

Water Column Length: 5.87 ft

Well Water Volume: 3.55 Gal / (L) Total Drawdown: 1.80 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	1445	58.10	—	7.00	3430	9.93	31	1.80	129
2	1448	59.00	—	6.93	3430	9.88	31	1.83	> 1000
3	1451	59.50	—	6.91	3430	9.98	31	1.59	> 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)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

11

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

Ferrous Iron - 0.571 mg/L

Final DTW: 59.90 ft

Comments bailer used due to well being too deep for a peristaltic to work and was so turbid that it would damage our portable pump 1/2 bail purge to save on water

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: Horiba	Model: U50CD	Serial Number:	WU6 83C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	14FE2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	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 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	248	mV	±15 mV	P		—	InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.08	mg/L	±0.1	P		—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P		—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	—	—	—	Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1250			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.83	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1540				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	NA	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	1010	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	—	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

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

BG

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: Horriba	Model: U-5000	Serial Number:	PWSGYJD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	246	mV	±15 mV				InSitu	~~3GD937~~	~~Jan-24~~
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1252

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	999	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.06	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

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

Comments:

Signature:	Austin M	Date:	18-Jan-24

BG

Multiparameter Meter Field Calibration Checklist

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

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.33	s.u.	±0.1 s.u.	F	Yes	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	11.4	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	352	mV	±15 mV	P	No	NA	InSitu	~~3GB1049~~	~~Jan-24~~
DO (Zero pt)	~~5.47~~ 0.00	mg/L	±0.1	~~F~~ P	~~Yes~~ No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

01/18 JB

ICV (Initial Calibration Verification)					Time: 11:59			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.62	s.u.	±0.15 s.u.	F	Calibrated: 7.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.97	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.16	s.u.	±0.15 s.u.	F	Calibrated: 9.94	Geotech	3GA1134	Jan-25
SC 1000	987	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments: ORP taken at 0°C

Signature:	J Bohannan	Date:	01/18/2024

BG

Multiparameter Meter Field Calibration Checklist

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.61	s.u.	±0.1 s.u.	F	Yes	3.99	MSI	023067-01	3/14/2025
pH 7.00a	6.29	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	14	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1989	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	333	mV	±15 mV	P	No	N/A	InSitu	~~9GD927~~	~~Jan-24~~
DO (Zero pt)	0.03	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.1%	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	No		Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 10:05

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Comments: Only one well done

Signature: JBohannan — Date: 01/19/2024

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: Horriba	Model: U-5000	Serial Number:	AG5TK4XG	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-F	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV				InSitu	~~3GB827~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1030

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1230

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1019	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	—			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

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

Comments:

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

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AL AW	Location:	Duck creek
Weather:	Wind NW 9-18mph 80° sunny	Environment:	grass, snow

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WU683C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1960	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.2	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24 Lot # 3GF1011 BG 1/23/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1010			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.44	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.00	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.96	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1250			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	1/19/~~2023~~ 2024

AP 1/19/24

Serial #: 19FF2111192HB

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	37°-32° cloudy/Rain wind 53mph	Environment:	Ice, mud, snow
Multiparameter Water Meter	Make: Aquaread	Model: V-6000	Serial Number: AW26YJ03
Water Level Meter	Make: WT	Model: Itecon	Serial Number: IIFT-22093 05ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.92	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1.98	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	249	mV	±15 mV				InSitu	~~3GB927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.9	%	97-100%			N	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1644			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	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:	Austin M	Date:	23-Jan-24

BG

Multiparameter Meter Field Calibration Checklist

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.84	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	7.8	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	227	mV	±15 mV	P	No	N/A	InSitu	~~3GB087~~	~~Jan-24~~
DO (Zero pt)	0.07	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.3%	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 09:34

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 13:39

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Comments: ORP Taken at 1.67°C

Signature: JBohannan — Date: 01/23/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Andrew Witeska, Joe Reed	Location:	Duck Creek
Weather:	35°F, Rain, 4mph wind, Cloudy	Environment:	Iced over, Snow covered

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	ABJTK4KG	
Water Level Meter	Make: Heron	Model: Series 1900	Serial Number:	19FF211192HB	

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

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 10:24

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1550

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

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

Comments:

Signature: Joseph R Reed

Date: 1/29/24

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.86	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.23	s.u.	±0.1 s.u.	F	Yes	10.01	MSI	022361-01	12/27/2024
SC Zero (DI)	75	µS/cm	0<25 µS/cm	F	Yes	1.7	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	215	mV	±15 mV	P	No		InSitu	~~3GD027~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1	P	No		Macron	#000228049	8/26/2025
DO (Saturated)	97%	%	97-100%	P	No		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No		Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot# 3GD1021
BG
11/25/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 09:34

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 14:38

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	989	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Comments:

Signature: JBohannan — Date: 07/24/24

BG

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PW26YJ A3	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	6.87	s.u.	±0.1 s.u.	P	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	Yes	10.01	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	No	—	Geotech	3GF1197	Jun-24
ORP	300	mV	±15 mV	P	Yes	250	InSitu	~~3GB027~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

249 @ 10°C

Exp-6/24 Lot# 3GA1011 BG 1/25/24

ICV (Initial Calibration Verification)

Time: 1031

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	7.00	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.05	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1509

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

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

Comments:

Signature:		Date:	1/24/2024

BG

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Series 1100	Serial Number:	19FF2111192 HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.4	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	249	mV	±15 mV				InSitu	~~2GD027~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3GI1011
BG 1/25/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 945

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1456

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

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

Comments:

Signature: Joseph R Reed

Date: 1/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	37°, 40° F cloudy Wind NE 4mph	Environment:	snow, grass, mud

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WVG83C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF21111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	23	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	243	mV	±15 mV	P	NO		InSitu	~~3GD023~~	~~Jan-24~~
DO (Zero pt)	0.07	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.2	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Exp. 6/24
Lot # 3GA1012
BG
1/26/24

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1503				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	NO	NA	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	NA	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	NO	NA	Ricca	4209A12	Aug-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	P	NO	NA	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

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

BG

Multiparameter Meter Field Calibration Checklist

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

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

Exp. 6/24M
Lot # 3GF1197
3GF1211
BG
1/26/24M

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 1015

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 15

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Comments:

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

BG

Multiparameter Meter Field Calibration Checklist

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

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.65	s.u.	±0.1 s.u.	Fail	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.13	s.u.	±0.1 s.u.	Fail	Yes	7.01	MSI	023051-02	2/21/2025
pH 10.00a	10.18	s.u.	±0.1 s.u.	Fail	Yes	10.01	MSI	022361-01	12/27/2024
SC Zero (DI)	18	µS/cm	0<25 µS/cm	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	Pass	No	N/A	Geotech	3GF1197	Jun-24
ORP	335	mV	±15 mV	Pass	No	N/A	InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.00	mg/L	±0.1	Pass	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	Pass	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24 Lot A 3GB1021 BG 1/26/24

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	JBohannan	Date:	01/25/24

QC

Multiparameter Meter Field Calibration Checklist

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

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	243	mV	±15 mV				InSitu	~~3GD927~~	~~Jan-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Exp. 6/24
Lot # 3GI2011
8G 1126124

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	Austin M	Date:	25-Jan-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannon	Location:	Duck Creek
Weather:	43°-32°F Cloudy, 4 mph wind	Environment:	mud, slush, snow, ice

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF211192HB	

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

Approx. every 4 hrs, unless only one well

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

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

Approx. every 4 hrs, unless only one well

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

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Comments: ★ ORP Taken at 19.05°C

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

JB 1/26

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	32°-48°- Cloudy, windy, SNOW	Environment:	snow, wood, mud
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717 - T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.84	s.u.	±0.1 s.u.	F	YES	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P			InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	100.2	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments:

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

BG

Multiparameter Meter Field Calibration Checklist

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

Multiparameter Water Meter	Make: HORIBA	Model: U5000	Serial Number:	PW264JD3	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF220930SML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.91	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	254	mV	±15 mV				InSitu	~~3GD827~~	~~Aug-24~~
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU		N	N	Pace Labs	N/A (DI)	N/A (DI)

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)				Time: 1030			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.02	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):				Time: 1400					
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	N	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1010	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU	P	N	N	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	1/26/24

BG

Multiparameter Meter Field Calibration Checklist

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

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1015			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	6.98	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	996	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1507				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1000	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

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

Multiparameter Meter Field Calibration Checklist

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

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.93	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.14	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.34	s.u.	±0.1 s.u.	F	Yes	10.07	MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1992	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	363★	mV	±15 mV	P	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	97%	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 14:49			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	No	N/A	MSI	022361-01	12/27/2024
SC 1000	998	µS/cm	±5%	P	No	N/A	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	No	N/A	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments: ★ ORP Taken at ~10°C

Signature:	JBohannan	Date:	01/29/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AF	Location:	Duck creek
Weather:	35°-47° F windy SW 7mph	Environment:	grass, snow, mud, weeds

Multiparameter Water Meter	Make: Horiba	Model: VS000	Serial Number:	WV683C85	
Water Level Meter	Make: Horn	Model: Dipper-T	Serial Number:	3717-T	

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

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0832

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1530

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.6	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

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

Comments:

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

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	37°-42°C cloudy wind NW 11mph	Environment:	grass, mud, snow, woods

Multiparameter Water Meter	Make: Hor: ba	Model: V5000	Serial Number:	AGJTH4X6	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.53	s.u.	±0.1 s.u.	P	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	No	-	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	No	-	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	No	-	Geotech	3GF1197	Jun-24
ORP	274	mV	±15 mV	P	Yes	242	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	No	-	Macron	#000228049	8/26/2025
DO (Saturated)	74.6	%	97-100%	P	No	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

242 @ 15°

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	1/30/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	39-32° Cloudy wind WNW 11mph	Environment:	Mud

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WV683C85	
Water Level Meter	Make: Heron	Model: Dipper	Serial Number:	19FT211119HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	N	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.86	s.u.	±0.1 s.u.	P	Y	7.00	MSI	023051-02	2/21/2025
pH 10.00a	9.96	s.u.	±0.1 s.u.	P	N	N/A	MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1974	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	252	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.2	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	Austin Moore	Date:	30-Jan-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	35°-45°F cloudy Winds U at 6mph	Environment:	grass, mud

Multiparameter Water Meter	Make: Yoriko	Model: U5000	Serial Number:	AGJTHUXG	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	–	Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO	–	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

24.4 @ 15°C

ICV (Initial Calibration Verification)					Time: 0920			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.04	s.u.	±0.15 s.u.	P	–	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	–	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	991	µS/cm	±5%	P	–	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1523				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC 1000	992	µS/cm	±5%	P	NO	–	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	1/31/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	41°-58°F Partly cloudy Wind SW 6mph	Environment:	mud, grass

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	AGJTK4XG	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	-	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	-	MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	-	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%	P	NO	-	Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV	P	NO	-	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.03	mg/L	±0.1	P	NO	-	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

242 @ 15°C

ICV (Initial Calibration Verification)					Time: 0552			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	-	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	-	Geotech	2GF113	Jun-24
pH 10.00b	10.06	s.u.	±0.15 s.u.	P	-	Geotech	3GA1134	Jan-25
SC 1000	1014	µS/cm	±5%	P	-	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1500				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	-	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	-	MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	-	MSI	022361-01	12/27/2024
SC 1000	1010	µS/cm	±5%	P	NO	-	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	-	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	-	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	2/1/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck Creek
Weather:	30-50°F Windy Sunny NE 7mph	Environment:	Woods, grass, mud

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1940	µS/cm	±5%	P	NO	–	Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV	P	NO	–	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	100.0	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 15°C

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

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	2/5/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP	Location:	Duck creek
Weather:	Fog 34°-50°C wind SE3mph	Environment:	grass, mud

Multiparameter Water Meter	Make: Hor. ba	Model: USC00	Serial Number:	PW26VJD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-7	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.95	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	19	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	229	mV	±15 mV	P	YES	249	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.04	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	100.0	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

24a @ 10°C

ICV (Initial Calibration Verification)

Time: 1021

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1420

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

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

Comments:

Signature:		Date:	2/6/2024

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

March 15, 2024

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

Dear Daryl Johnson:

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

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

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

Sincerely,

Diane Billings
Project Manager

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

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HA02920

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

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

Work Order HA03444

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

Pace Analytical Services, LLC
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Peoria, IL 61615
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Work Order HA03724

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

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

Work Order HA03941

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

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

Work Order HA04059

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

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

Work Order HA04294

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

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

Work Order HA04485

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

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

Work Order HB00520

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

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

Work Order HB00823

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

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

Work Order HB01644

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

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

ANALYTICAL RESULTS

Sample: HA02920-01 **Sampled:** 01/19/24 11:55
Name: G50S **Received:** 01/19/24 14:02
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.22	pCi/L			1	0.591	02/03/24 13:02	PACE	904.0 903.0

Sample: HA02920-02 **Sampled:** 01/19/24 12:00
Name: G51S **Received:** 01/19/24 14:02
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.482 J	pCi/L			1	0.629	02/03/24 13:02	PACE	904.0 903.0

Sample: HA02920-03 **Sampled:** 01/19/24 12:03
Name: G54S **Received:** 01/19/24 14:02
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.32	pCi/L			1	1.05	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03444-01 **Sampled:** 01/24/24 14:35
Name: OR14D **Received:** 01/24/24 16:15
Matrix: Waste Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.51	pCi/L			1	0.999	02/03/24 13:02	PACE	904.0 903.0

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2231 W. Altorfer Drive
Peoria, IL 61615
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ANALYTICAL RESULTS

Sample: HA03444-02 **Sampled:** 01/24/24 12:54
Name: OR04D **Received:** 01/24/24 16:15
Matrix: Waste Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.43	pCi/L			1	1.15	02/03/24 13:02	PACE	904.0 903.0

Sample: HA03444-03 **Sampled:** 01/24/24 12:10
Name: OM04S **Received:** 01/24/24 16:15
Matrix: Waste Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.53	pCi/L			1	0.616	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03444-04 **Sampled:** 01/24/24 14:56
Name: EB #3 **Received:** 01/24/24 16:15
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.688	pCi/L			1	0.489	02/03/24 13:02	PACE	904.0 903.0

Sample: HA03444-05 **Sampled:** 01/24/24 15:05
Name: EB #4 **Received:** 01/24/24 16:15
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.76	pCi/L			1	0.686	02/03/24 13:02	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03444-06 **Sampled:** 01/24/24 11:29
Name: R61L **Received:** 01/24/24 16:15
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.33	pCi/L			1	0.498	02/03/24 13:02	PACE	904.0 903.0

Sample: HA03444-07 **Sampled:** 01/24/24 11:43
Name: G61S **Received:** 01/24/24 16:15
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.35	pCi/L			1	0.608	02/03/24 13:02	PACE	904.0 903.0

Sample: HA03724-01 **Sampled:** 01/25/24 14:39
Name: BA02 **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.16	pCi/L			1	0.719	02/07/24 17:35	PACE	904.0 903.0

Sample: HA03724-02 **Sampled:** 01/25/24 13:25
Name: BA03 **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.28	pCi/L			1	0.429	02/07/24 17:35	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03724-03
Name: BA03L
Matrix: Ground Water - Grab

Sampled: 01/25/24 12:19
Received: 01/25/24 16:33
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.83	pCi/L			1	0.729	02/07/24 17:35	PACE	904.0 903.0

Sample: HA03724-04
Name: G60L
Matrix: Ground Water - Grab

Sampled: 01/25/24 13:32
Received: 01/25/24 16:33
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.16	pCi/L			1	0.418	02/07/24 17:35	PACE	904.0 903.0

Sample: HA03724-05
Name: G60S
Matrix: Ground Water - Grab

Sampled: 01/25/24 12:22
Received: 01/25/24 16:33
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	6.32	pCi/L			1	1.01	02/07/24 17:35	PACE	904.0 903.0

Sample: HA03724-06
Name: G62L
Matrix: Ground Water - Grab

Sampled: 01/25/24 15:15
Received: 01/25/24 16:33
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.27	pCi/L			1	0.533	02/08/24 17:08	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03724-07 **Sampled:** 01/25/24 14:40
Name: G64S **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.52	pCi/L			1	0.505	02/08/24 17:08	PACE	904.0 903.0

Sample: HA03724-08 **Sampled:** 01/25/24 14:51
Name: OR03D **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.51	pCi/L			1	0.977	02/08/24 17:08	PACE	904.0 903.0

Sample: HA03724-09 **Sampled:** 01/25/24 13:40
Name: OM21 **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.56	pCi/L			1	1.1	02/08/24 17:08	PACE	904.0 903.0

Sample: HA03724-10 **Sampled:** 01/25/24 11:40
Name: OM22D **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.71	pCi/L			1	1.14	02/08/24 17:08	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03724-11 **Sampled:** 01/25/24 12:36
Name: OM23D **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.07	pCi/L			1	0.614	02/08/24 17:08	PACE	904.0 903.0

Sample: HA03724-12 **Sampled:** 01/25/24 15:15
Name: EB #5 **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.28	pCi/L			1	0.689	02/08/24 17:08	PACE	904.0 903.0

Sample: HA03724-13 **Sampled:** 01/25/24 15:30
Name: EB #6 **Received:** 01/25/24 16:33
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.873	pCi/L			1	0.541	02/08/24 17:08	PACE	904.0 903.0

Sample: HA03941-01 **Sampled:** 01/26/24 12:22
Name: BA01 **Received:** 01/26/24 16:04
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.09	pCi/L			1	0.558	02/05/24 16:52	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03941-02
Name: BA01 DUP
Matrix: Ground Water - Grab
Sampled: 01/26/24 12:22
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.47	pCi/L			1	0.585	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03941-03
Name: BA04
Matrix: Ground Water - Grab
Sampled: 01/26/24 13:38
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.32	pCi/L			1	0.63	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03941-04
Name: BA06
Matrix: Ground Water - Grab
Sampled: 01/26/24 14:53
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	4.69	pCi/L			1	1.13	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03941-05
Name: G57S
Matrix: Ground Water - Grab
Sampled: 01/26/24 14:24
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.788	pCi/L			1	0.61	02/05/24 16:52	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03941-06
Name: OM07
Matrix: Ground Water - Grab

Sampled: 01/26/24 13:54
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.44	pCi/L			1	0.711	02/03/24 13:02	PACE	904.0 903.0

Sample: HA03941-07
Name: OR11
Matrix: Ground Water - Grab

Sampled: 01/26/24 12:10
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.84	pCi/L			1	0.617	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03941-08
Name: OR11 DUP
Matrix: Ground Water - Grab

Sampled: 01/26/24 12:10
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.04	pCi/L			1	0.549	02/05/24 16:52	PACE	904.0 903.0

Sample: HA03941-09
Name: OR20
Matrix: Ground Water - Grab

Sampled: 01/26/24 13:00
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.25	pCi/L			1	1.12	02/05/24 16:52	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA03941-10
Name: EB #7
Matrix: Ground Water - Grab

Sampled: 01/26/24 14:30
Received: 01/26/24 16:04
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.551	pCi/L			1	0.529	02/05/24 16:52	PACE	904.0 903.0

Sample: HA04059-01
Name: G02S
Matrix: Ground Water - Grab

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

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.01	pCi/L			1	0.499	02/09/24 16:57	PACE	904.0 903.0

Sample: HA04059-02
Name: OM12
Matrix: Ground Water - Grab

Sampled: 01/29/24 13:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.65	pCi/L			1	0.572	02/09/24 16:57	PACE	904.0 903.0

Sample: HA04059-03
Name: OM16
Matrix: Ground Water - Grab

Sampled: 01/29/24 11:50
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.72	pCi/L			1	0.71	02/09/24 16:57	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA04059-04
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 01/29/24 15:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.69	pCi/L			1	0.522	02/09/24 16:57	PACE	904.0 903.0

Sample: HA04059-05
Name: OR19
Matrix: Ground Water - Grab

Sampled: 01/29/24 14:00
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.36	pCi/L			1	0.537	02/09/24 16:57	PACE	904.0 903.0

Sample: HA04059-06
Name: EB #8
Matrix: Ground Water - Grab

Sampled: 01/29/24 15:15
Received: 01/29/24 16:29
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.178 U	pCi/L			1	0.529	02/09/24 16:57	PACE	904.0 903.0

Sample: HA04294-01
Name: G54L
Matrix: Ground Water - Grab

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

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.696	pCi/L			1	0.438	02/09/24 21:10	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA04294-02 **Sampled:** 01/30/24 14:05
Name: OM24D **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.430 J	pCi/L			1	0.534	02/09/24 21:10	PACE	904.0 903.0

Sample: HA04294-03 **Sampled:** 01/30/24 14:05
Name: OM24D DUP **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.967	pCi/L			1	0.449	02/09/24 21:10	PACE	904.0 903.0

Sample: HA04294-04 **Sampled:** 01/30/24 15:06
Name: OM25S **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.13	pCi/L			1	1.18	02/09/24 21:10	PACE	904.0 903.0

Sample: HA04294-05 **Sampled:** 01/30/24 15:31
Name: OR02 **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.46	pCi/L			1	0.557	02/09/24 21:10	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA04294-06 **Sampled:** 01/30/24 11:36
Name: OR13D **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.42	pCi/L			1	0.476	02/09/24 21:10	PACE	904.0 903.0

Sample: HA04294-07 **Sampled:** 01/30/24 15:55
Name: EB # 9 **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.613	pCi/L			1	0.488	02/09/24 21:10	PACE	904.0 903.0

Sample: HA04294-08 **Sampled:** 01/30/24 15:55
Name: EB # 10 **Received:** 01/30/24 17:03
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.346 J	pCi/L			1	0.544	02/09/24 21:10	PACE	904.0 903.0

Sample: HA04485-01 **Sampled:** 01/31/24 10:50
Name: P60 **Received:** 01/31/24 16:24
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.25	pCi/L			1	0.437	02/09/24 16:57	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HA04485-02 **Sampled:** 01/31/24 15:15
Name: EB #11 **Received:** 01/31/24 16:24
Matrix: Ground Water - Grab **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.595	pCi/L			1	0.527	02/09/24 16:57	PACE	904.0 903.0

Sample: HB00520-01 **Sampled:** 02/05/24 14:40
Name: BA02L **Received:** 02/05/24 16:30
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.29	pCi/L			1	0.832	02/19/24 22:20	PACE	904.0 903.0

Sample: HB00520-02 **Sampled:** 02/05/24 13:29
Name: BA05 **Received:** 02/05/24 16:30
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.17	pCi/L			1	0.715	02/19/24 22:20	PACE	904.0 903.0

Sample: HB00520-03 **Sampled:** 02/05/24 11:27
Name: OM17 **Received:** 02/05/24 16:30
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.290 J	pCi/L			1	0.526	02/19/24 22:20	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HB00520-04 **Sampled:** 02/05/24 15:00
Name: EB #13 **Received:** 02/05/24 16:30
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.423 J	pCi/L			1	0.627	02/19/24 22:20	PACE	904.0 903.0

Sample: HB00823-01 **Sampled:** 02/06/24 12:30
Name: OM01 **Received:** 02/06/24 17:01
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.38	pCi/L			1	0.524	02/20/24 22:23	PACE	904.0 903.0

Sample: HB00823-02 **Sampled:** 02/06/24 11:53
Name: OR06A **Received:** 02/06/24 17:01
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.844	pCi/L			1	0.385	02/20/24 22:23	PACE	904.0 903.0

Sample: HB01644-01 **Sampled:** 02/08/24 12:18
Name: G64L **Received:** 02/08/24 18:43
Matrix: Ground Water - Grab

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.724	pCi/L			1	0.381	02/28/24 21:29	PACE	904.0 903.0

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NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

Certified by: Diane Billings, Project Manager

ANALYTICAL REPORT

February 08, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1699188
Samples Received:	01/26/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HA02920-01 L1699188-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/19/24 11:55	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA02920-02 L1699188-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/19/24 12:00	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA02920-03 L1699188-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/19/24 12:03	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

SAMPLE RESULTS - 01

HA02920-04 L1699188
Collected date/time: 01/19/24 11:55

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.06		0.279	0.871	0.507	0.264	02/03/2024 13:02	WG2216557
(T) Barium	*106*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*114*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.22		0.351	0.591	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.163	J	0.213	0.0964	0.304	0.211	01/30/2024 23:13	WG2215215
(T) Barium-133	*98.1*					*30.0-143*	*01/30/2024 23:13*	WG2215215

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 02

HA02920-02 L1699188

Collected date/time: 01/19/24 12:00

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-1.10	U	0.282	0.892	0.571	0.296	02/03/2024 13:02	WG2216557
(T) Barium	*115*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*97.0*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.482	J	0.408	0.629	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.482		0.295	0.141	0.265	0.193	01/30/2024 23:13	WG2215215
(T) Barium-133	*95.2*					*30.0-143*	*01/30/2024 23:13*	WG2215215

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 03

HA02920-05 L1699188

Collected date/time: 01/19/24 12:03

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.08		0.528	1.84	1.00	0.526	02/05/2024 16:52	WG2216557
(T) Barium	*112*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*92.8*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.32		0.580	1.05	02/05/2024 16:52	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.238	J	0.239	0.108	0.310	0.209	01/30/2024 23:13	WG2215215
(T) Barium-133	*96.8*					*30.0-143*	*01/30/2024 23:13*	WG2215215

Method Blank (MB)

(MB) R4031133-1 02/03/24 13:02

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.811		0.141	0.243	0.129
(T) Barium	*119*		*119*		
(T) Yttrium	*98.7*		*98.7*		

L1699186-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1699186-05 02/03/24 13:02 • (DUP) R4031133-4 02/03/24 13:02

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.59	0.347	0.619	0.324	0.705	0.348	0.649	0.340	77.1	1.80		20	3
(T) Barium	*113*				*108*	*108*							
(T) Yttrium	*100*				*95.5*	*95.5*							

Laboratory Control Sample (LCS)

(LCS) R4031133-5 02/05/24 16:52

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.35	107	80.0-120	
(T) Barium			*118*		
(T) Yttrium			*99.3*		

L1700201-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700201-06 02/03/24 13:02 • (MS) R4031133-2 02/03/24 13:02 • (MSD) R4031133-3 02/03/24 13:02

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.26	18.7	16.3	104	89.8	1	70.0-130			13.7		20
(T) Barium		*105*			*107*	*110*							
(T) Yttrium		*102*			*105*	*99.9*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1699188-01,02,03

Method Blank (MB)

(MB) R4028230-1 01/30/24 23:13

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0297	U	0.0557	0.0859	0.0562
(T) Barium-133	*96.9*		*96.9*		

L1698779-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1698779-01 01/30/24 23:13 • (DUP) R4028230-5 01/30/24 23:13

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.350	0.243	0.254	0.178	0.145	0.200	0.293	0.207	82.7	0.650	J	20	3
(T) Barium-133	*96.2*				*88.8*	*88.8*							

Laboratory Control Sample (LCS)

(LCS) R4028230-2 01/30/24 23:13

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.33	107	80.0-120	
(T) Barium-133			*93.2*		

L1699186-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699186-04 01/30/24 23:13 • (MS) R4028230-3 01/30/24 23:13 • (MSD) R4028230-4 01/30/24 23:13

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0115	17.2	18.2	85.9	90.8	1	75.0-125			5.55		20
(T) Barium-133		*103*			*94.9*	*90.9*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC D003

HA02920

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1699188

Sample: HA02920-01
Name: G50S

Sampled: 01/19/24 11:55
Matrix: Ground Water
Preservative: HNO3, pH <2 -01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/01/24 16:00	07/17/24 11:55	10 Day TAT Required

Sample: HA02920-02
Name: G51S

Sampled: 01/19/24 12:00
Matrix: Ground Water
Preservative: HNO3, pH <2 -02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/01/24 16:00	07/17/24 12:00	10 Day TAT Required

Sample: HA02920-03
Name: G54S

Sampled: 01/19/24 12:03
Matrix: Ground Water
Preservative: HNO3, pH <2 -03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/01/24 16:00	07/17/24 12:03	10 Day TAT Required

H.4+0.4.4 DP AB

Sample Receipt Checklist

COC Seal Present Intact:	Y N	If applicable VOA Zero Headspace:	Y N
COC Signed Accurate:	Y N	Pres Correct Check	Y N
Bottles arrive intact:	Y N		
Correct bottles used	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR hr:	Y N		

7003 7812 0525

Please email results to Diane Billing

Date Shipped: 1/25/24 Total # of Containers: 3 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	1/25/24 0730		
			1/26/24 0900

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 2
DC-845-201-202

ANALYTICAL REPORT

February 08, 2024

Pace IR - Peoria, IL

Sample Delivery Group: L1699186

Samples Received: 01/26/2024

Project Number:

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

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Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Qc: Quality Control Summary 13
Radiochemistry by Method 904/9320 13
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Gl: Glossary of Terms 15
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Sc: Sample Chain of Custody 17

SAMPLE SUMMARY

HA03444-01 L1699186-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/24/24 14:35	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA03444-02 L1699186-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/24/24 12:54	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA03444-03 L1699186-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/24/24 12:10	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA03444-04 L1699186-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/24/24 14:56	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA03444-05 L1699186-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/24/24 15:05	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

HA03444-06 L1699186-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/24/24 11:29	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HA03444-07 L1699186-07 Non-Potable Water		01/24/24 11:43	01/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2215215	1	01/29/24 09:15	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2215215	1	01/29/24 09:15	01/30/24 23:13	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

SAMPLE RESULTS - 01

HA03444-01 Collected date/time: 01/24/24 14:35 L1699186

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.92		0.534	1.39	0.968	0.509	02/03/2024 13:02	WG2216557
(T) Barium	*94.1*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*108*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.51		0.716	0.999	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.59		0.477	0.250	0.246	0.176	01/30/2024 23:13	WG2215215
(T) Barium-133	*100*					*30.0-143*	*01/30/2024 23:13*	WG2215215

HA03444-02 SAMPLE RESULTS - 02

Collected date/time: 01/24/24 12:54 L1699186

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.56		0.610	1.62	1.13	0.589	02/03/2024 13:02	WG2216557
(T) Barium	*102*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*109*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.43		0.709	1.15	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.868		0.361	0.157	0.215	0.163	01/30/2024 23:13	WG2215215
(T) Barium-133	*84.1*					*30.0-143*	*01/30/2024 23:13*	WG2215215

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HA03444-03 SAMPLE RESULTS - 03

Collected date/time: 01/24/24 12:10 L1699186

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.06		0.292	0.976	0.538	0.282	02/05/2024 16:52	WG2216557
(T) Barium	*81.2*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*112*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.53		0.417	0.616	02/05/2024 16:52	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.466		0.298	0.137	0.299	0.207	01/30/2024 23:13	WG2215215
(T) Barium-133	*93.3*					*30.0-143*	*01/30/2024 23:13*	WG2215215

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HA03444-04 SAMPLE RESULTS - 04

Collected date/time: 01/24/24 14:56 L1699186

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.688		0.252	1.01	0.465	0.243	02/03/2024 13:02	WG2216557
(T) Barium	*118*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*100*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.688		0.255	0.489	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0115	U	0.0357	0.00816	0.152	0.119	01/30/2024 23:13	WG2215215
(T) Barium-133	*103*					*30.0-143*	*01/30/2024 23:13*	WG2215215

SAMPLE RESULTS - 05

HA03444-05 L1699186

Collected date/time: 01/24/24 15:05

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.59		0.347	0.923	0.619	0.324	02/03/2024 13:02	WG2216557
(T) Barium	*113*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*100*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.76		0.406	0.686	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.170	J	0.211	0.0961	0.296	0.197	01/30/2024 23:13	WG2215215
(T) Barium-133	*102*					*30.0-143*	*01/30/2024 23:13*	WG2215215

SAMPLE RESULTS - 06

HA03444-06 L1699186

Collected date/time: 01/24/24 11:29

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.03		0.253	0.832	0.456	0.238	02/03/2024 13:02	WG2216557
(T) Barium	*110*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*123*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.33		0.329	0.498	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.292		0.211	0.104	0.201	0.153	01/30/2024 23:13	WG2215215
(T) Barium-133	*98.6*					*30.0-143*	*01/30/2024 23:13*	WG2215215

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.842		0.257	0.927	0.469	0.245	02/03/2024 13:02	WG2216557
(T) Barium	*99.3*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*102*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.35		0.431	0.608	02/03/2024 13:02	WG2215215

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.505		0.346	0.158	0.387	0.254	01/30/2024 23:13	WG2215215
(T) Barium-133	*95.2*					*30.0-143*	*01/30/2024 23:13*	WG2215215

Method Blank (MB)

(MB) R4031133-1 02/03/24 13:02

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.811		0.141	0.243	0.129
(T) Barium	*119*		*119*		
(T) Yttrium	*98.7*		*98.7*		

L1699186-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1699186-05 02/03/24 13:02 • (DUP) R4031133-4 02/03/24 13:02

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.59	0.347	0.619	0.324	0.705	0.348	0.649	0.340	77.1	1.80		20	3
(T) Barium	*113*				*108*	*108*							
(T) Yttrium	*100*				*95.5*	*95.5*							

Laboratory Control Sample (LCS)

(LCS) R4031133-5 02/05/24 16:52

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.35	107	80.0-120	
(T) Barium			*118*		
(T) Yttrium			*99.3*		

L1700201-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700201-06 02/03/24 13:02 • (MS) R4031133-2 02/03/24 13:02 • (MSD) R4031133-3 02/03/24 13:02

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.26	18.7	16.3	104	89.8	1	70.0-130			13.7		20
(T) Barium		*105*			*107*	*110*							
(T) Yttrium		*102*			*105*	*99.9*							

Method Blank (MB)

(MB) R4028230-1 01/30/24 23:13

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0297	U	0.0557	0.0859	0.0562
(T) Barium-133	*96.9*		*96.9*		

L1698779-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1698779-01 01/30/24 23:13 • (DUP) R4028230-5 01/30/24 23:13

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.350	0.243	0.254	0.178	0.145	0.200	0.293	0.207	82.7	0.650	J	20	3
(T) Barium-133	*96.2*				*88.8*	*88.8*							

Laboratory Control Sample (LCS)

(LCS) R4028230-2 01/30/24 23:13

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.33	107	80.0-120	
(T) Barium-133			*93.2*		

L1699186-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1699186-04 01/30/24 23:13 • (MS) R4028230-3 01/30/24 23:13 • (MSD) R4028230-4 01/30/24 23:13

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0115	17.2	18.2	85.9	90.8	1	75.0-125			5.55		20
(T) Barium-133		*103*			*94.9*	*90.9*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
HA03444

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

D004

LL699486

Sample: HA03444-01
Name: OR14D

Sampled: 01/24/24 14:35
Matrix: Waste Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/22/24 14:35	10 Day TAT Required

Sample: HA03444-02
Name: OR04D

Sampled: 01/24/24 12:54
Matrix: Waste Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/22/24 12:54	10 Day TAT Required

Sample: HA03444-03
Name: OM04S

Sampled: 01/24/24 12:10
Matrix: Waste Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/22/24 12:10	10 Day TAT Required

Sample: HA03444-04
Name: EB #3

1/24/24, 1456
dab 1/24/24

Sampled: 01/23/24 00:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/21/24 00:00	10 Day TAT Required

Sample: HA03444-05
Name: EB # 4

1/24/24
1505
dab
1/24/24

Sampled: 01/23/24 00:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/21/24 00:00	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03444

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1699186

Sample: HA03444-06
Name: R61L

Sampled: 01/24/24 11:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/22/24 11:29	10 Day TAT Required

Sample: HA03444-07
Name: G61S

Sampled: 01/24/24 11:43
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/06/24 16:00	07/22/24 11:43	10 Day TAT Required

Sample Receipt Checklist 14.4+0=14.4 DP AA

COC Seal Present Intact: Y N — If Applicable
COC Signed Accurate: Y N — VOA Zero Headspace: Y N
Bottles arrive intact: Y N — Pres. Correct Check: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RA Screen <0.5 mR hr: Y N

7003 7812 0525

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

Date Shipped: 1/25/24 Total # of Containers: 7 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	1/25/24 0730		
			1/26/24 0700

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Pace Analytical®

ANALYTICAL REPORT

March 14, 2024

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1700204
Samples Received:	01/30/2024
Project Number:	HA03724
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By: Haley Torrence

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HA03724-01 L1700204-01 Non-Potable Water

Collected by | Collected date/time 01/25/24 14:39 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/07/24 17:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/07/24 17:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

HA03724-02 L1700204-02 Non-Potable Water

Collected by | Collected date/time 01/25/24 13:25 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/07/24 17:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/07/24 17:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

HA03724-03 L1700204-03 Non-Potable Water

Collected by | Collected date/time 01/25/24 12:19 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/07/24 17:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/07/24 17:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

HA03724-04 L1700204-04 Non-Potable Water

Collected by | Collected date/time 01/25/24 13:32 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/07/24 17:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/07/24 17:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA03724-05 L1700204-05 Non-Potable Water

Collected by | Collected date/time 01/25/24 12:22 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/07/24 17:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/07/24 17:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/05/24 23:58	ZRG	Mt. Juliet, TN

HA03724-06 L1700204-06 Non-Potable Water

Collected by | Collected date/time 01/25/24 15:15 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/05/24 23:58	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HA03724-07 L1700204-07 Non-Potable Water

Collected by | Collected date/time 01/25/24 14:40 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA03724-08 L1700204-08 Non-Potable Water

Collected by | Collected date/time 01/25/24 14:51 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA03724-09 L1700204-09 Non-Potable Water

Collected by | Collected date/time 01/25/24 13:40 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA03724-10 L1700204-10 Non-Potable Water

Collected by | Collected date/time 01/25/24 11:40 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA03724-11 L1700204-11 Non-Potable Water

Collected by | Collected date/time 01/25/24 12:36 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA03724-12 L1700204-12 Non-Potable Water

Collected by | Collected date/time 01/25/24 15:15 | Received date/time 01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HA03724-13 L1700204-13 Non-Potable Water		01/25/24 15:30	01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2217310	1	02/02/24 22:16	02/08/24 17:08	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/08/24 17:08	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 02/12/24 15:53

Project Narrative

SAMPLE RESULTS - 01

HA03724-01 L1700204
Collected date/time: 01/25/24 14:39

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.931		0.331	1.21	0.595	0.312	02/07/2024 17:35	WG2217310
(T) Barium	*118*					*30.0-143*	*02/07/2024 17:35*	WG2217310
(T) Yttrium	*107*					*30.0-136*	*02/07/2024 17:35*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.16		0.438	0.719	02/07/2024 17:35	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.232	J	0.287	0.115	0.403	0.269	02/02/2024 21:13	WG2216812
(T) Barium-133	*87.5*					*30.0-143*	*02/02/2024 21:13*	WG2216812

SAMPLE RESULTS - 02

HA03724-02 L1700204
Collected date/time: 01/25/24 13:25

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.958		0.206	0.787	0.355	0.188	02/07/2024 17:35	WG2217310
(T) Barium	*119*					*30.0-143*	*02/07/2024 17:35*	WG2217310
(T) Yttrium	*115*					*30.0-136*	*02/07/2024 17:35*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.28		0.315	0.429	02/07/2024 17:35	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.317		0.238	0.116	0.241	0.179	02/02/2024 21:13	WG2216812
(T) Barium-133	*98.8*					*30.0-143*	*02/02/2024 21:13*	WG2216812

SAMPLE RESULTS - 03

HA03724-05 L1700204
Collected date/time: 01/25/24 12:19

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.24		0.381	1.11	0.680	0.354	02/07/2024 17:35	WG2217310
(T) Barium	*106*					*30.0-143*	*02/07/2024 17:35*	WG2217310
(T) Yttrium	*109*					*30.0-136*	*02/07/2024 17:35*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.83		0.503	0.729	02/07/2024 17:35	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.598		0.328	0.152	0.262	0.194	02/02/2024 21:13	WG2216812
(T) Barium-133	*91.9*					*30.0-143*	*02/02/2024 21:13*	WG2216812

SAMPLE RESULTS - 04

HA03724-04 L1700204
Collected date/time: 01/25/24 13:32

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.09		0.223	0.766	0.384	0.202	02/07/2024 17:35	WG2217310
(T) Barium	*113*					*30.0-143*	*02/07/2024 17:35*	WG2217310
(T) Yttrium	*100*					*30.0-136*	*02/07/2024 17:35*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.16		0.246	0.418	02/07/2024 17:35	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0647	J	0.105	0.0487	0.166	0.137	02/06/2024 18:07	WG2219995
(T) Barium-133	*94.7*					*30.0-143*	*02/06/2024 18:07*	WG2219995

SAMPLE RESULTS - 05

HA03724-05 L1700204
Collected date/time: 01/25/24 12:22

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	3.83		0.593	1.03	0.996	0.523	02/07/2024 17:35	WG2217310
(T) Barium	*113*					*30.0-143*	*02/07/2024 17:35*	WG2217310
(T) Yttrium	*115*					*30.0-136*	*02/07/2024 17:35*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	6.32		0.853	1.01	02/07/2024 17:35	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	2.49		0.613	0.280	0.180	0.149	02/05/2024 23:58	WG2219995
(T) Barium-133	*85.5*					*30.0-143*	*02/05/2024 23:58*	WG2219995

SAMPLE RESULTS - 06

HA03724-06 L1700204
Collected date/time: 01/25/24 15:15

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.39		0.281	0.881	0.505	0.267	02/08/2024 17:08	WG2217310
(T) Barium	*118*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*117*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.27		0.456	0.533	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.886		0.359	0.170	0.172	0.142	02/05/2024 23:58	WG2219995
(T) Barium-133	*91.5*					*30.0-143*	*02/05/2024 23:58*	WG2219995

HA03724-07 SAMPLE RESULTS - 07

Collected date/time: 01/25/24 14:40 L1700204

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.15		0.254	0.783	0.463	0.242	02/08/2024 17:08	WG2217310
(T) Barium	*118*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*105*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.52		0.351	0.505	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.367		0.242	0.110	0.202	0.158	02/06/2024 18:07	WG2219995
(T) Barium-133	*89.5*					*30.0-143*	*02/06/2024 18:07*	WG2219995

SAMPLE RESULTS - 08

HA03724-08 L1700204
Collected date/time: 01/25/24 14:51

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	2.43		0.520	1.17	0.944	0.496	02/08/2024 17:08	WG2217310
(T) Barium	*107*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*107*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.51		0.707	0.977	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.08		0.479	0.151	0.251	0.207	02/06/2024 18:07	WG2219995
(T) Barium-133	*61.0*					*30.0-143*	*02/06/2024 18:07*	WG2219995

SAMPLE RESULTS - 09

HA03724-09
Collected date/time: 01/25/24 13:40
L1700204

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.20		0.568	1.74	1.08	0.564	02/08/2024 17:08	WG2217310
(T) Barium	*110*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*106*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.56		0.622	1.10	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.363		0.254	0.101	0.223	0.175	02/06/2024 18:07	WG2219995
(T) Barium-133	*78.9*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA03724-10 SAMPLE RESULTS - 10

Collected date/time: 01/25/24 11:40 L1700204

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.70		0.594	1.51	1.12	0.582	02/08/2024 17:08	WG2217310
(T) Barium	*98.8*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*105*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.71		0.732	1.14	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.01		0.428	0.160	0.214	0.176	02/06/2024 18:07	WG2219995
(T) Barium-133	*72.3*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA03724-11 SAMPLE RESULTS - 11

Collected date/time: 01/25/24 12:36 L1700204

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.85		0.329	0.821	0.587	0.308	02/08/2024 17:08	WG2217310
(T) Barium	*110*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*109*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.07		0.381	0.614	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.228		0.192	0.0804	0.181	0.150	02/06/2024 18:07	WG2219995
(T) Barium-133	*82.9*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA03724-12 SAMPLE RESULTS - 12

Collected date/time: 01/25/24 15:15 L1700204

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.13		0.352	1.11	0.658	0.344	02/08/2024 17:08	WG2217310
(T) Barium	*125*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*97.1*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.28		0.387	0.689	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.154	J	0.162	0.0732	0.203	0.154	02/06/2024 18:07	WG2219995
(T) Barium-133	*92.1*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA03724-13 SAMPLE RESULTS - 13

Collected date/time: 01/25/24 15:30 L1700204

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.839		0.269	0.956	0.503	0.262	02/08/2024 17:08	WG2217310
(T) Barium	*122*					*30.0-143*	*02/08/2024 17:08*	WG2217310
(T) Yttrium	*97.1*					*30.0-136*	*02/08/2024 17:08*	WG2217310

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.873		0.285	0.541	02/08/2024 17:08	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0345	U	0.0927	0.0352	0.199	0.164	02/06/2024 18:07	WG2219995
(T) Barium-133	*79.8*					*30.0-143*	*02/06/2024 18:07*	WG2219995

Method Blank (MB)

(MB) R4031681-1 02/07/24 17:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.788		0.174	0.303	0.159
(T) Barium	*117*		*117*		
(T) Yttrium	*91.3*		*91.3*		

L1700204-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1700204-01 02/07/24 17:35 • (DUP) R4031681-5 02/07/24 17:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.931	0.331	0.595	0.312	0.500	0.366	0.673	0.351	60.2	0.873	J	20	3
(T) Barium	*118*				*123*	*123*							
(T) Yttrium	*107*				*109*	*109*							

Laboratory Control Sample (LCS)

(LCS) R4031681-2 02/07/24 17:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.33	86.7	80.0-120	
(T) Barium			*120*		
(T) Yttrium			*88.4*		

L1700204-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700204-12 02/08/24 17:08 • (MS) R4031681-3 02/07/24 17:35 • (MSD) R4031681-4 02/07/24 17:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.13	14.1	13.4	77.9	73.6	1	70.0-130			5.15		20
(T) Barium		*125*			*117*	*120*							
(T) Yttrium		*97.1*			*104*	*112*							

Method Blank (MB)

(MB) R4030093-1 02/02/24 16:48

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-226	-0.00666	U	0.0351	0.0839	0.0587
(T) Barium-133	*85.7*		*85.7*		

L1700204-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1700204-01 02/02/24 21:13 • (DUP) R4030093-5 02/02/24 16:48

Analyte	Original Result	Original 2 sigma CE	Original MDA	Original Lc	DUP Result	DUP 2 sigma CE	DUP MDA	DUP Lc	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	pCi/l	+ / -	pCi/l	pCi/l	%			%	
Radium-226	0.232	0.287	0.403	0.269	0.00889	0.210	0.401	0.268	185	0.627	U	20	3
(T) Barium-133	*87.5*				*87.8*	*87.8*							

Laboratory Control Sample (LCS)

(LCS) R4030093-2 02/02/24 16:48

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.00	5.35	107	80.0-120	
(T) Barium-133			*85.5*		

L1700201-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700201-05 02/02/24 16:48 • (MS) R4030093-3 02/02/24 16:48 • (MSD) R4030093-4 02/02/24 16:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.291	21.9	21.4	108	105	1	75.0-125			2.54		20
(T) Barium-133		*88.8*			*86.6*	*82.4*							

Method Blank (MB)

(MB) R4031193-1 02/06/24 18:07

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0133	U	0.0565	0.0997	0.0665
(T) Barium-133	*88.3*		*88.3*		

L1701283-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1701283-06 02/06/24 18:07 • (DUP) R4031193-5 02/06/24 18:07

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.178	0.165	0.171	0.141	0.0856	0.168	0.283	0.206	70.0	0.391	U	20	3
(T) Barium-133	*93.0*				*91.3*	*91.3*							

Laboratory Control Sample (LCS)

(LCS) R4031193-2 02/06/24 18:07

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.46	89.3	80.0-120	
(T) Barium-133			*85.1*		

L1700204-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700204-13 02/06/24 18:07 • (MS) R4031193-3 02/06/24 18:07 • (MSD) R4031193-4 02/06/24 18:07

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0345	20.3	18.1	101	90.2	1	75.0-125			11.4		20
(T) Barium-133		*79.8*			*89.1*	*93.9*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
HA03724

A023

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1700204

Sample: HA03724-01
Name: BA02

Sampled: 01/25/24 14:39
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:39	10 Day TAT Required

Sample: HA03724-02
Name: BA03

Sampled: 01/25/24 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 13:25	10 Day TAT Required

-

Sample: HA03724-03
Name: BA03L

Sampled: 01/25/24 12:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:19	10 Day TAT Required

Sample: HA03724-04
Name: G60L

Sampled: 01/25/24 ~~15:32~~ 1332
Matrix: Ground Water
Preservative: HNO3, pH <2

-04 1125/24 26

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 15:32	10 Day TAT Required

Sample: HA03724-05
Name: G60S

Sampled: 01/25/24 12:22
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:22	10 Day TAT Required

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Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HA03724-06
Name: G62L

Sampled: 01/25/24 ~~14:07~~ 1515 1/25/24 dd
Matrix: Ground Water
Preservative: HNO3, pH <2 -06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:07	10 Day TAT Required

Sample: HA03724-07
Name: G64S

Sampled: 01/25/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2 -07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:40	10 Day TAT Required

Sample: HA03724-08
Name: OR03D

Sampled: 01/25/24 11:20
Matrix: Ground Water
Preservative: HNO3, pH <2 -08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 11:20	10 Day TAT Required

Sample: HA03724-09
Name: OM21

Sampled: 01/25/24 12:52
Matrix: Ground Water
Preservative: HNO3, pH <2 -09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:52	10 Day TAT Required

Sample: HA03724-10
Name: OM22D

Sampled: 01/25/24 14:51
Matrix: Ground Water
Preservative: HNO3, pH <2 -10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:51	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03724

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Peoria, IL 61615
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RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HA03724-06
Name: G62L

Sampled: 01/25/24 14:07
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:07	10 Day TAT Required

Sample: HA03724-07
Name: G64S

Sampled: 01/25/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:40	10 Day TAT Required

Sample: HA03724-08
Name: OR03D

Sampled: 01/25/24 ~~11:20~~ 1451 11/25/24 dd
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 11:20	10 Day TAT Required

Sample: HA03724-09
Name: OM21

Sampled: 01/25/24 ~~12:52~~ 1340 11/25/24 dd
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:52	10 Day TAT Required

Sample: HA03724-10
Name: OM22D

Sampled: 01/25/24 ~~14:51~~ 1140 11/25/24 dd
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:51	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03724

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Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LM000204

Sample: HA03724-11
Name: OM23D

Sampled: 01/25/24 ~~13:40~~ 1236
Matrix: Ground Water
Preservative: HNO3, pH <2

-11 1/25/24 dd

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 13:40	10 Day TAT Required

Sample: HA03724-12
Name: EB # 5

Sampled: 01/25/24 ~~11:40~~ 1515
Matrix: Ground Water
Preservative: HNO3, pH <2

-12 1/25/24 dd

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 11:40	10 Day TAT Required

Sample: HA03724-13
Name: EB # 6

Sampled: 01/25/24 15:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-13

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 15:30	10 Day TAT Required

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

Date Shipped: 1/29/24 Total # of Containers: 13 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	1/29/24 1210		
			1/30/24 0840

Sample Temperature Upon Receipt ____ °C
Sample(s) Received on Ice Y or N
Proper Bottles Received in Good Condition Y or N
Bottles Filled with Adequate Volume Y or N

Seal Present/Intact: Y N
Signed Accurate: Y N
Bottles arrive intact: Y N
Correct Bottles used Y N
Sufficient volume sent Y N
RA Screen <0.5 mR/hr Y N

Sample Receipt Checklist
If Applicable
VOA Zero Headspace: Y N
Pres. Correct/Check: Y N

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03724

A023

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1700204

Sample: HA03724-01
Name: BA02

Sampled: 01/25/24 14:39
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:39	10 Day TAT Required

Sample: HA03724-02
Name: BA03

Sampled: 01/25/24 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 13:25	10 Day TAT Required

-

Sample: HA03724-03
Name: BA03L

Sampled: 01/25/24 12:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:19	10 Day TAT Required

Sample: HA03724-04
Name: G60L

Sampled: 01/25/24 15:32
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 15:32	10 Day TAT Required

Sample: HA03724-05
Name: G60S

Sampled: 01/25/24 12:22
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:22	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03724

L1700204

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HA03724-06
Name: G62L

Sampled: 01/25/24 14:07
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:07	10 Day TAT Required

Sample: HA03724-07
Name: G64S

Sampled: 01/25/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:40	10 Day TAT Required

Sample: HA03724-08
Name: OR03D

Sampled: 01/25/24 11:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 11:20	10 Day TAT Required

Sample: HA03724-09
Name: OM21

Sampled: 01/25/24 12:52
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 12:52	10 Day TAT Required

Sample: HA03724-10
Name: OM22D

Sampled: 01/25/24 14:51
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 14:51	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
HA03724

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L700204

Sample: HA03724-11
Name: OM23D

Sampled: 01/25/24 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2 +11

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 13:40	10 Day TAT Required

Sample: HA03724-12
Name: EB #

Sampled: 01/25/24 11:40
Matrix: Ground Water
Preservative: HNO3, pH <2 -12

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 11:40	10 Day TAT Required

Sample: HA03724-13
Name: EB #

Sampled: 01/25/24 15:30
Matrix: Ground Water
Preservative: HNO3, pH <2 -13

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/07/24 16:00	07/23/24 15:30	10 Day TAT Required

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

Date Shipped: 1/29/24 Total # of Containers: 13 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	1/29/24 1210		
		[signature]	1/30/24
Relinquished By	Date/Time	Received By	Da

Sample Temperature Upon Receipt ____ °C
Sample(s) Received on Ice Y or N
Proper Bottles Received in Good Condition Y or N
Bottles Filled with Adequate Volume Y or N
Y or N

Sample Receipt Checklist
DOC Seal Present (Intact): Y N
DOC Signed Accurate. Y N
Bottles arrive intact. Y N
Correct bottles used. Y N
Sufficient volume sent. Y N
RA Screen <0.5 mR hr: Y N
If Applicable
VOA Zero Headspace: Y N
Pres. Correct/Check: Y N

L1700204

Tracking Numbers	Temperature
700378122723	18.1
2686	12.0
2631	13.3

Name

Date

ANALYTICAL REPORT

February 08, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1700201
Samples Received:	01/30/2024
Project Number:	HA03941
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

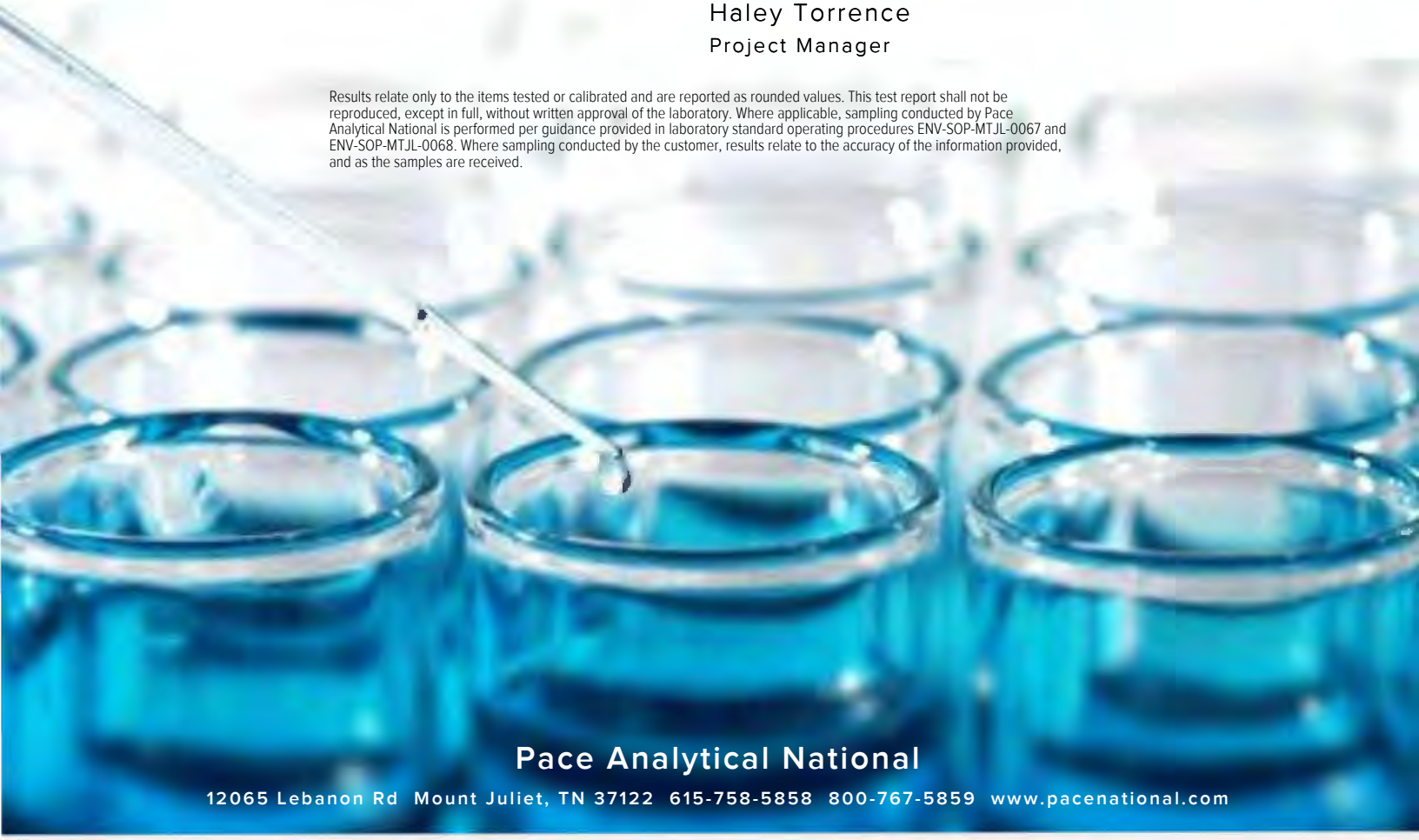


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SAMPLE SUMMARY

HA03941-01 L1700201-01 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				01/26/24 12:22	01/30/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 16:48	ZRG	Mt. Juliet, TN

HA03941-02 L1700201-02 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				01/26/24 12:22	01/30/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 16:48	ZRG	Mt. Juliet, TN

HA03941-03 L1700201-03 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				01/26/24 13:38	01/30/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 16:48	ZRG	Mt. Juliet, TN

HA03941-04 L1700201-04 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				01/26/24 14:53	01/30/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 16:48	ZRG	Mt. Juliet, TN

HA03941-05 L1700201-05 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				01/26/24 14:24	01/30/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 16:48	ZRG	Mt. Juliet, TN

HA03941-06 L1700201-06 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				01/26/24 13:54	01/30/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/03/24 13:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 16:48	ZRG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

HA03941-07 L1700201-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/26/24 12:10	01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

HA03941-08 L1700201-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/26/24 12:10	01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

HA03941-09 L1700201-09 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/26/24 13:00	01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

HA03941-10 L1700201-10 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/26/24 14:30	01/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2216557	1	01/31/24 17:14	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2216812	1	01/31/24 10:22	02/05/24 16:52	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2216812	1	01/31/24 10:22	02/02/24 21:13	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

SAMPLE RESULTS - 01

HA03941-01 L1700201
Collected date/time: 01/26/24 12:22

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.659		0.263	1.10	0.493	0.258	02/05/2024 16:52	WG2216557
(T) Barium	*111*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*89.1*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.09		0.386	0.558	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.429		0.283	0.129	0.261	0.194	02/02/2024 16:48	WG2216812
(T) Barium-133	*91.0*					*30.0-143*	*02/02/2024 16:48*	WG2216812

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 02

HA03941-02 L1700201
Collected date/time: 01/26/24 12:22

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.810		0.282	1.04	0.527	0.275	02/05/2024 16:52	WG2216557
(T) Barium	*110*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*87.9*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.47		0.441	0.585	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.665		0.339	0.162	0.255	0.190	02/02/2024 16:48	WG2216812
(T) Barium-133	*94.3*					*30.0-143*	*02/02/2024 16:48*	WG2216812

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.316	J	0.272	1.64	0.522	0.273	02/05/2024 16:52	WG2216557
(T) Barium	*102*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*87.0*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.32		0.535	0.630	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.00		0.461	0.189	0.353	0.250	02/02/2024 16:48	WG2216812
(T) Barium-133	*81.0*					*30.0-143*	*02/02/2024 16:48*	WG2216812

SAMPLE RESULTS - 04

HA03941-04 L1700201
Collected date/time: 01/26/24 14:53

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	3.36		0.613	1.12	1.09	0.572	02/05/2024 16:52	WG2216557
(T) Barium	*93.5*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*97.6*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	4.69		0.784	1.13	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.32		0.489	0.225	0.291	0.212	02/02/2024 16:48	WG2216812
(T) Barium-133	*88.5*					*30.0-143*	*02/02/2024 16:48*	WG2216812

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 05

HA03941-05 L1700201
Collected date/time: 01/26/24 14:24

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.497	J	0.280	1.30	0.532	0.277	02/05/2024 16:52	WG2216557
(T) Barium	*117*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*92.9*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.788		0.379	0.610	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.291	J	0.255	0.110	0.298	0.213	02/02/2024 16:48	WG2216812
(T) Barium-133	*88.8*					*30.0-143*	*02/02/2024 16:48*	WG2216812

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 06

HA03941-06 L1700201
Collected date/time: 01/26/24 13:54

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.26		0.356	1.06	0.647	0.338	02/03/2024 13:02	WG2216557
(T) Barium	*105*					*30.0-143*	*02/03/2024 13:02*	WG2216557
(T) Yttrium	*102*					*30.0-136*	*02/03/2024 13:02*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.44		0.416	0.711	02/03/2024 13:02	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.179	J	0.215	0.0890	0.296	0.215	02/02/2024 16:48	WG2216812
(T) Barium-133	*86.9*					*30.0-143*	*02/02/2024 16:48*	WG2216812

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HA03941-07 SAMPLE RESULTS - 07

Collected date/time: 01/26/24 12:10 L1700201

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.528	J	0.279	1.28	0.529	0.276	02/05/2024 16:52	WG2216557
(T) Barium	*110*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*89.0*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.840		0.388	0.617	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.312	J	0.269	0.117	0.318	0.223	02/02/2024 21:13	WG2216812
(T) Barium-133	*90.3*					*30.0-143*	*02/02/2024 21:13*	WG2216812

SAMPLE RESULTS - 08

HA03941-08 L1700201
Collected date/time: 01/26/24 12:10

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.538		0.242	1.13	0.456	0.239	02/05/2024 16:52	WG2216557
(T) Barium	*108*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*110*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.04		0.396	0.549	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.502		0.314	0.149	0.306	0.214	02/02/2024 21:13	WG2216812
(T) Barium-133	*96.2*					*30.0-143*	*02/02/2024 21:13*	WG2216812

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.84		0.569	1.42	1.05	0.552	02/05/2024 16:52	WG2216557
(T) Barium	*99.9*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*105*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.25		0.660	1.12	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.412		0.334	0.130	0.391	0.266	02/02/2024 21:13	WG2216812
(T) Barium-133	*81.7*					*30.0-143*	*02/02/2024 21:13*	WG2216812

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HA03941-10 SAMPLE RESULTS - 10

Collected date/time: 01/26/24 14:30 L1700201

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.541		0.203	1.02	0.379	0.200	02/05/2024 16:52	WG2216557
(T) Barium	*116*					*30.0-143*	*02/05/2024 16:52*	WG2216557
(T) Yttrium	*103*					*30.0-136*	*02/05/2024 16:52*	WG2216557

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.551		0.271	0.529	02/05/2024 16:52	WG2216812

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.00942	U	0.180	0.0600	0.369	0.256	02/02/2024 21:13	WG2216812
(T) Barium-133	*82.9*					*30.0-143*	*02/02/2024 21:13*	WG2216812

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4031133-1 02/03/24 13:02

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.811		0.141	0.243	0.129
(T) Barium	*119*		*119*		
(T) Yttrium	*98.7*		*98.7*		

L1699186-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1699186-05 02/03/24 13:02 • (DUP) R4031133-4 02/03/24 13:02

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.59	0.347	0.619	0.324	0.705	0.348	0.649	0.340	77.1	1.80		20	3
(T) Barium	*113*				*108*	*108*							
(T) Yttrium	*100*				*95.5*	*95.5*							

Laboratory Control Sample (LCS)

(LCS) R4031133-5 02/05/24 16:52

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.35	107	80.0-120	
(T) Barium			*118*		
(T) Yttrium			*99.3*		

L1700201-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700201-06 02/03/24 13:02 • (MS) R4031133-2 02/03/24 13:02 • (MSD) R4031133-3 02/03/24 13:02

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.26	18.7	16.3	104	89.8	1	70.0-130			13.7		20
(T) Barium		*105*			*107*	*110*							
(T) Yttrium		*102*			*105*	*99.9*							

Method Blank (MB)

(MB) R4030093-1 02/02/24 16:48

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.00666	U	0.0351	0.0839	0.0587
(T) Barium-133	*85.7*		*85.7*		

L1700204-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1700204-01 02/02/24 21:13 • (DUP) R4030093-5 02/02/24 16:48

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.232	0.287	0.403	0.269	0.00889	0.210	0.401	0.268	185	0.627	U	20	3
(T) Barium-133	*87.5*				*87.8*	*87.8*							

Laboratory Control Sample (LCS)

(LCS) R4030093-2 02/02/24 16:48

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.35	107	80.0-120	
(T) Barium-133			*85.5*		

L1700201-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700201-05 02/02/24 16:48 • (MS) R4030093-3 02/02/24 16:48 • (MSD) R4030093-4 02/02/24 16:48

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.291	21.9	21.4	108	105	1	75.0-125			2.54		20
(T) Barium-133		*88.8*			*86.6*	*82.4*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03941

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

A022

L700201

Sample: HA03941-01
Name: BA01

Sampled: 01/26/24 12:22
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 12:22	10 Day TAT Required

Sample: HA03941-02
Name: BA01 DUP

Sampled: 01/26/24 12:22
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 12:22	10 Day TAT Required

Sample: HA03941-03
Name: BA04

Sampled: 01/26/24 13:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 13:38	10 Day TAT Required

Sample: HA03941-04
Name: BA06

Sampled: 01/26/24 14:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 14:53	10 Day TAT Required

Sample: HA03941-05
Name: G57S

Sampled: 01/26/24 14:24
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 14:24	10 Day TAT Required

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03941

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1700201

Sample: HA03941-06
Name: OM07

Sampled: 01/26/24 13:54
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 13:54	10 Day TAT Required

Sample: HA03941-07
Name: OR11

Sampled: 01/26/24 12:10
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 12:10	10 Day TAT Required

Sample: HA03941-08
Name: OR11 DUP

Sampled: 01/26/24 12:10
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 12:10	10 Day TAT Required

Sample: HA03941-09
Name: OR20

Sampled: 01/26/24 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 13:00	10 Day TAT Required

Sample: HA03941-10
Name: EB #7

Sampled: 01/26/24 14:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/08/24 16:00	07/24/24 14:30	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA03941

L1700201

Sample Receipt Checklist

			If Applicable
COC Seal Present Intact:	Y N	VOA Zero Headspace:	Y N
COC Signed Accurate:	Y N	Pres. Correct Check:	Y N
Bottles arrive intact:	Y N		
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

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

Date Shipped: 1/29/24 Total # of Containers: 10 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	1/29/24 1220		
			1/30/24 0820

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

ANALYTICAL REPORT

February 14, 2024

Pace IR - Peoria, IL

Sample Delivery Group: L1701283

Samples Received: 01/31/2024

Project Number:

Description:

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

HA04059-01 L1701283-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/29/24 14:33	01/31/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA04059-02 L1701283-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/29/24 13:00	01/31/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA04059-03 L1701283-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/29/24 11:50	01/31/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA04059-04 L1701283-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/29/24 15:00	01/31/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA04059-05 L1701283-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/29/24 14:00	01/31/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

HA04059-06 L1701283-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/29/24 15:15	01/31/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2219995	1	02/05/24 11:15	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2219995	1	02/05/24 11:15	02/06/24 18:07	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HA04059-01 SAMPLE RESULTS - 01

Collected date/time: 01/29/24 14:33 L1701283

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.839		0.268	0.971	0.471	0.246	02/09/2024 16:57	WG2221106
(T) Barium	*104*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*98.0*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.01		0.312	0.499	02/09/2024 16:57	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.171		0.160	0.0772	0.165	0.136	02/06/2024 18:07	WG2219995
(T) Barium-133	*95.9*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA04059-02 SAMPLE RESULTS - 02

Collected date/time: 01/29/24 13:00 L1701283

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.24		0.314	0.892	0.546	0.284	02/09/2024 16:57	WG2221106
(T) Barium	*102*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*92.9*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.65		0.398	0.572	02/09/2024 16:57	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.403		0.245	0.108	0.172	0.142	02/06/2024 18:07	WG2219995
(T) Barium-133	*86.6*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA04059-05 SAMPLE RESULTS - 03

Collected date/time: 01/29/24 11:50 L1701283

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.406	J	0.380	1.98	0.691	0.360	02/09/2024 16:57	WG2221106
(T) Barium	*107*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*101*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.720		0.435	0.710	02/09/2024 16:57	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.314		0.212	0.0999	0.164	0.136	02/06/2024 18:07	WG2219995
(T) Barium-133	*92.7*					*30.0-143*	*02/06/2024 18:07*	WG2219995

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 04

HA04059-04 L1701283
Collected date/time: 01/29/24 15:00

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.952		0.275	0.953	0.481	0.251	02/09/2024 16:57	WG2221106
(T) Barium	*97.3*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*97.8*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.69		0.450	0.522	02/09/2024 16:57	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.737		0.356	0.138	0.202	0.167	02/06/2024 18:07	WG2219995
(T) Barium-133	*75.2*					*30.0-143*	*02/06/2024 18:07*	WG2219995

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 05

HA04059-05 L1701283
Collected date/time: 01/29/24 14:00

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.32		0.296	0.865	0.510	0.267	02/09/2024 16:57	WG2221106
(T) Barium	*98.3*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*89.5*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.36		0.484	0.537	02/09/2024 16:57	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.04		0.383	0.184	0.167	0.138	02/06/2024 18:07	WG2219995
(T) Barium-133	*92.4*					*30.0-143*	*02/06/2024 18:07*	WG2219995

HA04059-06 SAMPLE RESULTS - 06

Collected date/time: 01/29/24 15:15 L1701283

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.647	U	0.259	1.16	0.501	0.262	02/09/2024 16:57	WG2221106
(T) Barium	*190*	C1				*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*91.7*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.178	U	0.307	0.529	02/09/2024 16:57	WG2219995

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.178		0.165	0.0776	0.171	0.141	02/06/2024 18:07	WG2219995
(T) Barium-133	*93.0*					*30.0-143*	*02/06/2024 18:07*	WG2219995

Method Blank (MB)

(MB) R4032807-1 02/09/24 16:57

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.380		0.145	0.257	0.135
(T) Barium	*119*		*119*		
(T) Yttrium	*102*		*102*		

L1701283-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1701283-02 02/09/24 16:57 • (DUP) R4032807-5 02/09/24 16:57

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.24	0.314	0.546	0.284	1.37	0.393	0.688	0.359	9.80	0.254		20	3
(T) Barium	*102*				*111*	*111*							
(T) Yttrium	*92.9*				*93.9*	*93.9*							

Laboratory Control Sample (LCS)

(LCS) R4032807-2 02/09/24 16:57

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.24	105	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*99.2*		

L1702028-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702028-08 02/09/24 21:10 • (MS) R4032807-3 02/09/24 16:57 • (MSD) R4032807-4 02/09/24 16:57

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.318	16.7	16.9	98.2	99.1	1	70.0-130			0.893		20
(T) Barium		*120*			*125*	*113*							
(T) Yttrium		*97.7*			*95.5*	*97.8*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1701283-01,02,03,04,05,06

Method Blank (MB)

(MB) R4031193-1 02/06/24 18:07

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0133	U	0.0565	0.0997	0.0665
(T) Barium-133	*88.3*		*88.3*		

L1701283-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1701283-06 02/06/24 18:07 • (DUP) R4031193-5 02/06/24 18:07

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.178	0.165	0.171	0.141	0.0856	0.168	0.283	0.206	70.0	0.391	U	20	3
(T) Barium-133	*93.0*				*91.3*	*91.3*							

Laboratory Control Sample (LCS)

(LCS) R4031193-2 02/06/24 18:07

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.46	89.3	80.0-120	
(T) Barium-133			*85.1*		

L1700204-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1700204-13 02/06/24 18:07 • (MS) R4031193-3 02/06/24 18:07 • (MSD) R4031193-4 02/06/24 18:07

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0345	20.3	18.1	101	90.2	1	75.0-125			11.4		20
(T) Barium-133		*79.8*			*89.1*	*93.9*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

M106

Pace Analytical Services, LLC

HA04059

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L701283

Sample: HA04059-01
Name: G02S

Sampled: 01/29/24 14:33
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 14:33	10 Day TAT Required
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 14:33	10 Day TAT Required

Sample: HA04059-02
Name: OM12

Sampled: 01/29/24 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 13:00	10 Day TAT Required
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 13:00	10 Day TAT Required

Sample: HA04059-03
Name: OM16

Sampled: 01/29/24 11:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 11:50	10 Day TAT Required
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 11:50	10 Day TAT Required

Sample: HA04059-04
Name: OR13S

Sampled: 01/29/24 15:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 15:00	10 Day TAT Required
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 15:00	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA04059

L701883

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HA04059-05
Name: OR19

Sampled: 01/29/24 14:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 14:00	10 Day TAT Required
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 14:00	10 Day TAT Required

Sample: HA04059-06
Name: EB # 8

Sampled: 01/29/24 15:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 15:15	10 Day TAT Required
01-Radium 226/228 combined	02/09/24 16:00	07/27/24 15:15	10 Day TAT Required

7003 7812 3741

Sample Receipt Checklist
Seal Present Intact: N
Signed Accurate: N
Bottles arrive intact: Y
Correct bottles used: N
Sufficient volume sent: N
RA Screen <0.5 mR/hr: Y
If Applicable
VOA Zero Headspace: N
Pres Correct/Check: N

DPA-8
11.9 + 0 = 11.9

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

Date Shipped: 1/30/24 **Total # of Containers:** 6 **Sample Origin (State):** IL **PO #:** _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	1/30/24 1600		
		Caleb Tapp	1/31/24 09:30

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 2
DC-845-201-202

ANALYTICAL REPORT

February 20, 2024

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1702028
Samples Received:	02/03/2024
Project Number:	HA04294
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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SAMPLE SUMMARY

HA04294-01 L1702028-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/30/24 14:27	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

HA04294-02 L1702028-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/30/24 14:05	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

HA04294-03 L1702028-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/30/24 14:05	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

HA04294-04 L1702028-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/30/24 15:06	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

HA04294-05 L1702028-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/30/24 15:31	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

HA04294-06 L1702028-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	01/30/24 11:36	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HA04294-07 L1702028-07 Non-Potable Water		01/30/24 15:55	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HA04294-08 L1702028-08 Non-Potable Water		01/30/24 15:55	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 21:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 21:10	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 02/14/24 15:44

Project Narrative

SAMPLE RESULTS - 01

HA04294-01 L1702028
Collected date/time: 01/30/24 14:27

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.548		0.201	1.02	0.380	0.200	02/09/2024 21:10	WG2221106
(T) Barium	*118*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*96.0*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.696		0.263	0.438	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.149	J	0.170	0.0675	0.218	0.171	02/09/2024 14:35	WG2220369
(T) Barium-133	*80.7*					*30.0-143*	*02/09/2024 14:35*	WG2220369

HA04294-02 SAMPLE RESULTS - 02

Collected date/time: 01/30/24 14:05 L1702028

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.243	J	0.248	1.70	0.483	0.252	02/09/2024 21:10	WG2221106
(T) Barium	*109*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*104*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.430	J	0.317	0.534	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.187	J	0.198	0.0675	0.227	0.188	02/09/2024 14:35	WG2220369
(T) Barium-133	*67.9*					*30.0-143*	*02/09/2024 14:35*	WG2220369

HA04294-05 SAMPLE RESULTS - 03

Collected date/time: 01/30/24 14:05 L1702028

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.668		0.213	0.948	0.400	0.210	02/09/2024 21:10	WG2221106
(T) Barium	*102*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*96.4*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.967		0.314	0.449	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.299		0.231	0.0868	0.203	0.167	02/09/2024 14:35	WG2220369
(T) Barium-133	*74.1*					*30.0-143*	*02/09/2024 14:35*	WG2220369

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.34		0.599	1.72	1.14	0.595	02/09/2024 21:10	WG2221106
(T) Barium	*118*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*95.6*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.13		0.726	1.18	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.791		0.410	0.131	0.297	0.226	02/09/2024 14:35	WG2220369
(T) Barium-133	*62.8*					*30.0-143*	*02/09/2024 14:35*	WG2220369

SAMPLE RESULTS - 05

HA04294-05 L1702028
Collected date/time: 01/30/24 15:31

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.04		0.280	0.909	0.521	0.272	02/09/2024 21:10	WG2221106
(T) Barium	*102*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*87.9*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.46		0.386	0.557	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.416		0.266	0.110	0.196	0.162	02/09/2024 14:35	WG2220369
(T) Barium-133	*81.2*					*30.0-143*	*02/09/2024 14:35*	WG2220369

HA04294-06 SAMPLE RESULTS - 06

Collected date/time: 01/30/24 11:36 L1702028

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.17		0.238	0.740	0.432	0.226	02/09/2024 21:10	WG2221106
(T) Barium	*111*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*104*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.42		0.318	0.476	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.251		0.211	0.0845	0.199	0.165	02/09/2024 14:35	WG2220369
(T) Barium-133	*79.2*					*30.0-143*	*02/09/2024 14:35*	WG2220369

HA04294-07 SAMPLE RESULTS - 07

Collected date/time: 01/30/24 15:55 L1702028

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.613		0.244	1.04	0.462	0.241	02/09/2024 21:10	WG2221106
(T) Barium	*118*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*104*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.613		0.246	0.488	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.00681	U	0.0298	0.00647	0.157	0.130	02/09/2024 14:35	WG2220369
(T) Barium-133	*95.0*					*30.0-143*	*02/09/2024 14:35*	WG2220369

HA04294-08 SAMPLE RESULTS - 08

Collected date/time: 01/30/24 15:55 L1702028

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.318	J	0.268	1.55	0.519	0.270	02/09/2024 21:10	WG2221106
(T) Barium	*120*					*30.0-143*	*02/09/2024 21:10*	WG2221106
(T) Yttrium	*97.7*					*30.0-136*	*02/09/2024 21:10*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.346	J	0.278	0.544	02/09/2024 21:10	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0281	U	0.0753	0.0337	0.162	0.134	02/09/2024 14:35	WG2220369
(T) Barium-133	*94.1*					*30.0-143*	*02/09/2024 14:35*	WG2220369

Method Blank (MB)

(MB) R4032807-1 02/09/24 16:57

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.380		0.145	0.257	0.135
(T) Barium	*119*		*119*		
(T) Yttrium	*102*		*102*		

L1701283-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1701283-02 02/09/24 16:57 • (DUP) R4032807-5 02/09/24 16:57

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.24	0.314	0.546	0.284	1.37	0.393	0.688	0.359	9.80	0.254		20	3
(T) Barium	*102*				*111*	*111*							
(T) Yttrium	*92.9*				*93.9*	*93.9*							

Laboratory Control Sample (LCS)

(LCS) R4032807-2 02/09/24 16:57

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.24	105	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*99.2*		

L1702028-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702028-08 02/09/24 21:10 • (MS) R4032807-3 02/09/24 16:57 • (MSD) R4032807-4 02/09/24 16:57

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.318	16.7	16.9	98.2	99.1	1	70.0-130			0.893		20
(T) Barium		*120*			*125*	*113*							
(T) Yttrium		*97.7*			*95.5*	*97.8*							

WG2220369 QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1702028-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R4033436-1 02/08/24 20:40

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00234	U	0.0112	0.0274	0.0207
(T) Barium-133	*80.2*		*80.2*		

L1702023-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1702023-02 02/09/24 14:35 • (DUP) R4033436-5 02/09/24 14:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.372	0.251	0.195	0.161	0.0320	0.0858	0.184	0.152	168	1.28	U	20	3
(T) Barium-133	*78.5*				*85.0*	*85.0*							

Laboratory Control Sample (LCS)

(LCS) R4033436-2 02/09/24 14:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.63	92.6	80.0-120	
(T) Barium-133			*89.7*		

L1702028-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702028-07 02/09/24 14:35 • (MS) R4033436-3 02/09/24 14:35 • (MSD) R4033436-4 02/09/24 14:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00681	19.3	20.9	96.4	104	1	75.0-125			7.92		20
(T) Barium-133		*95.0*			*88.1*	*62.8*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA04294

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1702.28

Sample: HA04294-01
Name: G54L

Sampled: 01/30/24 14:27
Matrix: Ground Water
Preservative: HNO3, pH <2

01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 14:27	10 Day TAT Required

Sample: HA04294-02
Name: OM24D

Sampled: 01/30/24 14:05
Matrix: Ground Water
Preservative: HNO3, pH <2

02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 14:05	10 Day TAT Required

Sample: HA04294-03
Name: OM24D DUP

Sampled: 01/30/24 14:05
Matrix: Ground Water
Preservative: HNO3, pH <2

03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 14:05	10 Day TAT Required

Sample: HA04294-04
Name: OM25S

Sampled: 01/30/24 15:06
Matrix: Ground Water
Preservative: HNO3, pH <2

04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 15:06	10 Day TAT Required

Sample: HA04294-05
Name: OR02

Sampled: 01/30/24 ~~15:36~~ 1531 1/30/24
Matrix: Ground Water
Preservative: HNO3, pH <2

05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 15:36	10 Day TAT Required

2-3-24 0900

SUBCONTRACT ORDER

Transfer (

Pace Analy

H

Sample Receipt Checklist

			If Applicable
COC Seal Present/Intact:	Y N		
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

AMB

7003 7812 4954

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

E245

L1702028

Sample: HA04294-06
Name: OR13D

Sampled: 01/30/24 11:36
Matrix: Ground Water
Preservative: HNO3, pH <2

06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 11:36	10 Day TAT Required

Sample: HA04294-07
Name: EB # 9

Sampled: 01/30/24 15:55
Matrix: Ground Water
Preservative: HNO3, pH <2

07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 15:55	10 Day TAT Required

Sample: HA04294-08
Name: EB # 10

Sampled: 01/30/24 15:55
Matrix: Ground Water
Preservative: HNO3, pH <2

08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/12/24 16:00	07/28/24 15:55	10 Day TAT Required

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

Date Shipped: 2/1/24 Total # of Containers: 8 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2/1/24 1200		
		[signature]	2-3-24 0900

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

ANALYTICAL REPORT

February 14, 2024

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Pace IR - Peoria, IL

Sample Delivery Group:	L1702023
Samples Received:	02/03/2024
Project Number:	HA04485
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HA04485-01 L1702023-01 Non-Potable Water		01/31/24 10:50	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 16:57	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HA04485-02 L1702023-02 Non-Potable Water		01/31/24 15:15	02/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2221106	1	02/06/24 19:38	02/09/24 16:57	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2220369	1	02/07/24 10:16	02/09/24 16:57	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2220369	1	02/07/24 10:16	02/09/24 14:35	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

SAMPLE RESULTS - 01

HA04485-01 L1702023
Collected date/time: 01/31/24 10:50

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.922		0.218	0.845	0.374	0.198	02/09/2024 16:57	WG2221106
(T) Barium	*109*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*96.9*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.25		0.327	0.437	02/09/2024 16:57	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.327		0.244	0.0979	0.227	0.178	02/09/2024 14:35	WG2220369
(T) Barium-133	*79.5*					*30.0-143*	*02/09/2024 14:35*	WG2220369

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HA04485-02 SAMPLE RESULTS - 02

Collected date/time: 01/31/24 15:15 L1702023

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.223	J	0.268	1.98	0.490	0.256	02/09/2024 16:57	WG2221106
(T) Barium	*113*					*30.0-143*	*02/09/2024 16:57*	WG2221106
(T) Yttrium	*92.3*					*30.0-136*	*02/09/2024 16:57*	WG2221106

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.595		0.367	0.527	02/09/2024 16:57	WG2220369

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.372		0.251	0.100	0.195	0.161	02/09/2024 14:35	WG2220369
(T) Barium-133	*78.5*					*30.0-143*	*02/09/2024 14:35*	WG2220369

WG2221106 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1702023-01,02

Method Blank (MB)

(MB) R4032807-1 02/09/24 16:57

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.380		0.145	0.257	0.135
(T) Barium	*119*		*119*		
(T) Yttrium	*102*		*102*		

L1701283-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1701283-02 02/09/24 16:57 • (DUP) R4032807-5 02/09/24 16:57

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.24	0.314	0.546	0.284	1.37	0.393	0.688	0.359	9.80	0.254		20	3
(T) Barium	*102*				*111*	*111*							
(T) Yttrium	*92.9*				*93.9*	*93.9*							

Laboratory Control Sample (LCS)

(LCS) R4032807-2 02/09/24 16:57

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.24	105	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*99.2*		

L1702028-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702028-08 02/09/24 21:10 • (MS) R4032807-3 02/09/24 16:57 • (MSD) R4032807-4 02/09/24 16:57

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.318	16.7	16.9	98.2	99.1	1	70.0-130			0.893		20
(T) Barium		*120*			*125*	*113*							
(T) Yttrium		*97.7*			*95.5*	*97.8*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1702023-01,02

Method Blank (MB)

(MB) R4033436-1 02/08/24 20:40

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00234	U	0.0112	0.0274	0.0207
(T) Barium-133	*80.2*		*80.2*		

L1702023-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1702023-02 02/09/24 14:35 • (DUP) R4033436-5 02/09/24 14:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.372	0.251	0.195	0.161	0.0320	0.0858	0.184	0.152	168	1.28	U	20	3
(T) Barium-133	*78.5*				*85.0*	*85.0*							

Laboratory Control Sample (LCS)

(LCS) R4033436-2 02/09/24 14:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.63	92.6	80.0-120	
(T) Barium-133			*89.7*		

L1702028-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702028-07 02/09/24 14:35 • (MS) R4033436-3 02/09/24 14:35 • (MSD) R4033436-4 02/09/24 14:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.00681	19.3	20.9	96.4	104	1	75.0-125			7.92		20
(T) Barium-133		*95.0*			*88.1*	*62.8*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HA04485

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

E244

L170 2023

Sample: HA04485-01
Name: P60

Sampled: 01/31/24 10:50
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/13/24 16:00	07/29/24 10:50	10 Day TAT Required

01

Sample: HA04485-02
Name: EB #11

Sampled: 01/31/24 15:15
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/13/24 16:00	07/29/24 15:15	10 Day TAT Required

02

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N	AMB	
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N	7003 7512 4954	

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

Date Shipped: 2/1/24 Total # of Containers: 2 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2/1/24 1200		
		[signature]	2-3-24 0900

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

ANALYTICAL REPORT

February 23, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1703274
Samples Received:	02/07/2024
Project Number:	HB00520
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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Al: Accreditations & Locations 12
Sc: Sample Chain of Custody 13

SAMPLE SUMMARY

HB00520-01 L1703274-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	02/05/24 14:40	02/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2222935	1	02/09/24 15:55	02/19/24 22:20	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2223299	1	02/09/24 12:18	02/19/24 22:20	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2223299	1	02/09/24 12:18	02/12/24 22:35	ZRG	Mt. Juliet, TN

HB00520-02 L1703274-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	02/05/24 13:29	02/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2222935	1	02/09/24 15:55	02/19/24 22:20	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2223299	1	02/09/24 12:18	02/19/24 22:20	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2223299	1	02/09/24 12:18	02/12/24 22:35	ZRG	Mt. Juliet, TN

HB00520-03 L1703274-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	02/05/24 11:27	02/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2222935	1	02/09/24 15:55	02/19/24 22:20	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2223299	1	02/09/24 12:18	02/19/24 22:20	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2223299	1	02/09/24 12:18	02/12/24 22:35	ZRG	Mt. Juliet, TN

HB00520-04 L1703274-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	02/05/24 15:00	02/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2222935	1	02/09/24 15:55	02/19/24 22:20	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2223299	1	02/09/24 12:18	02/19/24 22:20	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2223299	1	02/09/24 12:18	02/12/24 22:35	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HB00520-04 SAMPLE RESULTS - 01

Collected date/time: 02/05/24 14:40 L1703274

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.14		0.400	1.21	0.752	0.392	02/19/2024 22:20	WG2222935
(T) Barium	*94.6*					*30.0-143*	*02/19/2024 22:20*	WG2222935
(T) Yttrium	*95.9*					*30.0-136*	*02/19/2024 22:20*	WG2222935

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.29		0.463	0.832	02/19/2024 22:20	WG2223299

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.146	J	0.233	0.0889	0.357	0.247	02/12/2024 22:35	WG2223299
(T) Barium-133	*84.0*					*30.0-143*	*02/12/2024 22:35*	WG2223299

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 02

HB00520-02 L1703274
Collected date/time: 02/05/24 13:29

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.47		0.350	0.960	0.645	0.337	02/19/2024 22:20	WG2222935
(T) Barium	*110*					*30.0-143*	*02/19/2024 22:20*	WG2222935
(T) Yttrium	*97.7*					*30.0-136*	*02/19/2024 22:20*	WG2222935

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.17		0.516	0.715	02/19/2024 22:20	WG2223299

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.703		0.379	0.156	0.309	0.225	02/12/2024 22:35	WG2223299
(T) Barium-133	*81.7*					*30.0-143*	*02/12/2024 22:35*	WG2223299

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HB00520-03 SAMPLE RESULTS - 03

Collected date/time: 02/05/24 11:27 L1703274

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.0604	U	0.240	3.34	0.474	0.247	02/19/2024 22:20	WG2222935
(T) Barium	*124*					*30.0-143*	*02/19/2024 22:20*	WG2222935
(T) Yttrium	*97.8*					*30.0-136*	*02/19/2024 22:20*	WG2222935

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.290	J	0.330	0.526	02/19/2024 22:20	WG2223299

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.290		0.226	0.100	0.227	0.173	02/12/2024 22:35	WG2223299
(T) Barium-133	*89.1*					*30.0-143*	*02/12/2024 22:35*	WG2223299

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.423	J	0.282	1.37	0.541	0.281	02/19/2024 22:20	WG2222935
(T) Barium	*107*					*30.0-143*	*02/19/2024 22:20*	WG2222935
(T) Yttrium	*109*					*30.0-136*	*02/19/2024 22:20*	WG2222935

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.423	J	0.300	0.627	02/19/2024 22:20	WG2223299

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0609	U	0.101	0.0200	0.316	0.224	02/12/2024 22:35	WG2223299
(T) Barium-133	*86.2*					*30.0-143*	*02/12/2024 22:35*	WG2223299

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4036174-1 02/19/24 16:47

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.986		0.155	0.260	0.137
(T) Barium	*112*		*112*		
(T) Yttrium	*106*		*106*		

L1700636-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1700636-01 02/19/24 16:47 • (DUP) R4036174-5 02/19/24 16:47

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.76	0.362	0.635	0.332	1.42	0.384	0.686	0.358	21.5	0.648		20	3
(T) Barium					*113*	*113*							
(T) Yttrium					*102*	*102*							

Laboratory Control Sample (LCS)

(LCS) R4036174-2 02/19/24 16:47

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.74	115	80.0-120	
(T) Barium			*112*		
(T) Yttrium			*99.5*		

L1702038-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702038-04 02/19/24 22:20 • (MS) R4036174-3 02/19/24 16:47 • (MSD) R4036174-4 02/19/24 16:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.25	19.6	21.0	110	118	1	70.0-130			7.09		20
(T) Barium		*120*			*101*	*114*							
(T) Yttrium		*99.2*			*102*	*99.5*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M L1703274-01,02,03,04

Method Blank (MB)

(MB) R4035159-1 02/12/24 22:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0371	J	0.0308	0.0410	0.0261
(T) Barium-133	*91.6*		*91.6*		

L1703637-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1703637-01 02/12/24 22:35 • (DUP) R4035159-5 02/12/24 22:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0305	0.125	0.298	0.207	0.189	0.196	0.250	0.182	200	0.945	J	20	3
(T) Barium-133	*95.3*				*94.9*	*94.9*							

Laboratory Control Sample (LCS)

(LCS) R4035159-2 02/12/24 22:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.70	94.1	80.0-120	
(T) Barium-133			*92.8*		

L1703274-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1703274-04 02/12/24 22:35 • (MS) R4035159-3 02/12/24 22:35 • (MSD) R4035159-4 02/12/24 22:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0609	20.8	21.8	104	109	1	75.0-125			4.66		20
(T) Barium-133		*86.2*			*91.0*	*84.0*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

A048

Pace Analytical Services, LLC
HB00520

LT703274

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HB00520-01
Name: BA02L
Sampled: 02/05/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2 C2 -01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 14:40	10 Day TAT Required
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 14:40	10 Day TAT Required

Sample: HB00520-02
Name: BA05
Sampled: 02/05/24 ~~13:20~~ 1320 2/5/24 dab
Matrix: Ground Water
Preservative: HNO3, pH <2 C2 -02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 13:20	10 Day TAT Required
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 13:20	10 Day TAT Required

Sample: HB00520-03
Name: OM17
Sampled: 02/05/24 11:27
Matrix: Ground Water
Preservative: HNO3, pH <2 C2 -03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 11:27	10 Day TAT Required
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 11:27	10 Day TAT Required

Sample: HB00520-04
Name: EB #13
Sampled: 02/05/24 15:00
Matrix: Ground Water
Preservative: HNO3, pH <2 C2 -04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 15:00	10 Day TAT Required
01-Radium 226/228 combined	02/16/24 16:00	08/03/24 15:00	10 Day TAT Required

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HB00520

L703274

Sample Receipt Checklist

			If Applicable	
COC Seal Present/Intact:	Y N		VOA Zero Headspace:	Y N
COC Signed Accurate:	Y N		Pres. Correct/Check:	Y N
Bottles arrive intact:	Y N			
Correct bottles used:	Y N			
Sufficient volume sent:	Y N			
RA Screen <0.5 mR/hr:	Y N			

PH-10BDH6021 TRC-23623R2
CR6-20221V

5.2+0=5.2 DDAS

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

Date Shipped: 2/6/24 **Total # of Containers:** 4 **Sample Origin (State):** IL **PO #:** _____

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

Relinquished By	Date/Time	Received By	Date/Time
	2/6/24 0755		
			2/7/24 0900

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

ANALYTICAL REPORT

February 29, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1704318
Samples Received:	02/09/2024
Project Number:	HB00823
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HB00823-01 L1704318-01 Non-Potable Water		02/06/24 12:30	02/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2224844	1	02/12/24 22:40	02/20/24 22:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2224808	1	02/13/24 13:12	02/20/24 22:23	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2224808	1	02/13/24 13:12	02/15/24 18:19	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HB00823-02 L1704318-02 Non-Potable Water		02/06/24 11:53	02/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2224844	1	02/12/24 22:40	02/20/24 22:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2224808	1	02/13/24 13:12	02/20/24 22:23	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2224808	1	02/13/24 13:12	02/15/24 18:19	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HB00823-01 SAMPLE RESULTS - 01 L1704318

Collected date/time: 02/06/24 13:30

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.18		0.265	0.929	0.486	0.257	02/20/2024 22:23	WG2224844
(T) Barium	*107*					*30.0-143*	*02/20/2024 22:23*	WG2224844
(T) Yttrium	*106*					*30.0-136*	*02/20/2024 22:23*	WG2224844

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.38		0.323	0.524	02/20/2024 22:23	WG2224808

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.209		0.185	0.0826	0.197	0.155	02/15/2024 18:19	WG2224808
(T) Barium-133	*89.2*					*30.0-143*	*02/15/2024 18:19*	WG2224808

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 02

HB00823-02 L1704318
Collected date/time: 02/06/24 11:53

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.655		0.181	0.877	0.339	0.180	02/20/2024 22:23	WG2224844
(T) Barium	*108*					*30.0-143*	*02/20/2024 22:23*	WG2224844
(T) Yttrium	*109*					*30.0-136*	*02/20/2024 22:23*	WG2224844

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.844		0.252	0.385	02/20/2024 22:23	WG2224808

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.190		0.176	0.0755	0.182	0.150	02/15/2024 18:19	WG2224808
(T) Barium-133	*84.8*					*30.0-143*	*02/15/2024 18:19*	WG2224808

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4039029-1 02/20/24 18:02

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.245	U	0.239	0.228	0.117
(T) Barium	*110*		*110*		
(T) Yttrium	*90.6*		*90.6*		

L1704318-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1704318-02 02/20/24 22:23 • (DUP) R4039029-5 02/20/24 18:02

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.655	0.181	0.339	0.180	1.45	0.291	0.511	0.270	75.3	2.31		20	3
(T) Barium	*108*				*117*	*117*							
(T) Yttrium	*109*				*102*	*102*							

Laboratory Control Sample (LCS)

(LCS) R4039029-2 02/20/24 18:02

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.32	106	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*105*		

L1704318-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1704318-01 02/20/24 22:23 • (MS) R4039029-3 02/20/24 18:02 • (MSD) R4039029-4 02/20/24 18:02

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.18	16.4	15.3	91.0	84.5	1	70.0-130			6.88		20
(T) Barium		*107*			*109*	*112*							
(T) Yttrium		*106*			*112*	*107*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1704318-01,02

Method Blank (MB)

(MB) R4035819-1 02/14/24 23:30

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0260	J	0.0368	0.0575	0.0366
(T) Barium-133	*75.0*		*75.0*		

L1704318-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1704318-01 02/15/24 18:19 • (DUP) R4035819-5 02/14/24 23:30

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.209	0.185	0.197	0.155	0.113	0.141	0.185	0.153	60.2	0.417	J	20	3
(T) Barium-133	*89.2*				*84.6*	*84.6*							

Laboratory Control Sample (LCS)

(LCS) R4035819-2 02/14/24 23:30

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.67	113	80.0-120	
(T) Barium-133			*72.3*		

L1704298-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1704298-01 02/14/24 23:30 • (MS) R4035819-3 02/14/24 23:30 • (MSD) R4035819-4 02/14/24 23:30

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	8.85	27.2	25.6	91.6	83.6	1	75.0-125			6.11		20
(T) Barium-133		*102*			*103*	*103*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC C091

HB00823

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1704318

Sample: HB00823-01
Name: OM01

Sampled: 02/06/24 12:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 12:30	10 Day TAT Required
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 12:30	10 Day TAT Required

Sample: HB00823-02
Name: OR06A

Sampled: 02/06/24 11:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 11:53	10 Day TAT Required
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 11:53	10 Day TAT Required

Sample Receipt Checklist

COC Seal Present Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
PA Screen <0.5 mR/hr:	Y N		

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

Date Shipped: 2/8/24 Total # of Containers: 2 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2/8/24 1115		
		T. Hawk	2/9/24 0800

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

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC C091

HB00823

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1704316

Sample: HB00823-01 -01
Name: OM01
Sampled: 02/06/24 12:30
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 12:30	10 Day TAT Required
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 12:30	10 Day TAT Required

Sample: HB00823-02 -02
Name: OR06A
Sampled: 02/06/24 11:53
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 11:53	10 Day TAT Required
01-Radium 226/228 combined	02/19/24 16:00	08/04/24 11:53	10 Day TAT Required

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	N	VOA Zero Headspace	N
COC Signed/Accurate:	N	Pres. Correct/Check:	N
Bottles arrive intact.	N		
Correct bottles used:	N		
Sufficient volume sent:	N		
RA screen <0.5 mR hr:	N		

Amb

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

Date Shipped: 2/8/24 **Total # of Containers:** 2 **Sample Origin (State):** IL **PO #:** _____

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

Relinquished By	Date/Time	Received By	Date/Time
	2/8/24 1115		
Relinquished By	Date/Time	Received By	Date/Time
		T. Haun	2/9/24 0800

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

ANALYTICAL REPORT

March 08, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1705231
Samples Received:	02/13/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Nancy McLaine
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

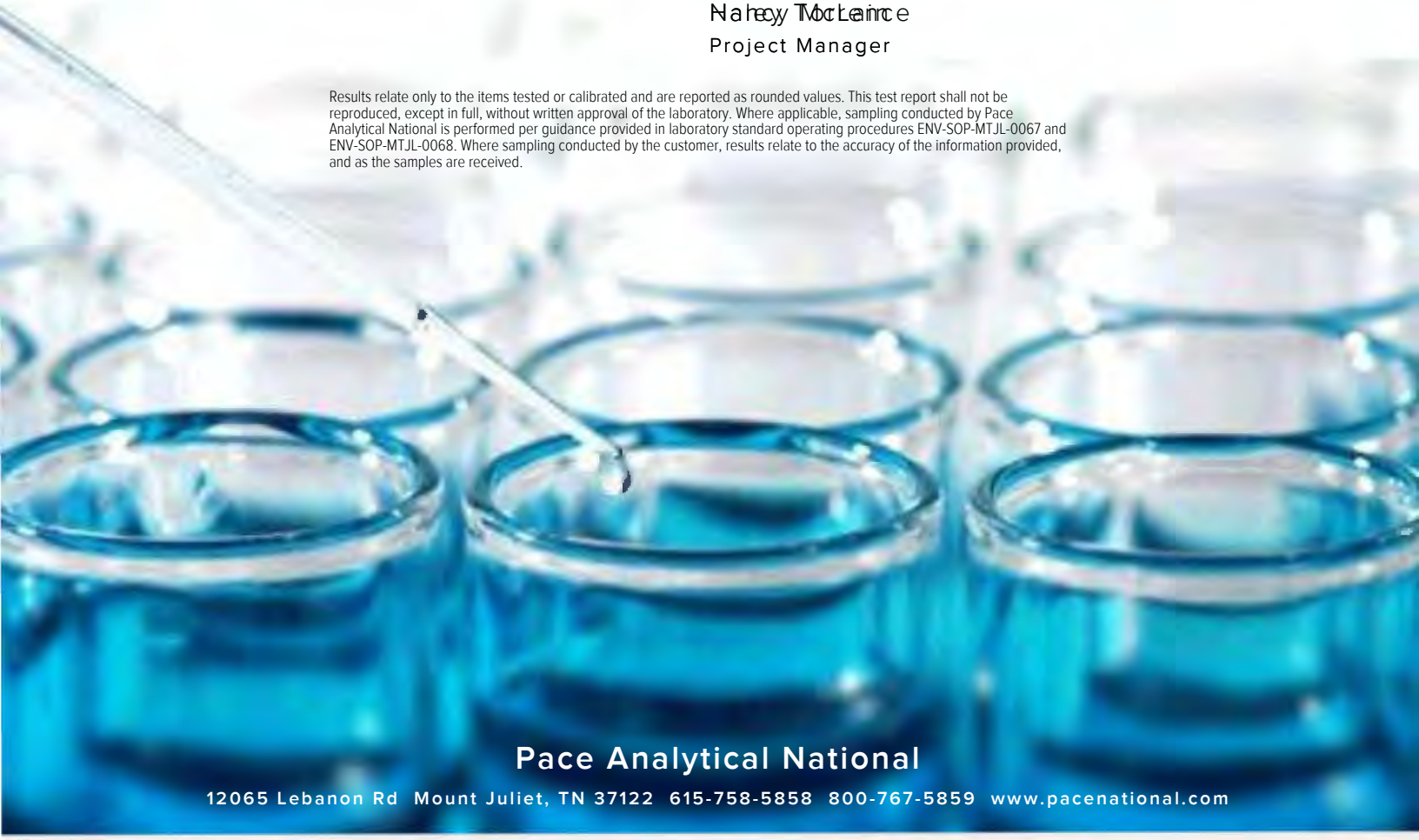


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SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HB01644-01 L1705231-01 Non-Potable Water		02/08/24 12:18	02/13/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2231206	1	02/21/24 23:50	02/28/24 21:29	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2227301	1	02/19/24 11:45	02/28/24 21:29	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2227301	1	02/19/24 11:45	02/22/24 14:33	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Nancy McLaine
Project Manager

SAMPLE RESULTS - 01

HB01644-01 L1705231
Collected date/time: 02/08/24 13:18

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.717		0.281	1.15	0.237	0.123	02/28/2024 21:29	WG2231206
(T) Barium	*123*					*30.0-143*	*02/28/2024 21:29*	WG2231206
(T) Yttrium	*111*					*30.0-136*	*02/28/2024 21:29*	WG2231206

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.724		0.316	0.381	02/28/2024 21:29	WG2227301

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.00760	U	0.145	0.0451	0.298	0.206	02/22/2024 14:33	WG2227301
(T) Barium-133	*77.3*					*30.0-143*	*02/22/2024 14:33*	WG2227301

Method Blank (MB)

(MB) R4042409-1 02/28/24 21:29

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.384		0.182	0.155	
(T) Barium	*120*		*120*		
(T) Yttrium	*108*		*108*		

L1703250-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1703250-01 03/04/24 21:31 • (DUP) R4042409-6 03/04/24 21:31

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	299	1.97	0.631	0.331	384	2.22	0.548		24.7	28.5	J3	20	3
(T) Barium	*587*				*930*	*930*					C1		
(T) Yttrium	*101*				*99.2*	*99.2*							

Laboratory Control Sample (LCS)

(LCS) R4042409-2 02/28/24 21:29

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.81	96.2	80.0-120	
(T) Barium			*118*		
(T) Yttrium			*103*		

L1702038-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1702038-08 02/28/24 21:29 • (MS) R4042409-3 02/28/24 21:29 • (MSD) R4042409-4 02/28/24 21:29

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.26	16.4	15.6	90.7	85.6	1	70.0-130			5.26		20
(T) Barium		*126*			*127*	*126*							
(T) Yttrium		*97.8*			*108*	*101*							

WG2227301 QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M L1705231-01

Method Blank (MB)

(MB) R4038342-1 02/22/24 14:33

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0133	U	0.0237	0.0768	0.0551
(T) Barium-133	*80.8*		*80.8*		

L1705233-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1705233-11 02/22/24 14:33 • (DUP) R4038342-5 02/22/24 14:33

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.000	0.112	0.268	0.195	0.0624	0.187	0.337	0.236	200	0.286	U	20	3
(T) Barium-133	*88.5*				*74.0*	*74.0*							

Laboratory Control Sample (LCS)

(LCS) R4038342-2 02/22/24 14:33

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.80	95.9	80.0-120	
(T) Barium-133			*75.0*		

L1705231-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1705231-01 02/22/24 14:33 • (MS) R4038342-3 02/22/24 14:33 • (MSD) R4038342-4 02/22/24 14:33

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.00760	19.3	19.9	96.4	99.4	1	75.0-125			3.06		20
(T) Barium-133		*77.3*			*62.7*	*67.3*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HB01644

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

D046

L705231

Sample: HB01644-01
Name: G64L

Sampled: 02/08/24 12:18
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	02/21/24 16:00	08/06/24 12:18	10 Day TAT Required
01-Radium 226/228 combined	02/21/24 16:00	08/06/24 12:18	10 Day TAT Required

Sample Receipt Checklist

COC Seal Present/Intact: Y N — If Applicable
COC Signed/Accurate: Y N — VOA Zero Headspace: Y N
Bottles arrive intact: Y N — Pres. Correct/Check: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RA Screen <0.5 mR/hr: Y N

7003 7812 8082

17.5+0=17.5 DPAS

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

Date Shipped: 2/9/24 Total # of Containers: 1 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2/9/24 1145		
		N. Dawn	2/13/24 0900

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

HA02920

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 10

Section A Required Client Information

Company:	Vistra Corp-Duck Creek
Address:	11261 North Cabin 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 Dinkins, Samantha.dinkins@geosyntec.com
	Daryl Johnson, Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information

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

REGULATORY AGENCY

NPDES GROUND WATER UST RCRA OTHER

Site Location STATE: IL

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

ITEM #	SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GSQL	WT	G	1/19/24	1252		4	X		X																	
2	GSQS	WT	G	1/19/24	1155		5	X		X																	
3	GSIS	WT	G	1/19/24	1200		5	X		X																	
4	GS2L	WT	G	1/19/24	1240		5	X		X																	
5	GS4S	WT	G	1/19/24	1303		5	X		X																	
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

Requested Analysis Filtered (Y/N)

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

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

Confidential

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HA03433

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 10

Section A Required Client Information

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

Section B Required Project Information

Report To	Brian Voelker
Copy To	Sam Cavers samantha.cavers@vistracorp.com; Daryl Johnson Robert.Johnson@vistracorp.com
Purchase Order No.	
Project Name	
Project Number	2285

Section C Invoice Information

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N: Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D
1	EQUIPMENT BLANK #3	WT	G	1/24/24	1456		4	2		2																	
2	~~GG05~~ ROLL 1/24/24	WT	G	1/24/24	1129	5	5	2		3																	
3	GS03	WT	G	1/24/24	1148	4	2			2																	
4	GS03	WT	G	1/24/24	1307	4	2			2																	
5	GS93	WT	G	1/24/24	1404	4	2			2																	
6	CR14D	WT	G	1/24/24	1435	11	2	2	6	3																	
7	CR67D	WT	G	1/24/24	1254		11	2	6	3																	
8	CM04S	WT	G	1/24/24	1210		11	2	6	3																	
9	-GG3S	WT	G	1/24/24	1318		5	2		3																	
10	~~GG05~~ GG15 1/24/24	WT	G	1/24/24	1143		5	2		3																	
11	EQUIPMENT BLANK #4			1/24/24	1505		11	2	6	3																	
12																											
13																											
14																											
15																											
16																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0	[signature]	1/24/24	1615							
				[signature]	1/24/24	1615	2.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan Ross

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 1/24/24

HA0372e

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: of

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BAR2	WT	G	1/25/24	1439		4	X		X																		
2	BA03				1325		4	X		X																		
3	BAQ3L				1219		4	X		X																		
4	GbQL			1/24/24 2da	~~1532~~ 1332		5	X		X																		
5	Gb0S				1221		5	X		X																		
6	Gb2L			1/25/24 1da	~~1407~~ 1515		5	X		X																		
7	Gb4S				440		5	X		X																		
8	Gb9S				1120		4	X		X																		
9	Gb7S				1252		4	X		X																		
10	OR030				451		11	X	X	X																		
11	DM2				340		11	X	X	X																		
12	DM220				140		11	X	X	X																		
13	DM230				236		11	X	X	X																		
14	EB/5				1515		11	X	X	X																		
15	EB/6				1530		5	X		X																		
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-24Q1 Rev 0		01/25/24	1633		1/25/24	1633

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: AM, AP, JR, AW, JB

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/25/24

HA03941

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page ____ of ____

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

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: 12850 Diana Office Rd	Copy To: Sam Davies samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton IL 61520	Daryl Johnson Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:

REGULATORY AGENCY

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

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No / Lab I.D.
1	BA01	WT	G	1/26/24	1222		4	X		X																			
2	BA01 DUP	WT	G	1/26/24	1222		4	X		X																			
3	BA04	WT	G	1/26/24	1338		4	X		X																			
4	BA06	WT	G	1/26/24	1453		4	X		X																			
5	G125	WT	G	1/26/24	1247		3	X		X																			
6	G155	WT	G	1/26/24	1150		3	X		X																			
7	G532	WT	G	1/26/24	1140		4	X		X																			
8	G535	WT	G	1/26/24	1240		4	X		X																			
9	G575	WT	G	1/26/24	1424		5	X		X																			
10	L103	WT	G	1/26/24	1050		2	X		X																			
11	OM07	WT	G	1/26/24	1354		11	X	X	X																			
12	OR11	WT	G	1/26/24	1210		11	X	X	X																			
13	OR11 DUP	WT	G	1/26/24	1210		11	X	X	X																			
14	OR20	WT	G	1/26/24	1300		11	X	X	X																			
15	P37L	WT	G	1/26/24	1403		2	X		X																			
16	Equipment Blank 1	WT	G	1/26/24	1430		11	X	X	X																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q1 Rev 0		1/26/24	1604				
					1/26/24	1604	5.8 / Y / N / Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Pemberton
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/26/24

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GW25	WT	G	1/29/24	1433		4	X		X																	RADS
2	GW5L	WT	G	1/29/24	1117		4	X		X																	HA04059
3	GW7L	WT	G	1/29/24	1305		4	X		X																	1026
4	OW12	WT	G	1/29/24	1300		11	X	X	X																	
5	OW16	WT	G	1/29/24	1150		11	X	X	X																	
6	~~OW19~~ OW13S	WT	G	1/29/24	1500		11	X	X	X																	
7	OW19	WT	G	1/29/24	1400		11	X	X	X																	
8	EB 8	WT	G	1/29/24	1515		11	X	X	X																	
9																											
10																											
11																											
12																											
13																											
14																											
15																											
16																											

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Lambertson

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

COURIER

HA042494

~~HA042777~~

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 1 of 10

Section A Required Client Information

Company: ~~Vistra Corp (Duck Creek)~~

Address: 17751 North Cilco Rd
Canton, IL 61520

Email To: ~~Daryl.Voelker@Vistracorp.com~~

Phone: (217) 753-8911 Fax:

Requested Due Date/TAT: 10 day

Section B Required Project Information

Report To: Brian Voelker

Copy To: Sam Davies samantha.davies@vistracorp.com
Daryl Johnson Robert.Johnson@vistracorp.com

Purchase Order No:

Project Name:

Project Number: 2285

Section C Invoice Information

Attention: Brian Voelker

Company Name: Vistra Corp

Address: see Section A

Quote Reference:

Project Manager:

Profile #:

REGULATORY AGENCY

GROUND WATER DRINKING WATER

NPDES RCRA OTHER

Site Location STATE: IL

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GSIL	WT	G	1/30/24	1225		4	X		X																		
2	GSIL Dup	WT	G	1/30/24	1225		4	X		X																		
3	~~GSUL~~	WT	G	1/30/24	1427		5	X		X																		
4	~~OM-24D~~	WT	G	1/30/24	1405		11	X	X	X																		
5	~~OM-24D~~ Dup	WT	G	1/30/24	1405		11	X	X	X																		
6	~~OM-25S~~	WT	G	1/30/24	1506		11	X	X	X																		
7	~~ORO2~~	WT	G	1/30/24	1531		11	X	X	X																		
8	~~OM-23D~~	WT	G	1/30/24	1136		11	X	X	X																		
9	~~EB-4~~	WT	G	1/30/24	1555		11	X	X	X																		
10	~~EB-10~~	WT	G	1/30/24	1555		12	X	X	X																		
11																												
12																												
13																												
14																												
15																												
16																												

Requested Analysis Filtered (Y/N)

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

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

Confidential

HA04485

HA04483 SAB

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

APPENDIX B:
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

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

REGULATORY AGENCY

NPDES: GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE (DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GS6L	WT	G	1/31/24	1430		4	X		X																		
2	GS7L	WT	G	1/31/24	1338		4	X		X																		
3	GS8L	WT	G	1/31/24	1248		4	X		X																		
4	GS9L	WT	G	1/31/24	1200		4	X		X																		
5	GS9L DUP	WT	G	1/31/24	1200		4	X		X																		
6	GB5L	WT	G	1/31/24	1500		4	X		X																		
7	P60	WT	G	1/31/24	1050		4	X		X																		
8	EB 11	WT	G	1/31/24	1515		6	X		X																		
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q1 Rev 0		1/31/24	1624		1/31/24	1624	
							1.5

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Kimberlin

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/31/24

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

HB000520 RADs

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 1 of 10

Section A Required Client Information

Company: Vistra Corp Duck Creek
Address: 17751 North Cilco Rd
Canton IL 61520
Email To:
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:
Site Location STATE: IL

REGULATORY AGENCY: GROUND WATER

Section D Required Client Information

Valid Matrix Codes: MATRIX CODE — DRINKING WATER; WATER; WASTE WATER; PRODUCT; SOIL/SOLID; OIL; WIPE; AIR; OTHER; TISSUE

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No / Lab I.D.
1	BAD2L	WT	G	2/5/24	1440		4	X		X																		
2	BA05	WT	G	2/5/24	1329		4	X		X																		
3	DM-7	WT	G	2/5/24	1127		11	X	X	X																		
4	PO5L	WT	G	2/5/24	1420		1			X																		
5	EB 13	WT	G	2/5/24	1500		12	X	X	X																		
6																												
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Seals Intact (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		2/5/24	1526		2/5/24	1626	2.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Ancarsa

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 02/5/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HB00823 DS
- RADS ONLY -

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

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

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
								Requested Analysis Filtered (Y/N)																							
1	OMOI	WT	G	2/6/24	1230		11	X	X	X																				
2	OROGA	WT	G	2/6/24	1153		11	X	X	X																				
3	POSL	WT	G	2/6/24	1326		1	X																						
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		2/6/24	1701							
					2/6/24	1701	6.9	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: AP AW
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 02/06/24

cont. WDR

HDO1644

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information

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

Section B Required Project Information

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G512	WT	G	2/8/24	1110		1																						
2	G642	WT	G	2/8/24	1214		1																						
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0	Joseph R Reed	2/8/24	1843		2/8/24	1842	9.3	Y	Y	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:	Joe Reed					
SIGNATURE of SAMPLER:	Joseph R Reed	DATE Signed (MM/DD/YY): 2/8/24				

1 x 2.5L HNO3

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

June 12, 2024

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

Dear Daryl Johnson:

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

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

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

Sincerely,

Diane Billings
Project Manager

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

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HD02822

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

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

Work Order HD03060

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

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

Work Order HD03379

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

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

Work Order HD03616

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

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

Work Order HD04439

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

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

ANALYTICAL RESULTS

Sample: HD02822-05
Name: OM16
Matrix: Ground Water - Grab

Sampled: 04/15/24 12:17
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	6.9	mg/L		04/19/24 19:34	1	1.0	04/19/24 19:34	JSM	EPA 300.0 REV 2.1
Sulfate	2200	mg/L		04/19/24 19:50	250	250	04/19/24 19:50	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.44	Feet		04/15/24 12:17	1		04/15/24 12:17	FIELD	Field*
Dissolved oxygen, Field	0.35	mg/L		04/15/24 12:17	1		04/15/24 12:17	FIELD	Field*
Oxidation Reduction Potential	322	mV		04/15/24 12:17	1	-500	04/15/24 12:17	FIELD	Field*
pH, Field Measured	6.36	pH Units		04/15/24 12:17	1		04/15/24 12:17	FIELD	Field*
Specific Conductance, Field Measured	4105	umhos/cm		04/15/24 12:17	1		04/15/24 12:17	FIELD	Field*
Temperature, Field Measured	17.9	°C		04/15/24 12:17	1		04/15/24 12:17	FIELD	Field*
Temperature, Field Measured	64.2	°F		04/15/24 12:17	1		04/15/24 12:17	FIELD	Field*
Turbidity, Field Measured	71.8	NTU		04/15/24 12:17	1	0.00	04/15/24 12:17	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	740	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		04/25/24 15:16	1	0.250	04/25/24 15:16	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3600	mg/L		04/19/24 13:59	1	17	04/19/24 15:52	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 17:31	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Barium	14	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Boron	50	ug/L		04/18/24 07:53	5	10	04/19/24 17:31	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Calcium	580	mg/L		04/18/24 07:53	10	0.40	04/23/24 09:45	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/18/24 07:53	5	4.0	04/19/24 17:31	TJJ	EPA 6020A
Cobalt	2.2	ug/L		04/18/24 07:53	5	2.0	04/19/24 17:31	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Magnesium	370	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:31	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 17:31	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD02822-05
Name: OM16
Matrix: Ground Water - Grab

Sampled: 04/15/24 12:17
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.3	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:31	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Sodium	25	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:31	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:31	TJJ	EPA 6020A
Lithium	0.036	mg/L		04/18/24 07:53	1	0.020	04/18/24 15:59	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD02822-06
Name: OM17
Matrix: Ground Water - Grab

Sampled: 04/15/24 13:20
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	< 1.0	mg/L		04/19/24 22:46	1	1.0	04/19/24 22:46	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/22/24 17:58	1	0.250	04/22/24 17:58	JSM	EPA 300.0 REV 2.1
Sulfate	67	mg/L		04/19/24 23:34	50	50	04/19/24 23:34	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.09	Feet		04/15/24 13:20	1		04/15/24 13:20	FIELD	Field*
Dissolved oxygen, Field	0.97	mg/L		04/15/24 13:20	1		04/15/24 13:20	FIELD	Field*
Oxidation Reduction Potential	113	mV		04/15/24 13:20	1	-500	04/15/24 13:20	FIELD	Field*
pH, Field Measured	6.62	pH Units		04/15/24 13:20	1		04/15/24 13:20	FIELD	Field*
Specific Conductance, Field Measured	623.0	umhos/cm		04/15/24 13:20	1		04/15/24 13:20	FIELD	Field*
Temperature, Field Measured	17.4	°C		04/15/24 13:20	1		04/15/24 13:20	FIELD	Field*
Temperature, Field Measured	63.4	°F		04/15/24 13:20	1		04/15/24 13:20	FIELD	Field*
Turbidity, Field Measured	29.1	NTU		04/15/24 13:20	1	0.00	04/15/24 13:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	310	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	400	mg/L		04/19/24 13:59	1	17	04/19/24 15:52	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 17:47	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Barium	70	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Boron	140	ug/L		04/18/24 07:53	5	10	04/23/24 09:49	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Calcium	110	mg/L		04/18/24 07:53	5	0.20	04/19/24 17:47	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/18/24 07:53	5	4.0	04/19/24 17:47	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/18/24 07:53	5	2.0	04/19/24 17:47	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Magnesium	33	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:47	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 17:47	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD02822-06
Name: OM17
Matrix: Ground Water - Grab

Sampled: 04/15/24 13:20
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	5.5	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:47	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Sodium	1.7	mg/L		04/18/24 07:53	5	0.10	04/23/24 09:49	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:47	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/18/24 07:53	1	0.020	04/18/24 16:01	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD02822-07
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 04/15/24 10:53
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	420	mg/L		04/20/24 00:06	100	100	04/20/24 00:06	JSM	EPA 300.0 REV 2.1
Sulfate	930	mg/L		04/20/24 00:06	100	100	04/20/24 00:06	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	2.61	Feet		04/15/24 10:53	1		04/15/24 10:53	FIELD	Field*
Dissolved oxygen, Field	0.51	mg/L		04/15/24 10:53	1		04/15/24 10:53	FIELD	Field*
Oxidation Reduction Potential	-17.8	mV		04/15/24 10:53	1	-500	04/15/24 10:53	FIELD	Field*
pH, Field Measured	6.62	pH Units		04/15/24 10:53	1		04/15/24 10:53	FIELD	Field*
Specific Conductance, Field Measured	3123	umhos/cm		04/15/24 10:53	1		04/15/24 10:53	FIELD	Field*
Temperature, Field Measured	14.9	°C		04/15/24 10:53	1		04/15/24 10:53	FIELD	Field*
Temperature, Field Measured	58.8	°F		04/15/24 10:53	1		04/15/24 10:53	FIELD	Field*
Turbidity, Field Measured	61.4	NTU		04/15/24 10:53	1	0.00	04/15/24 10:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		04/26/24 14:20	1	0.250	04/26/24 14:20	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2200	mg/L		04/19/24 13:59	1	17	04/19/24 15:52	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 17:51	TJJ	EPA 6020A
Arsenic	4.7	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Barium	14	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Boron	20000	ug/L		04/18/24 07:53	100	200	04/23/24 09:53	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Calcium	400	mg/L		04/18/24 07:53	5	0.20	04/19/24 17:51	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/18/24 07:53	5	4.0	04/19/24 17:51	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/18/24 07:53	5	2.0	04/19/24 17:51	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Magnesium	140	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:51	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 17:51	TJJ	EPA 6020A
Molybdenum	4.9	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD02822-07
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 04/15/24 10:53
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.1	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:51	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Sodium	110	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:51	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:51	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/18/24 07:53	1	0.020	04/18/24 16:02	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD02822-08
Name: OR11
Matrix: Ground Water - Grab

Sampled: 04/15/24 14:44
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	78	mg/L		04/20/24 00:38	25	25	04/20/24 00:38	JSM	EPA 300.0 REV 2.1
Fluoride	0.262	mg/L		04/22/24 18:32	1	0.250	04/22/24 18:32	JSM	EPA 300.0 REV 2.1
Sulfate	160	mg/L		04/20/24 00:38	25	25	04/20/24 00:38	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	29.87	Feet		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Dissolved oxygen, Field	0.65	mg/L		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Oxidation Reduction Potential	-50.2	mV		04/15/24 14:44	1	-500	04/15/24 14:44	FIELD	Field*
pH, Field Measured	6.78	pH Units		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Specific Conductance, Field Measured	1173	umhos/cm		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Temperature, Field Measured	17.9	°C		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Temperature, Field Measured	64.1	°F		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Turbidity, Field Measured	9.96	NTU		04/15/24 14:44	1	0.00	04/15/24 14:44	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	390	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	650	mg/L		04/19/24 13:59	1	17	04/19/24 15:52	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 17:55	TJJ	EPA 6020A
Arsenic	2.1	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Barium	37	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Boron	8000	ug/L		04/18/24 07:53	20	40	04/23/24 09:57	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Calcium	140	mg/L		04/18/24 07:53	5	0.20	04/19/24 17:55	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/18/24 07:53	5	4.0	04/19/24 17:55	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/18/24 07:53	5	2.0	04/19/24 17:55	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Magnesium	61	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:55	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 17:55	TJJ	EPA 6020A
Molybdenum	7.2	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD02822-08
Name: OR11
Matrix: Ground Water - Grab

Sampled: 04/15/24 14:44
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	3.7	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:55	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Sodium	28	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:55	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:55	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/18/24 07:53	1	0.020	04/18/24 16:03	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD02822-09
Name: OR11 Dup
Matrix: Ground Water - Grab

Sampled: 04/15/24 14:44
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	80	mg/L		04/20/24 01:11	25	25	04/20/24 01:11	JSM	EPA 300.0 REV 2.1
Fluoride	0.257	mg/L		04/22/24 18:49	1	0.250	04/22/24 18:49	JSM	EPA 300.0 REV 2.1
Sulfate	160	mg/L		04/20/24 01:11	25	25	04/20/24 01:11	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	29.87	Feet		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Dissolved oxygen, Field	0.65	mg/L		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Oxidation Reduction Potential	-50.2	mV		04/15/24 14:44	1	-500	04/15/24 14:44	FIELD	Field*
pH, Field Measured	6.78	pH Units		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Specific Conductance, Field Measured	1173	umhos/cm		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Temperature, Field Measured	64.1	°F		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Temperature, Field Measured	17.9	°C		04/15/24 14:44	1		04/15/24 14:44	FIELD	Field*
Turbidity, Field Measured	9.96	NTU		04/15/24 14:44	1	0.00	04/15/24 14:44	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	380	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	700	mg/L		04/19/24 13:59	1	17	04/19/24 15:52	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 17:59	TJJ	EPA 6020A
Arsenic	2.2	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Barium	37	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Boron	8100	ug/L		04/18/24 07:53	20	40	04/23/24 10:01	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Calcium	150	mg/L		04/18/24 07:53	5	0.20	04/19/24 17:59	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/18/24 07:53	5	4.0	04/19/24 17:59	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/18/24 07:53	5	2.0	04/19/24 17:59	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Magnesium	62	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:59	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 17:59	TJJ	EPA 6020A
Molybdenum	13	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD02822-09
Name: OR11 Dup
Matrix: Ground Water - Grab

Sampled: 04/15/24 14:44
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	3.7	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:59	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Sodium	28	mg/L		04/18/24 07:53	5	0.10	04/19/24 17:59	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 17:59	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/18/24 07:53	1	0.020	04/18/24 16:04	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD02822-10
Name: OR20
Matrix: Ground Water - Grab

Sampled: 04/15/24 13:21
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	370	mg/L		04/20/24 01:43	50	50	04/20/24 01:43	JSM	EPA 300.0 REV 2.1
Fluoride	0.457	mg/L		04/22/24 19:06	1	0.250	04/22/24 19:06	JSM	EPA 300.0 REV 2.1
Sulfate	430	mg/L		04/20/24 01:43	50	50	04/20/24 01:43	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.52	Feet		04/15/24 13:21	1		04/15/24 13:21	FIELD	Field*
Dissolved oxygen, Field	0.43	mg/L		04/15/24 13:21	1		04/15/24 13:21	FIELD	Field*
Oxidation Reduction Potential	-47.3	mV		04/15/24 13:21	1	-500	04/15/24 13:21	FIELD	Field*
pH, Field Measured	6.74	pH Units		04/15/24 13:21	1		04/15/24 13:21	FIELD	Field*
Specific Conductance, Field Measured	2360	umhos/cm		04/15/24 13:21	1		04/15/24 13:21	FIELD	Field*
Temperature, Field Measured	67.3	°F		04/15/24 13:21	1		04/15/24 13:21	FIELD	Field*
Temperature, Field Measured	19.6	°C		04/15/24 13:21	1		04/15/24 13:21	FIELD	Field*
Turbidity, Field Measured	8.86	NTU		04/15/24 13:21	1	0.00	04/15/24 13:21	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/16/24 13:38	1	10	04/16/24 13:38	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1600	mg/L		04/19/24 13:59	1	17	04/19/24 15:52	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 18:02	TJJ	EPA 6020A
Arsenic	3.1	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Barium	21	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Boron	33000	ug/L		04/18/24 07:53	100	200	04/23/24 10:05	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Calcium	250	mg/L		04/18/24 07:53	5	0.20	04/19/24 18:02	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/18/24 07:53	5	4.0	04/19/24 18:02	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/18/24 07:53	5	2.0	04/19/24 18:02	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Magnesium	99	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:02	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 18:02	TJJ	EPA 6020A
Molybdenum	41	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD02822-10
Name: OR20
Matrix: Ground Water - Grab

Sampled: 04/15/24 13:21
Received: 04/15/24 16:52
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	8.3	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:02	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Sodium	180	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:02	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:02	TJJ	EPA 6020A
Lithium	0.046	mg/L		04/18/24 07:53	1	0.020	04/18/24 16:05	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-04
Name: BA06
Matrix: Ground Water - Grab

Sampled: 04/16/24 14:32
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	550	mg/L		04/26/24 19:35	100	100	04/26/24 19:35	JSM	EPA 300.0 REV 2.1
Sulfate	380	mg/L		04/26/24 19:35	100	100	04/26/24 19:35	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.6	Feet		04/16/24 14:32	1		04/16/24 14:32	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		04/16/24 14:32	1		04/16/24 14:32	FIELD	Field*
Oxidation Reduction Potential	11.0	mV		04/16/24 14:32	1	-500	04/16/24 14:32	FIELD	Field*
pH, Field Measured	6.65	pH Units		04/16/24 14:32	1		04/16/24 14:32	FIELD	Field*
Specific Conductance, Field Measured	3310	umhos/cm		04/16/24 14:32	1		04/16/24 14:32	FIELD	Field*
Temperature, Field Measured	62.1	°F		04/16/24 14:32	1		04/16/24 14:32	FIELD	Field*
Temperature, Field Measured	16.7	°C		04/16/24 14:32	1		04/16/24 14:32	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		04/16/24 14:32	1	0.00	04/16/24 14:32	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	440	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	0.308	mg/L		05/01/24 13:09	1	0.250	05/01/24 13:09	JMD2	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1800	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/17/24 07:50	5	3.0	04/18/24 16:50	TJJ	EPA 6020A
Arsenic	3.7	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A
Barium	99	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/24/24 11:10	TJJ	EPA 6020A
Boron	13000	ug/L		04/17/24 07:50	10	20	04/19/24 14:39	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A
Calcium	320	mg/L		04/17/24 07:50	5	0.20	04/18/24 16:50	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/17/24 07:50	5	4.0	04/18/24 16:50	TJJ	EPA 6020A
Cobalt	7.3	ug/L		04/17/24 07:50	5	2.0	04/18/24 16:50	TJJ	EPA 6020A
Lead	1.4	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A
Magnesium	200	mg/L		04/17/24 07:50	5	0.10	04/18/24 16:50	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/17/24 07:50	5	0.20	04/18/24 16:50	TJJ	EPA 6020A
Molybdenum	1.5	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-04
Name: BA06
Matrix: Ground Water - Grab

Sampled: 04/16/24 14:32
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.68	mg/L		04/17/24 07:50	5	0.10	04/18/24 16:50	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A
Sodium	17	mg/L		04/17/24 07:50	10	0.20	04/19/24 14:39	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 16:50	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/17/24 07:50	1	0.020	04/18/24 15:37	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-13
Name: OR02
Matrix: Ground Water - Grab

Sampled: 04/16/24 15:00
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	19	mg/L		04/26/24 20:09	5	5.0	04/26/24 20:09	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/26/24 19:52	1	0.250	04/26/24 19:52	JSM	EPA 300.0 REV 2.1
Sulfate	27	mg/L		04/26/24 20:09	5	5.0	04/26/24 20:09	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	4.57	Feet		04/16/24 15:00	1		04/16/24 15:00	FIELD	Field*
Dissolved oxygen, Field	0.33	mg/L		04/16/24 15:00	1		04/16/24 15:00	FIELD	Field*
Oxidation Reduction Potential	-6.20	mV		04/16/24 15:00	1	-500	04/16/24 15:00	FIELD	Field*
pH, Field Measured	6.57	pH Units		04/16/24 15:00	1		04/16/24 15:00	FIELD	Field*
Specific Conductance, Field Measured	1845	umhos/cm		04/16/24 15:00	1		04/16/24 15:00	FIELD	Field*
Temperature, Field Measured	63.2	°F		04/16/24 15:00	1		04/16/24 15:00	FIELD	Field*
Temperature, Field Measured	17.4	°C		04/16/24 15:00	1		04/16/24 15:00	FIELD	Field*
Turbidity, Field Measured	139	NTU		04/16/24 15:00	1	0.00	04/16/24 15:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	540	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/25/24 07:03	5	3.0	04/29/24 14:25	TJJ	EPA 6020A
Arsenic	5.9	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Barium	43	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Boron	3600	ug/L		04/25/24 07:03	5	10	04/29/24 14:25	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Calcium	220	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:25	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/25/24 07:03	5	4.0	04/29/24 14:25	TJJ	EPA 6020A
Cobalt	4.7	ug/L		04/25/24 07:03	5	2.0	04/29/24 14:25	TJJ	EPA 6020A
Lead	1.8	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Magnesium	93	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:25	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/25/24 07:03	5	0.20	04/29/24 14:25	TJJ	EPA 6020A
Molybdenum	2.5	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-13
Name: OR02
Matrix: Ground Water - Grab

Sampled: 04/16/24 15:00
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	2.1	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:25	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Sodium	100	mg/L		04/25/24 07:03	5	0.10	04/30/24 15:56	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:25	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/25/24 07:03	1	0.020	04/30/24 15:03	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-14
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 04/16/24 14:12
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	14	mg/L		04/26/24 20:43	5	5.0	04/26/24 20:43	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/26/24 20:26	1	0.250	04/26/24 20:26	JSM	EPA 300.0 REV 2.1
Sulfate	140	mg/L		04/26/24 21:00	25	25	04/26/24 21:00	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.17	Feet		04/16/24 14:12	1		04/16/24 14:12	FIELD	Field*
Dissolved oxygen, Field	0.51	mg/L		04/16/24 14:12	1		04/16/24 14:12	FIELD	Field*
Oxidation Reduction Potential	-15.9	mV		04/16/24 14:12	1	-500	04/16/24 14:12	FIELD	Field*
pH, Field Measured	6.58	pH Units		04/16/24 14:12	1		04/16/24 14:12	FIELD	Field*
Specific Conductance, Field Measured	1123	umhos/cm		04/16/24 14:12	1		04/16/24 14:12	FIELD	Field*
Temperature, Field Measured	67.2	°F		04/16/24 14:12	1		04/16/24 14:12	FIELD	Field*
Temperature, Field Measured	19.5	°C		04/16/24 14:12	1		04/16/24 14:12	FIELD	Field*
Turbidity, Field Measured	6.12	NTU		04/16/24 14:12	1	0.00	04/16/24 14:12	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	720	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/17/24 07:50	5	3.0	04/18/24 17:25	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A
Barium	43	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/19/24 15:24	TJJ	EPA 6020A
Boron	89	ug/L		04/17/24 07:50	5	10	04/19/24 15:24	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A
Calcium	150	mg/L		04/17/24 07:50	5	0.20	04/18/24 17:25	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/17/24 07:50	5	4.0	04/18/24 17:25	TJJ	EPA 6020A
Cobalt	2.3	ug/L		04/17/24 07:50	5	2.0	04/18/24 17:25	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A
Magnesium	71	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:25	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/17/24 07:50	5	0.20	04/18/24 17:25	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-14
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 04/16/24 14:12
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.51	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:25	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A
Sodium	14	mg/L		04/17/24 07:50	5	0.10	04/19/24 15:24	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:25	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/17/24 07:50	1	0.020	04/18/24 15:39	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-15
Name: OM12
Matrix: Ground Water - Grab

Sampled: 04/16/24 11:20
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.3	mg/L		04/26/24 21:18	1	1.0	04/26/24 21:18	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/26/24 21:18	1	0.250	04/26/24 21:18	JSM	EPA 300.0 REV 2.1
Sulfate	460	mg/L		04/26/24 22:26	100	100	04/26/24 22:26	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.2	Feet		04/16/24 11:20	1		04/16/24 11:20	FIELD	Field*
Dissolved oxygen, Field	0.40	mg/L		04/16/24 11:20	1		04/16/24 11:20	FIELD	Field*
Oxidation Reduction Potential	-60.3	mV		04/16/24 11:20	1	-500	04/16/24 11:20	FIELD	Field*
pH, Field Measured	6.44	pH Units		04/16/24 11:20	1		04/16/24 11:20	FIELD	Field*
Specific Conductance, Field Measured	2011	umhos/cm		04/16/24 11:20	1		04/16/24 11:20	FIELD	Field*
Temperature, Field Measured	18.3	°C		04/16/24 11:20	1		04/16/24 11:20	FIELD	Field*
Temperature, Field Measured	64.9	°F		04/16/24 11:20	1		04/16/24 11:20	FIELD	Field*
Turbidity, Field Measured	13.4	NTU		04/16/24 11:20	1	0.00	04/16/24 11:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	810	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1400	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/25/24 07:03	5	3.0	04/29/24 14:29	TJJ	EPA 6020A
Arsenic	26	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Barium	270	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Boron	80	ug/L		04/25/24 07:03	5	10	04/29/24 14:29	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Calcium	300	mg/L		04/25/24 07:03	5	0.20	04/29/24 14:29	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/25/24 07:03	5	4.0	04/29/24 14:29	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/25/24 07:03	5	2.0	04/29/24 14:29	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Magnesium	120	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:29	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/25/24 07:03	5	0.20	04/29/24 14:29	TJJ	EPA 6020A
Molybdenum	2.9	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-15
Name: OM12
Matrix: Ground Water - Grab

Sampled: 04/16/24 11:20
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.2	mg/L		04/25/24 07:03	5	0.10	04/29/24 14:29	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Sodium	15	mg/L		04/25/24 07:03	5	0.10	04/30/24 16:00	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/25/24 07:03	5	1.0	04/29/24 14:29	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/25/24 07:03	1	0.020	04/30/24 15:04	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-16
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 04/16/24 12:05
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	520	mg/L		04/26/24 23:00	100	100	04/26/24 23:00	JSM	EPA 300.0 REV 2.1
Sulfate	640	mg/L		04/26/24 23:00	100	100	04/26/24 23:00	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.46	Feet		04/16/24 12:05	1		04/16/24 12:05	FIELD	Field*
Dissolved oxygen, Field	0.58	mg/L		04/16/24 12:05	1		04/16/24 12:05	FIELD	Field*
Oxidation Reduction Potential	-36.2	mV		04/16/24 12:05	1	-500	04/16/24 12:05	FIELD	Field*
pH, Field Measured	6.61	pH Units		04/16/24 12:05	1		04/16/24 12:05	FIELD	Field*
Specific Conductance, Field Measured	3178	umhos/cm		04/16/24 12:05	1		04/16/24 12:05	FIELD	Field*
Temperature, Field Measured	17.8	°C		04/16/24 12:05	1		04/16/24 12:05	FIELD	Field*
Temperature, Field Measured	64.0	°F		04/16/24 12:05	1		04/16/24 12:05	FIELD	Field*
Turbidity, Field Measured	83.4	NTU		04/16/24 12:05	1	0.00	04/16/24 12:05	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/01/24 13:10	1	0.250	05/01/24 13:10	JMD2	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2300	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/17/24 07:50	5	3.0	04/18/24 17:32	TJJ	EPA 6020A
Arsenic	25	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A
Barium	140	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/23/24 17:54	TJJ	EPA 6020A
Boron	48000	ug/L		04/17/24 07:50	100	200	04/19/24 15:32	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A
Calcium	500	mg/L		04/17/24 07:50	5	0.20	04/18/24 17:32	TJJ	EPA 6020A
Chromium	28	ug/L		04/17/24 07:50	5	4.0	04/18/24 17:32	TJJ	EPA 6020A
Cobalt	10	ug/L		04/17/24 07:50	5	2.0	04/18/24 17:32	TJJ	EPA 6020A
Lead	17	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A
Magnesium	150	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:32	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/17/24 07:50	5	0.20	04/18/24 17:32	TJJ	EPA 6020A
Molybdenum	58	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-16
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 04/16/24 12:05
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.3	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:32	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A
Sodium	80	mg/L		04/17/24 07:50	100	2.0	04/19/24 15:32	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:32	TJJ	EPA 6020A
Lithium	0.021	mg/L		04/17/24 07:50	1	0.020	04/18/24 15:42	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-17
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 04/16/24 12:58
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	320	mg/L		04/26/24 23:17	100	100	04/26/24 23:17	JSM	EPA 300.0 REV 2.1
Sulfate	810	mg/L		04/26/24 23:17	100	100	04/26/24 23:17	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.65	Feet		04/16/24 12:58	1		04/16/24 12:58	FIELD	Field*
Dissolved oxygen, Field	0.43	mg/L		04/16/24 12:58	1		04/16/24 12:58	FIELD	Field*
Oxidation Reduction Potential	-1.50	mV		04/16/24 12:58	1	-500	04/16/24 12:58	FIELD	Field*
pH, Field Measured	6.53	pH Units		04/16/24 12:58	1		04/16/24 12:58	FIELD	Field*
Specific Conductance, Field Measured	2817	umhos/cm		04/16/24 12:58	1		04/16/24 12:58	FIELD	Field*
Temperature, Field Measured	65.5	°F		04/16/24 12:58	1		04/16/24 12:58	FIELD	Field*
Temperature, Field Measured	18.6	°C		04/16/24 12:58	1		04/16/24 12:58	FIELD	Field*
Turbidity, Field Measured	8.05	NTU		04/16/24 12:58	1	0.00	04/16/24 12:58	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	450	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	0.262	mg/L		05/01/24 13:12	1	0.250	05/01/24 13:12	JMD2	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2100	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/17/24 07:50	5	3.0	04/18/24 17:36	TJJ	EPA 6020A
Arsenic	1.2	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A
Barium	23	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/23/24 17:58	TJJ	EPA 6020A
Boron	21000	ug/L		04/17/24 07:50	100	200	04/19/24 15:36	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A
Calcium	450	mg/L		04/17/24 07:50	5	0.20	04/18/24 17:36	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/17/24 07:50	5	4.0	04/18/24 17:36	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/17/24 07:50	5	2.0	04/18/24 17:36	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A
Magnesium	120	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:36	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/17/24 07:50	5	0.20	04/18/24 17:36	TJJ	EPA 6020A
Molybdenum	5.4	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-17
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 04/16/24 12:58
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.1	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:36	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A
Sodium	56	mg/L		04/17/24 07:50	100	2.0	04/19/24 15:36	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:36	TJJ	EPA 6020A
Lithium	0.021	mg/L		04/17/24 07:50	1	0.020	04/18/24 15:43	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03060-18
Name: OR19
Matrix: Ground Water - Grab

Sampled: 04/16/24 10:22
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	150	mg/L		04/26/24 23:51	25	25	04/26/24 23:51	JSM	EPA 300.0 REV 2.1
Fluoride	0.310	mg/L		04/26/24 23:34	1	0.250	04/26/24 23:34	JSM	EPA 300.0 REV 2.1
Sulfate	780	mg/L		04/27/24 00:08	250	250	04/27/24 00:08	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.73	Feet		04/16/24 10:22	1		04/16/24 10:22	FIELD	Field*
Dissolved oxygen, Field	0.52	mg/L		04/16/24 10:22	1		04/16/24 10:22	FIELD	Field*
Oxidation Reduction Potential	-22.1	mV		04/16/24 10:22	1	-500	04/16/24 10:22	FIELD	Field*
pH, Field Measured	6.57	pH Units		04/16/24 10:22	1		04/16/24 10:22	FIELD	Field*
Specific Conductance, Field Measured	2605	umhos/cm		04/16/24 10:22	1		04/16/24 10:22	FIELD	Field*
Temperature, Field Measured	65.2	°F		04/16/24 10:22	1		04/16/24 10:22	FIELD	Field*
Temperature, Field Measured	18.4	°C		04/16/24 10:22	1		04/16/24 10:22	FIELD	Field*
Turbidity, Field Measured	9.50	NTU		04/16/24 10:22	1	0.00	04/16/24 10:22	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	640	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2000	mg/L		04/19/24 14:01	1	17	04/19/24 14:58	TMS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/17/24 07:50	5	3.0	04/18/24 17:40	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A
Barium	13	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/24/24 11:14	TJJ	EPA 6020A
Boron	15000	ug/L		04/17/24 07:50	100	200	04/19/24 15:40	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A
Calcium	300	mg/L		04/17/24 07:50	5	0.20	04/18/24 17:40	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/17/24 07:50	5	4.0	04/18/24 17:40	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/17/24 07:50	5	2.0	04/18/24 17:40	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A
Magnesium	140	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:40	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/17/24 07:50	5	0.20	04/18/24 17:40	TJJ	EPA 6020A
Molybdenum	3.6	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03060-18
Name: OR19
Matrix: Ground Water - Grab

Sampled: 04/16/24 10:22
Received: 04/16/24 16:09
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.5	mg/L		04/17/24 07:50	5	0.10	04/18/24 17:40	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A
Sodium	160	mg/L		04/17/24 07:50	100	2.0	04/19/24 15:40	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/17/24 07:50	5	1.0	04/18/24 17:40	TJJ	EPA 6020A
Lithium	0.021	mg/L		04/17/24 07:50	1	0.020	04/18/24 15:44	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03379-10
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 04/17/24 10:35
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	840	mg/L		04/29/24 13:42	250	250	04/29/24 13:42	JSM	EPA 300.0 REV 2.1
Sulfate	770	mg/L		04/29/24 13:42	250	250	04/29/24 13:42	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.89	Feet		04/17/24 10:35	1		04/17/24 10:35	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		04/17/24 10:35	1		04/17/24 10:35	FIELD	Field*
Oxidation Reduction Potential	11.0	mV		04/17/24 10:35	1	-500	04/17/24 10:35	FIELD	Field*
pH, Field Measured	6.55	pH Units		04/17/24 10:35	1		04/17/24 10:35	FIELD	Field*
Specific Conductance, Field Measured	3932	umhos/cm		04/17/24 10:35	1		04/17/24 10:35	FIELD	Field*
Temperature, Field Measured	65.8	°F		04/17/24 10:35	1		04/17/24 10:35	FIELD	Field*
Temperature, Field Measured	18.8	°C		04/17/24 10:35	1		04/17/24 10:35	FIELD	Field*
Turbidity, Field Measured	2820	NTU		04/17/24 10:35	1	0.00	04/17/24 10:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	340	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/02/24 13:58	1	0.250	05/02/24 13:58	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3700	mg/L		04/22/24 08:48	1	17	04/22/24 10:15	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 18:45	TJJ	EPA 6020A
Arsenic	4.7	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Barium	81	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Boron	48000	ug/L		04/18/24 07:53	100	200	04/23/24 11:03	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Calcium	560	mg/L		04/18/24 07:53	100	4.0	04/23/24 11:03	TJJ	EPA 6020A
Chromium	36	ug/L		04/18/24 07:53	5	4.0	04/19/24 18:45	TJJ	EPA 6020A
Cobalt	7.1	ug/L		04/18/24 07:53	5	2.0	04/19/24 18:45	TJJ	EPA 6020A
Lead	3.4	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Magnesium	160	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:45	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 18:45	TJJ	EPA 6020A
Molybdenum	120	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03379-10
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 04/17/24 10:35
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	11	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:45	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Sodium	170	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:45	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:45	TJJ	EPA 6020A
Lithium	0.061	mg/L		04/18/24 07:53	1	0.020	04/18/24 16:09	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03379-11
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 04/17/24 11:40
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	25	mg/L		04/29/24 14:51	5	5.0	04/29/24 14:51	JSM	EPA 300.0 REV 2.1
Sulfate	370	mg/L		04/29/24 15:08	50	50	04/29/24 15:08	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	37.53	Feet		04/17/24 11:40	1		04/17/24 11:40	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		04/17/24 11:40	1		04/17/24 11:40	FIELD	Field*
Oxidation Reduction Potential	-17.1	mV		04/17/24 11:40	1	-500	04/17/24 11:40	FIELD	Field*
pH, Field Measured	6.66	pH Units		04/17/24 11:40	1		04/17/24 11:40	FIELD	Field*
Specific Conductance, Field Measured	1632	umhos/cm		04/17/24 11:40	1		04/17/24 11:40	FIELD	Field*
Temperature, Field Measured	65.7	°F		04/17/24 11:40	1		04/17/24 11:40	FIELD	Field*
Temperature, Field Measured	18.7	°C		04/17/24 11:40	1		04/17/24 11:40	FIELD	Field*
Turbidity, Field Measured	1380	NTU		04/17/24 11:40	1	0.00	04/17/24 11:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	600	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/02/24 14:01	1	0.250	05/02/24 14:01	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L		04/22/24 08:48	1	17	04/22/24 10:15	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 18:49	TJJ	EPA 6020A
Arsenic	2.3	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Barium	53	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Boron	1900	ug/L		04/18/24 07:53	5	10	04/23/24 11:07	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Calcium	170	mg/L		04/18/24 07:53	5	0.20	04/19/24 18:49	TJJ	EPA 6020A
Chromium	10	ug/L		04/18/24 07:53	5	4.0	04/19/24 18:49	TJJ	EPA 6020A
Cobalt	2.8	ug/L		04/18/24 07:53	5	2.0	04/19/24 18:49	TJJ	EPA 6020A
Lead	2.9	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Magnesium	100	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:49	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 18:49	TJJ	EPA 6020A
Molybdenum	3.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03379-11
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 04/17/24 11:40
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	6.3	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:49	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Sodium	110	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:49	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:49	TJJ	EPA 6020A
Lithium	0.041	mg/L		04/18/24 07:53	1	0.020	04/19/24 08:57	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03379-12
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 04/17/24 14:45
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	480	mg/L		05/01/24 10:11	250	250	05/01/24 10:11	JSM	EPA 300.0 REV 2.1
Sulfate	670	mg/L		05/01/24 10:11	250	250	05/01/24 10:11	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	58.12	Feet		04/17/24 14:45	1		04/17/24 14:45	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		04/17/24 14:45	1		04/17/24 14:45	FIELD	Field*
Oxidation Reduction Potential	-8.30	mV		04/17/24 14:45	1	-500	04/17/24 14:45	FIELD	Field*
pH, Field Measured	6.53	pH Units		04/17/24 14:45	1		04/17/24 14:45	FIELD	Field*
Specific Conductance, Field Measured	3354	umhos/cm		04/17/24 14:45	1		04/17/24 14:45	FIELD	Field*
Temperature, Field Measured	69.0	°F		04/17/24 14:45	1		04/17/24 14:45	FIELD	Field*
Temperature, Field Measured	20.5	°C		04/17/24 14:45	1		04/17/24 14:45	FIELD	Field*
Turbidity, Field Measured	3680	NTU		04/17/24 14:45	1	0.00	04/17/24 14:45	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/02/24 14:03	1	0.250	05/02/24 14:03	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2700	mg/L		04/22/24 08:48	1	17	04/22/24 10:15	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/18/24 07:53	5	3.0	04/19/24 18:53	TJJ	EPA 6020A
Arsenic	17	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Barium	250	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Beryllium	2.5	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Boron	28000	ug/L		04/18/24 07:53	100	200	04/23/24 11:11	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Calcium	390	mg/L		04/18/24 07:53	5	0.20	04/19/24 18:53	TJJ	EPA 6020A
Chromium	80	ug/L		04/18/24 07:53	5	4.0	04/19/24 18:53	TJJ	EPA 6020A
Cobalt	44	ug/L		04/18/24 07:53	5	2.0	04/19/24 18:53	TJJ	EPA 6020A
Lead	34	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Magnesium	230	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:53	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/18/24 07:53	5	0.20	04/19/24 18:53	TJJ	EPA 6020A
Molybdenum	5.6	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03379-12
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 04/17/24 14:45
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	17	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:53	TJJ	EPA 6020A
Selenium	1.6	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Sodium	120	mg/L		04/18/24 07:53	5	0.10	04/19/24 18:53	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/18/24 07:53	5	1.0	04/19/24 18:53	TJJ	EPA 6020A
Lithium	0.14	mg/L		04/18/24 07:53	1	0.020	04/19/24 08:58	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03379-13
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 04/17/24 13:52
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1300	mg/L		04/29/24 15:59	250	250	04/29/24 15:59	JSM	EPA 300.0 REV 2.1
Sulfate	670	mg/L		04/29/24 15:59	250	250	04/29/24 15:59	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	44.79	Feet		04/17/24 13:52	1		04/17/24 13:52	FIELD	Field*
Dissolved oxygen, Field	0.53	mg/L		04/17/24 13:52	1		04/17/24 13:52	FIELD	Field*
Oxidation Reduction Potential	-20.1	mV		04/17/24 13:52	1	-500	04/17/24 13:52	FIELD	Field*
pH, Field Measured	6.46	pH Units		04/17/24 13:52	1		04/17/24 13:52	FIELD	Field*
Specific Conductance, Field Measured	5100	umhos/cm		04/17/24 13:52	1		04/17/24 13:52	FIELD	Field*
Temperature, Field Measured	66.1	°F		04/17/24 13:52	1		04/17/24 13:52	FIELD	Field*
Temperature, Field Measured	19.0	°C		04/17/24 13:52	1		04/17/24 13:52	FIELD	Field*
Turbidity, Field Measured	3520	NTU		04/17/24 13:52	1	0.00	04/17/24 13:52	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/02/24 14:04	1	0.250	05/02/24 14:04	ANK	SM 4500F C 1997
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/22/24 09:24	5	3.0	04/22/24 17:10	TJJ	EPA 6020A
Arsenic	7.2	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:16	TJJ	EPA 6020A
Barium	250	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:10	TJJ	EPA 6020A
Beryllium	1.2	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:16	TJJ	EPA 6020A
Boron	51000	ug/L		04/22/24 09:24	100	200	04/24/24 13:49	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:10	TJJ	EPA 6020A
Calcium	610	mg/L		04/22/24 09:24	100	4.0	04/24/24 13:49	TJJ	EPA 6020A
Chromium	38	ug/L		04/22/24 09:24	5	4.0	04/22/24 17:10	TJJ	EPA 6020A
Cobalt	20	ug/L		04/22/24 09:24	5	2.0	04/22/24 17:10	TJJ	EPA 6020A
Lead	22	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:10	TJJ	EPA 6020A
Magnesium	300	mg/L		04/22/24 09:24	5	0.10	04/22/24 17:10	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/22/24 09:24	5	0.20	04/22/24 17:10	TJJ	EPA 6020A
Molybdenum	4.5	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:10	TJJ	EPA 6020A
Potassium	14	mg/L		04/22/24 09:24	5	0.10	04/22/24 17:10	TJJ	EPA 6020A
Selenium	1.3	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:10	TJJ	EPA 6020A
Sodium	160	mg/L		04/22/24 09:24	5	0.10	04/22/24 17:10	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03379-13
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 04/17/24 13:52
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Thallium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:10	TJJ	EPA 6020A
Lithium	0.085	mg/L		04/22/24 09:24	1	0.020	04/30/24 13:22	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03379-14
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 04/17/24 13:00
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	560	mg/L		04/29/24 16:16	250	250	04/29/24 16:16	JSM	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		04/29/24 16:16	250	250	04/29/24 16:16	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.08	Feet		04/17/24 13:00	1		04/17/24 13:00	FIELD	Field*
Dissolved oxygen, Field	3.6	mg/L		04/17/24 13:00	1		04/17/24 13:00	FIELD	Field*
Oxidation Reduction Potential	-23.6	mV		04/17/24 13:00	1	-500	04/17/24 13:00	FIELD	Field*
pH, Field Measured	6.44	pH Units		04/17/24 13:00	1		04/17/24 13:00	FIELD	Field*
Specific Conductance, Field Measured	5004	umhos/cm		04/17/24 13:00	1		04/17/24 13:00	FIELD	Field*
Temperature, Field Measured	21.8	°C		04/17/24 13:00	1		04/17/24 13:00	FIELD	Field*
Temperature, Field Measured	71.2	°F		04/17/24 13:00	1		04/17/24 13:00	FIELD	Field*
Turbidity, Field Measured	474	NTU		04/17/24 13:00	1	0.00	04/17/24 13:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	510	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		04/23/24 08:03	1	10	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/02/24 14:05	1	0.250	05/02/24 14:05	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3500	mg/L		04/22/24 08:48	1	17	04/22/24 10:15	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/22/24 09:24	5	3.0	04/22/24 17:15	TJJ	EPA 6020A
Arsenic	9.7	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:20	TJJ	EPA 6020A
Barium	170	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:15	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:20	TJJ	EPA 6020A
Boron	61000	ug/L		04/22/24 09:24	100	200	04/24/24 13:53	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:15	TJJ	EPA 6020A
Calcium	620	mg/L		04/22/24 09:24	100	4.0	04/24/24 13:53	TJJ	EPA 6020A
Chromium	45	ug/L		04/22/24 09:24	5	4.0	04/22/24 17:15	TJJ	EPA 6020A
Cobalt	11	ug/L		04/22/24 09:24	5	2.0	04/22/24 17:15	TJJ	EPA 6020A
Lead	19	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:15	TJJ	EPA 6020A
Magnesium	240	mg/L		04/22/24 09:24	5	0.10	04/22/24 17:15	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/22/24 09:24	5	0.20	04/22/24 17:15	TJJ	EPA 6020A
Molybdenum	8.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:15	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03379-14
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 04/17/24 13:00
Received: 04/17/24 16:43
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	13	mg/L		04/22/24 09:24	5	0.10	04/22/24 17:15	TJJ	EPA 6020A
Selenium	1.4	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:15	TJJ	EPA 6020A
Sodium	170	mg/L		04/22/24 09:24	5	0.10	04/22/24 17:15	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 17:15	TJJ	EPA 6020A
Lithium	0.087	mg/L		04/22/24 09:24	1	0.020	04/30/24 13:23	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03616-10
Name: OM01
Matrix: Ground Water - Grab

Sampled: 04/18/24 11:20
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	34	mg/L		04/29/24 20:37	5	5.0	04/29/24 20:37	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		04/29/24 20:19	1	0.250	04/29/24 20:19	JSM	EPA 300.0 REV 2.1
Sulfate	1800	mg/L		04/29/24 20:55	250	250	04/29/24 20:55	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.15	Feet		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Dissolved oxygen, Field	1.7	mg/L		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Oxidation Reduction Potential	125	mV		04/18/24 11:20	1	-500	04/18/24 11:20	FIELD	Field*
pH, Field Measured	6.40	pH Units		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Specific Conductance, Field Measured	3392	umhos/cm		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Temperature, Field Measured	16.9	°C		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Temperature, Field Measured	62.4	°F		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Turbidity, Field Measured	16.8	NTU		04/18/24 11:20	1	0.00	04/18/24 11:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	540	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3000	mg/L		04/23/24 09:07	1	17	04/23/24 10:22	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/22/24 09:24	5	3.0	04/29/24 17:55	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/22/24 09:24	5	1.0	05/01/24 14:37	TJJ	EPA 6020A
Barium	15	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:55	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:55	TJJ	EPA 6020A
Boron	390	ug/L		04/22/24 09:24	50	100	04/24/24 14:47	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 18:40	TJJ	EPA 6020A
Calcium	570	mg/L		04/22/24 09:24	50	2.0	04/24/24 14:47	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/22/24 09:24	5	4.0	04/22/24 18:40	TJJ	EPA 6020A
Cobalt	13	ug/L		04/22/24 09:24	5	2.0	04/22/24 18:40	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:55	TJJ	EPA 6020A
Magnesium	250	mg/L		04/22/24 09:24	5	0.10	04/22/24 18:40	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/22/24 09:24	5	0.20	04/29/24 17:55	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 18:40	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03616-10
Name: OM01
Matrix: Ground Water - Grab

Sampled: 04/18/24 11:20
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.77	mg/L		04/22/24 09:24	5	0.10	04/22/24 18:40	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 18:40	TJJ	EPA 6020A
Sodium	27	mg/L		04/22/24 09:24	5	0.10	04/22/24 18:40	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:55	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/22/24 09:24	1	0.020	04/30/24 14:46	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03616-11
Name: OMO1 Dup
Matrix: Ground Water - Grab

Sampled: 04/18/24 11:20
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	34	mg/L		04/29/24 21:31	5	5.0	04/29/24 21:31	JSM	EPA 300.0 REV 2.1
Sulfate	1800	mg/L		04/29/24 22:25	250	250	04/29/24 22:25	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.15	Feet		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Dissolved oxygen, Field	1.7	mg/L		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Oxidation Reduction Potential	125	mV		04/18/24 11:20	1	-500	04/18/24 11:20	FIELD	Field*
pH, Field Measured	6.40	pH Units		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Specific Conductance, Field Measured	3392	umhos/cm		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Temperature, Field Measured	62.4	°F		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Temperature, Field Measured	16.9	°C		04/18/24 11:20	1		04/18/24 11:20	FIELD	Field*
Turbidity, Field Measured	16.8	NTU		04/18/24 11:20	1	0.00	04/18/24 11:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Fluoride	< 0.250	mg/L		05/02/24 14:06	1	0.250	05/02/24 14:06	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3000	mg/L		04/23/24 09:07	1	17	04/23/24 10:22	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/22/24 09:24	5	3.0	04/29/24 17:59	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/22/24 09:24	5	1.0	05/01/24 14:41	TJJ	EPA 6020A
Barium	16	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:59	TJJ	EPA 6020A
Boron	280	ug/L		04/22/24 09:24	50	100	04/24/24 14:50	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 18:44	TJJ	EPA 6020A
Calcium	580	mg/L		04/22/24 09:24	50	2.0	04/24/24 14:50	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/22/24 09:24	5	4.0	04/22/24 18:44	TJJ	EPA 6020A
Cobalt	13	ug/L		04/22/24 09:24	5	2.0	04/22/24 18:44	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:59	TJJ	EPA 6020A
Magnesium	250	mg/L		04/22/24 09:24	5	0.10	04/22/24 18:44	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/22/24 09:24	5	0.20	04/29/24 17:59	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 18:44	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03616-11
Name: OMO1 Dup
Matrix: Ground Water - Grab

Sampled: 04/18/24 11:20
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.78	mg/L		04/22/24 09:24	5	0.10	04/22/24 18:44	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/22/24 18:44	TJJ	EPA 6020A
Sodium	27	mg/L		04/22/24 09:24	5	0.10	04/22/24 18:44	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/22/24 09:24	5	1.0	04/29/24 17:59	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/22/24 09:24	1	0.020	04/30/24 14:47	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03616-12
Name: OM07
Matrix: Ground Water - Grab

Sampled: 04/18/24 13:02
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	11	mg/L		04/29/24 23:01	5	5.0	04/29/24 23:01	JSM	EPA 300.0 REV 2.1
Fluoride	0.254	mg/L		04/29/24 22:43	1	0.250	04/29/24 22:43	JSM	EPA 300.0 REV 2.1
Sulfate	190	mg/L		04/29/24 23:19	25	25	04/29/24 23:19	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.11	Feet		04/18/24 13:02	1		04/18/24 13:02	FIELD	Field*
Dissolved oxygen, Field	0.65	mg/L		04/18/24 13:02	1		04/18/24 13:02	FIELD	Field*
Oxidation Reduction Potential	74.1	mV		04/18/24 13:02	1	-500	04/18/24 13:02	FIELD	Field*
pH, Field Measured	6.83	pH Units		04/18/24 13:02	1		04/18/24 13:02	FIELD	Field*
Specific Conductance, Field Measured	1149	umhos/cm		04/18/24 13:02	1		04/18/24 13:02	FIELD	Field*
Temperature, Field Measured	17.1	°C		04/18/24 13:02	1		04/18/24 13:02	FIELD	Field*
Temperature, Field Measured	62.8	°F		04/18/24 13:02	1		04/18/24 13:02	FIELD	Field*
Turbidity, Field Measured	1.87	NTU		04/18/24 13:02	1	0.00	04/18/24 13:02	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	720	mg/L		04/23/24 09:07	1	17	04/23/24 10:22	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/23/24 09:01	5	3.0	04/26/24 11:07	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Barium	46	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Boron	370	ug/L		04/23/24 09:01	5	10	04/30/24 12:04	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Calcium	140	mg/L		04/23/24 09:01	5	0.20	04/26/24 11:07	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/23/24 09:01	5	4.0	04/26/24 11:07	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/23/24 09:01	5	2.0	04/26/24 11:07	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Magnesium	71	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:07	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/23/24 09:01	5	0.20	04/26/24 11:07	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03616-12
Name: OM07
Matrix: Ground Water - Grab

Sampled: 04/18/24 13:02
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	1.0	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:26	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Sodium	51	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:07	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:07	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/23/24 09:01	1	0.020	04/30/24 14:51	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03616-13
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 04/18/24 13:49
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	46	mg/L		04/29/24 23:56	10	10	04/29/24 23:56	JSM	EPA 300.0 REV 2.1
Fluoride	0.278	mg/L		04/29/24 23:37	1	0.250	04/29/24 23:37	JSM	EPA 300.0 REV 2.1
Sulfate	270	mg/L		04/30/24 00:14	50	50	04/30/24 00:14	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.23	Feet		04/18/24 13:49	1		04/18/24 13:49	FIELD	Field*
Dissolved oxygen, Field	0.53	mg/L		04/18/24 13:49	1		04/18/24 13:49	FIELD	Field*
Oxidation Reduction Potential	-17.4	mV		04/18/24 13:49	1	-500	04/18/24 13:49	FIELD	Field*
pH, Field Measured	6.78	pH Units		04/18/24 13:49	1		04/18/24 13:49	FIELD	Field*
Specific Conductance, Field Measured	1706	umhos/cm		04/18/24 13:49	1		04/18/24 13:49	FIELD	Field*
Temperature, Field Measured	16.8	°C		04/18/24 13:49	1		04/18/24 13:49	FIELD	Field*
Temperature, Field Measured	62.3	°F		04/18/24 13:49	1		04/18/24 13:49	FIELD	Field*
Turbidity, Field Measured	28.7	NTU		04/18/24 13:49	1	0.00	04/18/24 13:49	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	660	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		04/23/24 09:07	1	17	04/23/24 10:22	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/23/24 09:01	5	3.0	04/26/24 11:11	TJJ	EPA 6020A
Arsenic	4.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Barium	31	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Boron	1700	ug/L		04/23/24 09:01	5	10	04/30/24 12:22	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Calcium	120	mg/L		04/23/24 09:01	5	0.20	04/26/24 11:11	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/23/24 09:01	5	4.0	04/26/24 11:11	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/23/24 09:01	5	2.0	04/26/24 11:11	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Magnesium	58	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:11	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/23/24 09:01	5	0.20	04/26/24 11:11	TJJ	EPA 6020A
Molybdenum	7.6	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03616-13
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 04/18/24 13:49
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	4.6	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:30	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Sodium	240	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:11	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:11	TJJ	EPA 6020A
Lithium	0.027	mg/L		04/23/24 09:01	1	0.020	04/30/24 14:52	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03616-14
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 04/18/24 14:35
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	33	mg/L		04/30/24 00:50	10	10	04/30/24 00:50	JSM	EPA 300.0 REV 2.1
Fluoride	0.286	mg/L		04/30/24 00:32	1	0.250	04/30/24 00:32	JSM	EPA 300.0 REV 2.1
Sulfate	860	mg/L		04/30/24 01:08	100	100	04/30/24 01:08	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.68	Feet		04/18/24 14:35	1		04/18/24 14:35	FIELD	Field*
Dissolved oxygen, Field	0.72	mg/L		04/18/24 14:35	1		04/18/24 14:35	FIELD	Field*
Oxidation Reduction Potential	-31.0	mV		04/18/24 14:35	1	-500	04/18/24 14:35	FIELD	Field*
pH, Field Measured	6.68	pH Units		04/18/24 14:35	1		04/18/24 14:35	FIELD	Field*
Specific Conductance, Field Measured	2003	umhos/cm		04/18/24 14:35	1		04/18/24 14:35	FIELD	Field*
Temperature, Field Measured	15.8	°C		04/18/24 14:35	1		04/18/24 14:35	FIELD	Field*
Temperature, Field Measured	60.5	°F		04/18/24 14:35	1		04/18/24 14:35	FIELD	Field*
Turbidity, Field Measured	13.2	NTU		04/18/24 14:35	1	0.00	04/18/24 14:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1600	mg/L		04/23/24 09:07	1	17	04/23/24 10:22	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/23/24 09:01	5	3.0	04/26/24 11:15	TJJ	EPA 6020A
Arsenic	6.1	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Barium	25	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Boron	2000	ug/L		04/23/24 09:01	5	10	04/30/24 12:26	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Calcium	310	mg/L		04/23/24 09:01	5	0.20	04/26/24 11:15	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/23/24 09:01	5	4.0	04/26/24 11:15	TJJ	EPA 6020A
Cobalt	2.4	ug/L		04/23/24 09:01	5	2.0	04/26/24 11:15	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Magnesium	130	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:15	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/23/24 09:01	5	0.20	04/26/24 11:15	TJJ	EPA 6020A
Molybdenum	6.5	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03616-14
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 04/18/24 14:35
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	2.7	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:49	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Sodium	41	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:15	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:15	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		04/23/24 09:01	1	0.020	04/30/24 14:53	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD03616-15
Name: OM21
Matrix: Ground Water - Grab

Sampled: 04/18/24 15:18
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	240	mg/L		04/30/24 02:20	50	50	04/30/24 02:20	JSM	EPA 300.0 REV 2.1
Fluoride	0.306	mg/L		04/30/24 02:02	1	0.250	04/30/24 02:02	JSM	EPA 300.0 REV 2.1
Sulfate	1000	mg/L		04/30/24 02:38	250	250	04/30/24 02:38	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.69	Feet		04/18/24 15:18	1		04/18/24 15:18	FIELD	Field*
Dissolved oxygen, Field	0.56	mg/L		04/18/24 15:18	1		04/18/24 15:18	FIELD	Field*
Oxidation Reduction Potential	95.3	mV		04/18/24 15:18	1	-500	04/18/24 15:18	FIELD	Field*
pH, Field Measured	6.78	pH Units		04/18/24 15:18	1		04/18/24 15:18	FIELD	Field*
Specific Conductance, Field Measured	3095	umhos/cm		04/18/24 15:18	1		04/18/24 15:18	FIELD	Field*
Temperature, Field Measured	65.3	°F		04/18/24 15:18	1		04/18/24 15:18	FIELD	Field*
Temperature, Field Measured	18.5	°C		04/18/24 15:18	1		04/18/24 15:18	FIELD	Field*
Turbidity, Field Measured	3.02	NTU		04/18/24 15:18	1	0.00	04/18/24 15:18	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 2.0	mg/L		04/23/24 08:03	1	2.0	04/23/24 08:03	TMS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2400	mg/L		04/23/24 09:07	1	17	04/23/24 10:22	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		04/23/24 09:01	5	3.0	04/26/24 11:19	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Barium	17	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Boron	8000	ug/L		04/23/24 09:01	5	10	04/30/24 12:30	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Calcium	310	mg/L		04/23/24 09:01	5	0.20	04/26/24 11:19	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		04/23/24 09:01	5	4.0	04/26/24 11:19	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		04/23/24 09:01	5	2.0	04/26/24 11:19	TJJ	EPA 6020A
Lead	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Magnesium	150	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:19	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		04/23/24 09:01	5	0.20	04/26/24 11:19	TJJ	EPA 6020A
Molybdenum	1.9	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HD03616-15
Name: OM21
Matrix: Ground Water - Grab

Sampled: 04/18/24 15:18
Received: 04/18/24 16:35
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	10	mg/L		04/23/24 09:01	5	0.10	04/29/24 12:53	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Sodium	300	mg/L		04/23/24 09:01	5	0.10	04/26/24 11:19	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		04/23/24 09:01	5	1.0	04/26/24 11:19	TJJ	EPA 6020A
Lithium	0.040	mg/L		04/23/24 09:01	1	0.020	04/30/24 14:54	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HD05160-08
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 04/30/24 10:59
Received: 04/30/24 16:22
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4300	mg/L	B2	05/03/24 13:15	1	26	05/03/24 14:57	CGL	SM 2540C

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B430686 - No Prep - SM 2320B 1997									
Duplicate (B430686-DUP1)	**Sample: HD02822-11**			Prepared & Analyzed: 04/16/24					
Alkalinity - bicarbonate as CaCO3	312	mg/L			312			0	10
Duplicate (B430686-DUP3)	**Sample: HD02822-01**			Prepared & Analyzed: 04/16/24					
Alkalinity - bicarbonate as CaCO3	412	mg/L			425			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B430700 - SW 3015 - EPA 6010B									
Blank (B430700-BLK1)				Prepared: 04/17/24 Analyzed: 04/19/24					
Lithium	< 0.020	mg/L							
LCS (B430700-BS1)				Prepared: 04/17/24 Analyzed: 04/19/24					
Lithium	0.559	mg/L		0.5556		101	80-120		
Matrix Spike (B430700-MS1)	**Sample: HD03060-01**			Prepared: 04/17/24 Analyzed: 04/19/24					
Lithium	0.593	mg/L		0.5556	ND	107	75-125		
Matrix Spike Dup (B430700-MSD1)	**Sample: HD03060-01**			Prepared: 04/17/24 Analyzed: 04/19/24					
Lithium	0.585	mg/L		0.5556	ND	105	75-125	1	20
Batch B430700 - SW 3015 - EPA 6020A									
Blank (B430700-BLK1)				Prepared: 04/17/24 Analyzed: 04/18/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B430700-BS1)				Prepared: 04/17/24 Analyzed: 04/18/24					
Antimony	561	ug/L		555.6		101	80-120		
Arsenic	553	ug/L		555.6		100	80-120		
Barium	559	ug/L		555.6		101	80-120		
Beryllium	574	ug/L		555.6		103	80-120		
Boron	544	ug/L		555.6		98	80-120		
Cadmium	574	ug/L		555.6		103	80-120		
Calcium	5.94	mg/L		5.556		107	80-120		
Chromium	571	ug/L		555.6		103	80-120		
Cobalt	567	ug/L		555.6		102	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B430700-BS1)				Prepared: 04/17/24 Analyzed: 04/18/24					
Lead	557	ug/L		555.6		100	80-120		
Magnesium	6.02	mg/L		5.556		108	80-120		
Mercury	56.6	ug/L		55.56		102	80-120		
Molybdenum	546	ug/L		555.6		98	80-120		
Potassium	5.82	mg/L		5.556		105	80-120		
Selenium	566	ug/L		555.6		102	80-120		
Sodium	6.10	mg/L		5.556		110	80-120		
Thallium	533	ug/L		555.6		96	80-120		
Matrix Spike (B430700-MS1)	**Sample: HD03060-01**			Prepared: 04/17/24 Analyzed: 04/18/24					
Antimony	572	ug/L		555.6	ND	103	75-125		
Arsenic	570	ug/L		555.6	0.706	102	75-125		
Barium	695	ug/L		555.6	131	102	75-125		
Beryllium	584	ug/L		555.6	ND	105	75-125		
Boron	581	ug/L		555.6	23.8	100	75-125		
Cadmium	579	ug/L		555.6	ND	104	75-125		
Calcium	130	mg/L		5.556	125	83	75-125		
Chromium	573	ug/L		555.6	ND	103	75-125		
Cobalt	556	ug/L		555.6	0.756	100	75-125		
Lead	555	ug/L		555.6	ND	100	75-125		
Magnesium	65.2	mg/L		5.556	59.9	95	75-125		
Mercury	58.7	ug/L		55.56	ND	106	75-125		
Molybdenum	560	ug/L		555.6	1.01	101	75-125		
Potassium	6.56	mg/L		5.556	0.661	106	75-125		
Selenium	580	ug/L		555.6	ND	104	75-125		
Sodium	17.0	mg/L		5.556	11.1	106	75-125		
Thallium	534	ug/L		555.6	ND	96	75-125		
Matrix Spike Dup (B430700-MSD1)	**Sample: HD03060-01**			Prepared: 04/17/24 Analyzed: 04/18/24					
Antimony	569	ug/L		555.6	ND	102	75-125	0.6	20
Arsenic	564	ug/L		555.6	0.706	101	75-125	1	20
Barium	688	ug/L		555.6	131	100	75-125	1	20
Beryllium	584	ug/L		555.6	ND	105	75-125	0.02	20
Boron	588	ug/L		555.6	23.8	101	75-125	1	20
Cadmium	574	ug/L		555.6	ND	103	75-125	0.9	20
Calcium	130	mg/L		5.556	125	83	75-125	0.03	20
Chromium	567	ug/L		555.6	ND	102	75-125	1	20
Cobalt	547	ug/L		555.6	0.756	98	75-125	2	20
Lead	555	ug/L		555.6	ND	100	75-125	0.06	20
Magnesium	65.7	mg/L		5.556	59.9	104	75-125	0.7	20
Mercury	58.0	ug/L		55.56	ND	104	75-125	1	20
Molybdenum	553	ug/L		555.6	1.01	99	75-125	1	20
Potassium	6.53	mg/L		5.556	0.661	106	75-125	0.5	20
Selenium	572	ug/L		555.6	ND	103	75-125	1	20
Sodium	17.0	mg/L		5.556	11.1	106	75-125	0.04	20
Thallium	533	ug/L		555.6	ND	96	75-125	0.2	20
Batch B430821 - SW 3015 - EPA 6010B									
Blank (B430821-BLK1)				Prepared & Analyzed: 04/18/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B430821-BLK1)				Prepared & Analyzed: 04/18/24					
Lithium	< 0.020	mg/L							
LCS (B430821-BS1)				Prepared & Analyzed: 04/18/24					
Lithium	0.614	mg/L		0.5556		110	80-120		
Batch B430821 - SW 3015 - EPA 6020A									
Blank (B430821-BLK1)				Prepared: 04/18/24 Analyzed: 04/19/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	0.160	mg/L	B						
Thallium	< 1.0	ug/L							
LCS (B430821-BS1)				Prepared: 04/18/24 Analyzed: 04/19/24					
Antimony	543	ug/L		555.6		98	80-120		
Arsenic	568	ug/L		555.6		102	80-120		
Barium	551	ug/L		555.6		99	80-120		
Beryllium	595	ug/L		555.6		107	80-120		
Boron	573	ug/L		555.6		103	80-120		
Cadmium	553	ug/L		555.6		99	80-120		
Calcium	5.94	mg/L		5.556		107	80-120		
Chromium	557	ug/L		555.6		100	80-120		
Cobalt	577	ug/L		555.6		104	80-120		
Lead	554	ug/L		555.6		100	80-120		
Magnesium	6.31	mg/L		5.556		114	80-120		
Mercury	55.6	ug/L		55.56		100	80-120		
Molybdenum	540	ug/L		555.6		97	80-120		
Potassium	6.04	mg/L		5.556		109	80-120		
Selenium	568	ug/L		555.6		102	80-120		
Sodium	6.35	mg/L		5.556		114	80-120		
Thallium	549	ug/L		555.6		99	80-120		
Matrix Spike (B430821-MS1)	**Sample: HD02822-01**			Prepared: 04/18/24 Analyzed: 04/19/24					
Antimony	539	ug/L		555.6	ND	97	75-125		
Arsenic	570	ug/L		555.6	1.09	102	75-125		
Barium	659	ug/L		555.6	111	99	75-125		
Beryllium	596	ug/L		555.6	ND	107	75-125		
Boron	600	ug/L		555.6	22.4	104	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B430821-MS1)	**Sample: HD02822-01**			Prepared: 04/18/24 Analyzed: 04/19/24					
Cadmium	554	ug/L		555.6	ND	100	75-125		
Calcium	138	mg/L		5.556	134	76	75-125		
Chromium	556	ug/L		555.6	ND	100	75-125		
Cobalt	557	ug/L		555.6	0.772	100	75-125		
Lead	552	ug/L		555.6	4.12	99	75-125		
Magnesium	57.2	mg/L		5.556	51.7	99	75-125		
Mercury	57.4	ug/L		55.56	0.528	102	75-125		
Molybdenum	548	ug/L		555.6	1.19	98	75-125		
Potassium	6.84	mg/L		5.556	0.869	108	75-125		
Selenium	567	ug/L		555.6	1.71	102	75-125		
Sodium	26.7	mg/L		5.556	20.7	107	75-125		
Thallium	547	ug/L		555.6	ND	99	75-125		
Matrix Spike Dup (B430821-MSD1)	**Sample: HD02822-01**			Prepared: 04/18/24 Analyzed: 04/19/24					
Antimony	527	ug/L		555.6	ND	95	75-125	2	20
Arsenic	566	ug/L		555.6	1.09	102	75-125	0.8	20
Barium	650	ug/L		555.6	111	97	75-125	1	20
Beryllium	593	ug/L		555.6	ND	107	75-125	0.6	20
Boron	586	ug/L		555.6	22.4	101	75-125	2	20
Cadmium	549	ug/L		555.6	ND	99	75-125	0.9	20
Calcium	138	mg/L	Q2	5.556	134	73	75-125	0.1	20
Chromium	553	ug/L		555.6	ND	99	75-125	0.6	20
Cobalt	550	ug/L		555.6	0.772	99	75-125	1	20
Lead	542	ug/L		555.6	4.12	97	75-125	2	20
Magnesium	57.1	mg/L		5.556	51.7	98	75-125	0.1	20
Mercury	57.0	ug/L		55.56	0.528	102	75-125	0.8	20
Molybdenum	545	ug/L		555.6	1.19	98	75-125	0.6	20
Potassium	6.74	mg/L		5.556	0.869	106	75-125	1	20
Selenium	566	ug/L		555.6	1.71	102	75-125	0.1	20
Sodium	26.5	mg/L		5.556	20.7	105	75-125	0.5	20
Thallium	538	ug/L		555.6	ND	97	75-125	2	20
Batch B430992 - No Prep - SM 2540C									
Blank (B430992-BLK1)				Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B430992-BS1)				Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	920	mg/L		1000		92	84.9-109		
Duplicate (B430992-DUP1)	**Sample: HD02822-01**			Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	495	mg/L			505			2	5
Duplicate (B430992-DUP2)	**Sample: HD03060-01**			Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	595	mg/L			590			0.8	5
Batch B430993 - No Prep - SM 2540C									
Blank (B430993-BLK1)				Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B430993-BS1)				Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	957	mg/L		1000		96	84.9-109		
Duplicate (B430993-DUP1)	**Sample: HD03060-11**			Prepared & Analyzed: 04/19/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B430993-DUP1)	**Sample: HD03060-11**			Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	535	mg/L			555			4	5
Duplicate (B430993-DUP2)	**Sample: HD03379-01**			Prepared & Analyzed: 04/19/24					
Solids - total dissolved solids (TDS)	480	mg/L			465			3	5
Batch B431063 - No Prep - SM 2540C									
Blank (B431063-BLK1)				Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431063-BS1)				Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	957	mg/L		1000		96	84.9-109		
Duplicate (B431063-DUP1)	**Sample: HD03379-06**			Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	810	mg/L			825			2	5
Duplicate (B431063-DUP2)	**Sample: HD03379-07**			Prepared & Analyzed: 04/22/24					
Solids - total dissolved solids (TDS)	2110	mg/L			2090			1	5
Batch B431072 - SW 3015 - EPA 6010B									
Blank (B431072-BLK1)				Prepared: 04/22/24 Analyzed: 04/30/24					
Lithium	< 0.020	mg/L							
LCS (B431072-BS1)				Prepared: 04/22/24 Analyzed: 04/30/24					
Lithium	0.637	mg/L		0.5556		115	80-120		
Batch B431072 - SW 3015 - EPA 6020A									
Blank (B431072-BLK1)				Prepared & Analyzed: 04/22/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B431072-BS1)				Prepared & Analyzed: 04/22/24					
Antimony	513	ug/L		555.6		92	80-120		
Arsenic	591	ug/L		555.6		106	80-120		
Barium	527	ug/L		555.6		95	80-120		
Beryllium	584	ug/L		555.6		105	80-120		
Boron	542	ug/L		555.6		98	80-120		
Cadmium	538	ug/L		555.6		97	80-120		
Calcium	5.99	mg/L		5.556		108	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B431072-BS1)				Prepared & Analyzed: 04/22/24					
Chromium	570	ug/L		555.6		103	80-120		
Cobalt	519	ug/L		555.6		93	80-120		
Lead	600	ug/L		555.6		108	80-120		
Magnesium	6.33	mg/L		5.556		114	80-120		
Mercury	48.6	ug/L		55.56		87	80-120		
Molybdenum	522	ug/L		555.6		94	80-120		
Potassium	6.00	mg/L		5.556		108	80-120		
Selenium	549	ug/L		555.6		99	80-120		
Sodium	5.80	mg/L		5.556		104	80-120		
Thallium	591	ug/L		555.6		106	80-120		
Batch B431090 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431090-CCB1)				Prepared & Analyzed: 04/19/24					
Chloride	0.102	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431090-CCV1)				Prepared & Analyzed: 04/19/24					
Chloride	5.16	mg/L		5.000		103	90-110		
Sulfate	5.16	mg/L		5.000		103	90-110		
Batch B431091 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431091-CCB1)				Prepared & Analyzed: 04/19/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431091-CCV1)				Prepared & Analyzed: 04/19/24					
Sulfate	4.97	mg/L		5.000		99	90-110		
Chloride	4.84	mg/L		5.000		97	90-110		
Matrix Spike (B431091-MS2)	**Sample: HD03616-07**			Prepared & Analyzed: 04/19/24					
Sulfate	1.00E9	mg/L	Q4	1.500	131	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	100	NR	80-120		
Matrix Spike Dup (B431091-MSD2)	**Sample: HD03616-07**			Prepared & Analyzed: 04/19/24					
Chloride	1.0E9	mg/L	Q4	1.500	100	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	131	NR	80-120	0	20
Batch B431184 - SW 3015 - EPA 6010B									
Blank (B431184-BLK1)				Prepared: 04/23/24 Analyzed: 04/30/24					
Lithium	< 0.020	mg/L							
LCS (B431184-BS1)				Prepared: 04/23/24 Analyzed: 04/30/24					
Lithium	0.550	mg/L		0.5556		99	80-120		
Batch B431184 - SW 3015 - EPA 6020A									
Blank (B431184-BLK1)				Prepared: 04/23/24 Analyzed: 04/26/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B431184-BLK1)				Prepared: 04/23/24 Analyzed: 04/26/24					
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B431184-BS1)				Prepared: 04/23/24 Analyzed: 04/26/24					
Antimony	559	ug/L		555.6		101	80-120		
Arsenic	549	ug/L		555.6		99	80-120		
Barium	565	ug/L		555.6		102	80-120		
Beryllium	541	ug/L		555.6		97	80-120		
Boron	494	ug/L		555.6		89	80-120		
Cadmium	538	ug/L		555.6		97	80-120		
Calcium	5.94	mg/L		5.556		107	80-120		
Chromium	553	ug/L		555.6		100	80-120		
Cobalt	550	ug/L		555.6		99	80-120		
Lead	530	ug/L		555.6		95	80-120		
Magnesium	5.99	mg/L		5.556		108	80-120		
Mercury	55.1	ug/L		55.56		99	80-120		
Molybdenum	552	ug/L		555.6		99	80-120		
Potassium	5.91	mg/L		5.556		106	80-120		
Selenium	547	ug/L		555.6		98	80-120		
Sodium	6.07	mg/L		5.556		109	80-120		
Thallium	542	ug/L		555.6		98	80-120		
Batch B431186 - No Prep - SM 2540C									
Blank (B431186-BLK1)				Prepared & Analyzed: 04/23/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431186-BS1)				Prepared & Analyzed: 04/23/24					
Solids - total dissolved solids (TDS)	927	mg/L		1000		93	84.9-109		
Duplicate (B431186-DUP2)	**Sample: HD03616-01**			Prepared & Analyzed: 04/23/24					
Solids - total dissolved solids (TDS)	230	mg/L			240			4	5
Batch B431222 - No Prep - SM 2320B 1997									
Blank (B431222-BLK1)				Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Blank (B431222-BLK2)				Prepared & Analyzed: 04/23/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Blank (B431222-BLK3)				Prepared & Analyzed: 04/23/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B431222-BLK3)				Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Duplicate (B431222-DUP1)	**Sample: HD03060-01**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	412	mg/L			375			10	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B431222-DUP2)	**Sample: HD03060-11**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	512	mg/L			500			2	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B431222-DUP3)	**Sample: HD03379-01**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	462	mg/L			438			6	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B431222-DUP4)	**Sample: HD03379-11**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	588	mg/L			600			2	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B431222-DUP5)	**Sample: HD03616-01**			Prepared & Analyzed: 04/23/24					
Alkalinity - bicarbonate as CaCO3	250	mg/L			262			5	10
Alkalinity - carbonate as CaCO3	< 2.0	mg/L			ND				10
Duplicate (B431222-DUP6)	**Sample: HD03616-11**			Prepared & Analyzed: 04/23/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	512	mg/L			525			2	10
Batch B431225 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431225-CCB1)				Prepared & Analyzed: 04/22/24					
Fluoride	0.00	mg/L							
Calibration Blank (B431225-CCB2)				Prepared & Analyzed: 04/22/24					
Fluoride	0.00	mg/L							
Calibration Check (B431225-CCV1)				Prepared & Analyzed: 04/22/24					
Fluoride	5.19	mg/L		5.000		104	90-110		
Calibration Check (B431225-CCV2)				Prepared & Analyzed: 04/22/24					
Fluoride	5.16	mg/L		5.000		103	90-110		
Batch B431381 - SW 3015 - EPA 6010B									
Blank (B431381-BLK1)				Prepared: 04/25/24 Analyzed: 04/30/24					
Lithium	< 0.020	mg/L							
LCS (B431381-BS1)				Prepared: 04/25/24 Analyzed: 04/30/24					
Lithium	0.576	mg/L		0.5556		104	80-120		
Batch B431381 - SW 3015 - EPA 6020A									
Blank (B431381-BLK1)				Prepared: 04/25/24 Analyzed: 04/29/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B431381-BLK1)				Prepared: 04/25/24 Analyzed: 04/29/24					
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B431381-BS1)				Prepared: 04/25/24 Analyzed: 04/29/24					
Antimony	560	ug/L		555.6		101	80-120		
Arsenic	578	ug/L		555.6		104	80-120		
Barium	575	ug/L		555.6		104	80-120		
Beryllium	570	ug/L		555.6		103	80-120		
Boron	551	ug/L		555.6		99	80-120		
Cadmium	574	ug/L		555.6		103	80-120		
Calcium	5.96	mg/L		5.556		107	80-120		
Chromium	572	ug/L		555.6		103	80-120		
Cobalt	561	ug/L		555.6		101	80-120		
Lead	602	ug/L		555.6		108	80-120		
Magnesium	6.55	mg/L		5.556		118	80-120		
Mercury	57.5	ug/L		55.56		103	80-120		
Molybdenum	539	ug/L		555.6		97	80-120		
Potassium	5.94	mg/L		5.556		107	80-120		
Selenium	557	ug/L		555.6		100	80-120		
Sodium	6.60	mg/L		5.556		119	80-120		
Thallium	575	ug/L		555.6		104	80-120		
Batch B431429 - No Prep - SM 4500F C 1997									
Calibration Blank (B431429-CCB1)				Prepared & Analyzed: 04/25/24					
Fluoride	0.0220	mg/L							
Calibration Blank (B431429-CCB2)				Prepared & Analyzed: 04/25/24					
Fluoride	0.0240	mg/L							
Calibration Check (B431429-CCV1)				Prepared & Analyzed: 04/25/24					
Fluoride	0.680	mg/L		0.7000		97	90-110		
Calibration Check (B431429-CCV2)				Prepared & Analyzed: 04/25/24					
Fluoride	0.710	mg/L		0.7000		101	90-110		
Batch B431536 - No Prep - SM 2540C									
Blank (B431536-BLK1)				Prepared & Analyzed: 04/26/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B431536-BS1)				Prepared & Analyzed: 04/26/24					
Solids - total dissolved solids (TDS)	937	mg/L		1000		94	84.9-109		
Batch B431569 - No Prep - SM 4500F C 1997									
Calibration Blank (B431569-CCB1)				Prepared & Analyzed: 04/26/24					
Fluoride	0.0180	mg/L							
Calibration Blank (B431569-CCB2)				Prepared & Analyzed: 04/26/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B431569-CCB2)				Prepared & Analyzed: 04/26/24					
Fluoride	0.0220	mg/L							
Calibration Check (B431569-CCV1)				Prepared & Analyzed: 04/26/24					
Fluoride	0.699	mg/L		0.7000		100	90-110		
Calibration Check (B431569-CCV2)				Prepared & Analyzed: 04/26/24					
Fluoride	0.716	mg/L		0.7000		102	90-110		
Matrix Spike (B431569-MS1)	**Sample: HD02822-07**			Prepared & Analyzed: 04/26/24					
Fluoride	1.28	mg/L		1.000	0.238	105	80-120		
Matrix Spike Dup (B431569-MSD1)	**Sample: HD02822-07**			Prepared & Analyzed: 04/26/24					
Fluoride	1.29	mg/L		1.000	0.238	106	80-120	0.7	20
Batch B431641 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431641-CCB1)				Prepared & Analyzed: 04/26/24					
Fluoride	0.00	mg/L							
Chloride	0.0781	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431641-CCV1)				Prepared & Analyzed: 04/26/24					
Fluoride	5.40	mg/L		5.000		108	90-110		
Sulfate	5.17	mg/L		5.000		103	90-110		
Chloride	5.07	mg/L		5.000		101	90-110		
Matrix Spike (B431641-MS1)	**Sample: HD03060-01**			Prepared & Analyzed: 04/26/24					
Sulfate	1.00E9	mg/L	Q4	1.500	145	NR	80-120		
Fluoride	1.73	mg/L		1.500	0.185	103	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike (B431641-MS2)	**Sample: HD03060-03**			Prepared & Analyzed: 04/26/24					
Fluoride	1.70	mg/L		1.500	0.165	102	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	9.4	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	13.7	NR	80-120		
Matrix Spike Dup (B431641-MSD1)	**Sample: HD03060-01**			Prepared & Analyzed: 04/26/24					
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	145	NR	80-120	0	20
Fluoride	1.77	mg/L		1.500	0.185	106	80-120	2	20
Matrix Spike Dup (B431641-MSD2)	**Sample: HD03060-03**			Prepared & Analyzed: 04/26/24					
Chloride	1.0E9	mg/L	Q4	1.500	9.4	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	13.7	NR	80-120	0	20
Fluoride	1.70	mg/L		1.500	0.165	103	80-120	0.3	20
Batch B431761 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431761-CCB1)				Prepared & Analyzed: 04/29/24					
Fluoride	0.00	mg/L							
Chloride	0.650	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B431761-CCV1)				Prepared & Analyzed: 04/29/24					
Sulfate	4.89	mg/L		5.000		98	90-110		
Fluoride	5.05	mg/L		5.000		101	90-110		
Chloride	4.82	mg/L		5.000		96	90-110		
Matrix Spike (B431761-MS1)	**Sample: HD03616-01**			Prepared & Analyzed: 04/30/24					
Sulfate	3.83	mg/L		1.500	2.20	108	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B431761-MS1)	**Sample: HD03616-01**			Prepared & Analyzed: 04/30/24					
Chloride	4.6	mg/L		1.500	3.2	98	80-120		
Matrix Spike (B431761-MS2)	**Sample: HD03616-02**			Prepared & Analyzed: 04/30/24					
Sulfate	1.00E9	mg/L	Q4	1.500	17.5	NR	80-120		
Fluoride	1.67	mg/L		1.500	0.226	96	80-120		
Matrix Spike Dup (B431761-MSD1)	**Sample: HD03616-01**			Prepared & Analyzed: 04/30/24					
Chloride	4.7	mg/L		1.500	3.2	102	80-120	1	20
Sulfate	< 1.0	mg/L	Q2	1.500	2.20	NR	80-120		20
Matrix Spike Dup (B431761-MSD2)	**Sample: HD03616-02**			Prepared & Analyzed: 04/30/24					
Fluoride	1.61	mg/L		1.500	0.226	92	80-120	4	20
Sulfate	1.00E9	mg/L	Q4	1.500	17.5	NR	80-120	0	20
Batch B431763 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B431763-CCB1)				Prepared & Analyzed: 04/29/24					
Sulfate	0.00	mg/L							
Chloride	0.0982	mg/L							
Calibration Check (B431763-CCV1)				Prepared & Analyzed: 04/29/24					
Sulfate	4.99	mg/L		5.000		100	90-110		
Chloride	4.87	mg/L		5.000		97	90-110		
Batch B431990 - No Prep - SM 4500F C 1997									
Calibration Blank (B431990-CCB1)				Prepared & Analyzed: 05/02/24					
Fluoride	0.0230	mg/L							
Calibration Blank (B431990-CCB2)				Prepared & Analyzed: 05/02/24					
Fluoride	0.0280	mg/L							
Calibration Check (B431990-CCV1)				Prepared & Analyzed: 05/02/24					
Fluoride	0.692	mg/L		0.7000		99	90-110		
Calibration Check (B431990-CCV2)				Prepared & Analyzed: 05/02/24					
Fluoride	0.708	mg/L		0.7000		101	90-110		
Matrix Spike (B431990-MS1)	**Sample: HD03379-10**			Prepared & Analyzed: 05/02/24					
Fluoride	1.24	mg/L		1.000	0.222	102	80-120		
Matrix Spike Dup (B431990-MSD1)	**Sample: HD03379-10**			Prepared & Analyzed: 05/02/24					
Fluoride	1.26	mg/L		1.000	0.222	103	80-120	1	20
Batch B432044 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B432044-CCB1)				Prepared & Analyzed: 05/01/24					
Chloride	0.111	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B432044-CCV1)				Prepared & Analyzed: 05/01/24					
Chloride	4.69	mg/L		5.000		94	90-110		
Sulfate	4.85	mg/L		5.000		97	90-110		

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NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

Qualifiers

B	Present in the method blank at 160 ug/L.
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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

HD02822

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GSS	WT	G	4/15/24	1301		4	X	X	X																		
2	G635	WT	G	4/15/24	1435		4	X	X	X																		
3	G655	WT	G	4/15/24	1156		4	X	X	X																		
4	G73L	WT	G	4/15/24	1545		4	X	X	X																		
5	OM1L	WT	G	4/15/24	1217		4	X		X																		
6	OM17	WT	G	4/15/24	1320		4	X		X																		
7	OM24D	WT	G	4/15/24	1053		5	X		X																		
8	OR11	WT	G	4/15/24	1444		5	X		X																		
9	OR11 Dup	WT	G	4/15/24	1444		5	X		X																		
10	OR20	WT	G	4/15/24	1321		5	X		X																		
11	P36L	WT	G	4/15/24	1311		2	X		X																		
12	P36L Dup	WT	G	4/15/24	1311		2	X		X																		
13	P37L	WT	G	4/15/24	1512		2	X		X																		
14	T43L	WT	G	4/15/24	1127		2	X		X																		
15	T43L Dup	WT	G	4/15/24	1127		2	X		X																		
16	T44L	WT	G	4/15/24	1352		2	X		X																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		4/15/24	1652							
					4/15/24	1652	3.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Emberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/15/24

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

HD02822

Section D Required Client Information

Valid Matrix Codes

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	THSL	WT	G	4/15/24	1428		2	X		X																			
2	TH6L	WT	G	4/15/24	1229		2	X		X																			
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		4/15/24	1652		4/15/24	1652	3.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Aaron Pemberton			
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	04/15/24	

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

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OR02	WT	G	4/16/24	1500		5	X		X																		
2	OM04S	WT	G	4/16/24	1412		5	X		X																		
3	OM12	WT	G	4/16/24	1120		5	X		X																		
4	OR06A	WT	G	4/16/24	1205		5	X		X																		
5	OR14D	WT	G	4/16/24	1258		5	X		X																		
6	OR14	WT	G	4/16/24	1022		5	X		X																		
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		4/16/24	1609							
				Caty P. Jones	4/16/24	1609	9.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Richardson
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/16/24

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

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

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA01	WT	G	4/16/24	1257		4	X		X																			
2	BA01-Dup	WT	G	4/16/24	1257		4	X		X																			
3	BA02	WT	G	4/16/24	1130		4	X		X																			
4	BA06	WT	G	4/16/24	1432		4	X		X																			
5	GW3L	WT	G	4/16/24	1142		10	X	X	X	X	X																	
6	GW4L	WT	G	4/16/24	1325		10	X	X	X	X	X																	
7	GW7L	WT	G	4/16/24	1407		10	X	X	X	X	X																	
8	GW6S	WT	G	4/16/24	1350		4	X	X	X																			
9	GW6S-Dup	WT	G	4/16/24	1350		4	X	X	X																			
10	GW0L	WT	G	4/16/24	1054		4	X	X	X																			
11	GW1S	WT	G	4/16/24	1203		4	X	X	X																			
12	GW5S	WT	G	4/16/24	1303		~~3~~ 4	X	X	X																			
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		4/16/24	1609				9.3			
				Caty P. Jones	4/16/24	1609	Y	Y	Y	

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Aaron Ambuehl		
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	04/16/24

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

Confidential

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03060

SENDING LABORATORY

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

RECEIVING LABORATORY

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

Sample: HD03060-05
Name: G03L

Sampled: 04/16/24 11:42
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/29/24 16:00	04/30/24 11:42	

Sample: HD03060-06
Name: G04L

Sampled: 04/16/24 13:25
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/29/24 16:00	04/30/24 13:25	

Sample: HD03060-07
Name: G07L

Sampled: 04/16/24 14:47
Matrix: Ground Water
Preservative: Cool <6

Analysis	Due	Expires	Comments
02-M8260 GW G2	04/29/24 16:00	04/30/24 14:47	

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

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

Delivery Method: FedEx UPS Walk-in USPS Other

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

Date Shipped: 4/22/24 Total # of Containers: 5 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4/22/24 0500	[signature]	650 4-22-24
[signature]	4-22-24	[signature]	4/22 1030

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

Page: 1 of 10

REGULATORY AGENCY

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

Site Location STATE: IL

Section D Valid Matrix Codes

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

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

Requested Analysis Filtered (Y/N)

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

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Pemberton
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/17/24

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

HDO3379

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

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

Section D Required Client Information

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

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

MATRIX CODE (see valid codes to left); SAMPLE TYPE (G=GRAB C=COMP)

COLLECTED: DATE; TIME

SAMPLE TEMP AT COLLECTION

OF CONTAINERS

Preservatives: Unpreserved; H_2SO_4; HNO_3; HCl; NaOH; $Na_2S_2O_3$; Methanol; Other

Requested Analysis Filtered (Y/N)

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.

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GO9L	WT	G	4/17/24	1207		20	X	X	X	X	X															
2	G14L	WT	G	4/17/24	1521		10	X	X	X	X	X															
3	G515	WT	G	4/17/24	1520		5	X	X	X																	
4	G52L	WT	G	4/17/24	1350		4	X	X	X																	
5	G535	WT	G	4/17/24	1110		4	X	X	X																	
6	G53L	WT	G	4/17/24	1227		4	X	X	X																	
7	G56S	WT	G	4/17/24	1003		1	X																			
8	G62L	WT	G	4/17/24	1233		5	X	X	X																	
9	G63L	WT	G	4/17/24	1054		4	X	X	X																	
10	G65L	WT	G	4/17/24	1530		4	X	X	X																	
11	OM22D	WT	G	4/17/24	1035		5	X	X	X																	
12	OM23D	WT	G	4/17/24	1140		5	X		X																	
13	OM25S	WT	G	4/17/24	1445		5	X		X																	
14	OR03D	WT	G	4/17/24	1352		5	X		X																	
15	OR04D	WT	G	4/17/24	1300		5	X		X																	
16	R10L	WT	G	4/17/24	1334		10	X	X	X	X	X															

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

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

#1 HCL vial broken in lab accident 2C 4/17/24

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

SENDING LABORATORY

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

RECEIVING LABORATORY

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

Sample: HD03379-01
Name: G09L

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

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

Sample: HD03379-02
Name: G14L

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

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

Sample: HD03379-15
Name: R10L

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

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

Sample: HD03379-17
Name: G09L Dup

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

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

SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

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

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

Delivery Method: FedEx UPS Walk-in USPS Other

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

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

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

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

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

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

RUSH

gdj 4/30/24

S-8194, ULINE, 800-295-5510

SENDING LABORATORY

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

RECEIVING LABORATORY

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

Sample: HD03379-01
Name: G09L

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

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

Sample: HD03379-02
Name: G14L

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

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

Sample: HD03379-15
Name: R10L

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

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

Sample: HD03379-17
Name: G09L Dup

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

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

Sample 15 Only

RUSH

S-8194, ULINE, 800-295-5510

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03379

Sample #15 Only
4/30/24

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

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

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

Relinquished By	Date/Time	Received By	Date/Time		
			1000	Sample Temperature Upon Receipt	2.0 °C
Joe Clark	4/30/24		4-30-24	Sample(s) Received on Ice	Y or N
				Proper Bottles Received in Good Condition	Y or N
			1410	Bottles Filled with Adequate Volume	Y or N
	4-30-24		43024	Samples Received Within Hold Time	Y or N
Relinquished By	Date/Time	Received By	Date/Time	Date/Time Taken From Sample Bottle	Y or N

HDO3614

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

Page: 1 of 10

REGULATORY AGENCY

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

Site Location STATE: IL

Section D Valid Matrix Codes

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA02L	WT	G	4/18/24	1220		4	X		X																				
2	BA03	WT	G	4/18/24	1244		4	X		X																				
3	BA03L	WT	G	4/18/24	1401		4	X		X																				
4	BA04	WT	G	4/18/24	1508		4	X		X																				
5	BA05	WT	G	4/18/24	1133		4	X		X																				
6	GW02L	WT	G	4/18/24	1338		4	X	X	X																				
7	GW07L	WT	G	4/18/24	1445		4	X	X	X																				
8	GW11L	WT	G	4/18/24	1128		4	X	X	X																				
9	GW12L	WT	G	4/18/24	1234		4	X	X	X																				
10	OM01	WT	G	4/18/24	1120		5	X		X																				
11	OM01-Dup	WT	G	4/18/24	1120		5	X		X																				
12	OM07	WT	G	4/18/24	1302		5	X		X																				
13	OR130	WT	G	4/18/24	1349		5	X		X																				
14	OR135	WT	G	4/18/24	1435		5	X		X																				
15	OM21	WT	G	4/18/24	1518		5	X		X																				
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		4/18/24	1635				
				Caty P. Jones	4/18/24	1435	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Richardson
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/18/24

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

~~HD044441~~
HD044439

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: | **Section B** Required Project Information: | **Section C** Invoice Information: | Page: 1 of 10

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

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G54S			4/24/24	1149		5	J	J	J																			
2	G57S				1300		1																						
3	G61S				1250																								
4	G64S				1130																								
5	G60L				1140																								
6	G60S				1320		1																						
7	G51L				1120		4																						
8	G51L Dup				1120		1																						
9	G58L				1337																								
10	G58S				1355																								
11	G56L				1441																								
12	G57L				1355																								
13	R72S				1020																								
14	P60-1				1219		2	J	J	J																			
15	L103				1427		17	J	J	J	J	J																		
16	X301				1533		3	J		J																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0	Jim David	4/24/24	1653							
					4/24/24	1653	5.2	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jim David
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/24/24

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

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

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

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

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

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

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

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

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments + Total Depths	Initials
OM28	DC-OM28	201-202	AP1/2	4/12/24	1128	47.58	68.88	BG
P01I	DC-P01$I	204	LF		1013	7.89	~~23.25~~ 40.97 BG 4/12/24	
P01L	DC-P01!L	204	LF		1015	7.98	~~24~~ 23.35 BG 4/12/24	
P01S	DC-P01#S	204	LF		1018	7.89	29.66	
P02S	DC-P02#S	204	LF		1007	7.28	DB-G025	
P04S	DC-P04#S	204	LF		0945	9.71	DB-G045	
P05D	DC-P05&D	204	LF		0925	5.45	45.61-DT	
P05S	DC-P05%S	204	LF		0930	4.66	DB	
P05L	DC-P05#$L	204	LF		0935	4.85	14.60-DT	
P36D	DC-P36&D	204	LF		1035	10.50	51.36	
P36L	DC-P36!L	204	LF		1033	9.27	DB	
P36S	DC-P36#S	204	LF		1030	9.59	31.42	
P37D	DC-P37&D	204	LF		1103	13.88	43.22-DT	
P37L	DC-P37!L	204	LF		1106	12.72	DB	
P38L	DC-P38!L	204	LF		1128	11.47	19.74	
P38S	DC-P38#S	204	LF		1126	10.96	31.42-DT	
P39D	DC-P39&D	204	LF		1151	11.13	42.64-DT	
P39L	DC-P39!L	204	LF		1155	4.12	15.10-DT	
P39S	DC-P39#S	204	LF		1159	3.79	26.25-DT	
P40L	DC-P40!L	204	LF		1206	4.90	20.36-DT	
P40S	DC-P40#S	204	LF		1209	4.07	35.31-DT	
P41D	DC-P41&D	204	LF		1235	39.20	69.09-DT	
P41L	DC-P41!L	204	LF		1237	3.07	12.01	

BG 4/30/24

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

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

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

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

U:6/19/23 GKJ

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

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

Plant: DC
Event: DC-24Q2 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments + Total Depth	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	4/12/24	1157	12.25	21615533	Y	575.23	Y	H	Dedicated B	BG
BA02	DC-BA02	205	BAB		1129	5.87	21615636		574.38				
BA02L	DC-BA02IL	205	BAB		1149	5.72	21615682		574.35				
BA03	DC-BA03	205	BAB		1115	4.84	21615637		573.83				
BA03L	DC-BA03IL	205	BAB		1119	4.38	21615687		573.58				
BA04	DC-BA04	205	BAB		1108	4.15	21615631		574.28				
BA05	DC-BA05#	205	BAB		1219	15.12	21615540		580.71				
BA06	DC-BA06	205	BAB		1214	19.60	21615525		576.33				
G02S	DC-G02#S	204	LF		1007	7.28	21615554		614.59				
G50S	DC-G50#S	203	GMF		1039	11.31	21615535		612.51				
G51S	DC-G51#S	203	GMF		1035	9.06	21615691		608.58			—	
G54L	DC-G54IL	203	GMF		0932	22.38	21615690		600.53			40.15-No Pump	BG
G54S	DC-G54#S	203	GMF		0940	23.56	21615684		599.73			Dedicated B	
G57S	DC-G57#S	203	GMF		1248	18.36	21615683		604.27				
G60L	DC-G60IL	203	GMF		1225	8.12	21615678		607.14				
G60S	DC-G60#S	203	GMF		1221	21.83	21615677		593.15				
G64L	DC-G64IL	203	GMF		1126	19.74	21615688		602.66				
G64S	DC-G64#S	203	GMF	—	1120	21.76	21615632	—	601.39	—	—	—	—

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads
All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.
Transducer data on SAR-4 form may be collected at anytime during the sampling event.
Plant: DC
Event: DC-24Q2 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)	+Total Depth	
OM01	DC-OM01	201-202	AP1/2	4/12/24	1246	8.86	21615685	Y	586.40	Y	H	27.62 - Dedicated Tubing	BG
OM04S	DC-OM04#S	201-202	AP1/2	"	0957	17.49	21615542	Y	589.72	Y	H	35.85	"
OM07	DC-OM07	201-202	AP1/2	"	1057	12.13	21615541	N/A	N/A	N/A	N/A	29.97	"
OM12	DC-OM12	201-202	AP1/2	"	1214	15.32	21615527	N/A	N/A	N/A	N/A	43.01	"
OM16	DC-OM16	201-202	AP1/2	"	1014	27.49	21615539	Y	580.36	Y	H	43.67	"
OM17	DC-OM17	201-202	AP1/2	"	1001	10.56	21615693	"	581.20	"	"	17.25	"
OM21	DC-OM21	201-202	AP1/2	"	1013	8.70	21615593	"	597.67	"	"	60.49	"
OM22D	DC-OM22&D	201-202	AP1/2	"	1254	16.83	21615592	"	582.27	"	"	65.17	"
OM23D	DC-OM23&D	201-202	AP1/2	"	1305	37.70	21615591	"	575.58	"	"	82.95	"
OM24D	DC-OM24&D	201-202	AP1/2	"	1333	2.46	21615522	"	574.50	"	"	20.14	"
OM25S	DC-OM25#S	201-202	AP1/2	"	1325	58.09	21615681	"	570.91	"	"	64.03	"
OR02	DC-OR02	201-202	AP1/2	"	1254	4.43	21615679	"	596.87	"	"	22.52 - Soft Bottom	"
OR03D	DC-OR03&D	201-202	AP1/2	"	1303	44.88	21615577	"	583.02	"	"	77.75	"
OR04D	DC-OR04&D	201-202	AP1/2	"	0938	20.07	21615570	"	587.59	"	"	68.07	"
OR06A	DC-OR06!A	201-202	AP1/2	"	1050	12.64	21615692	"	582.77	"	"	26.05	"
OR11	DC-OR11	201-202	AP1/2	"	1029	29.68	21615686	"	566.56	"	"	40.57	"
OR13S	DC-OR13#S	201-202	AP1/2	"	1230	11.43	21615676	"	591.10	"	"	29.53	"
OR13D	DC-OR13&D	201-202	AP1/2	—	1234	12.15	21564135	—	590.39	—	—	50.17	—

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

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

Plant: DC
Event: DC-24Q2 Rev 0

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data						
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)	Comments + Total Depth	Initials
OR14D	DC-OR14&D	201-202	AP1/2	4/12/24	1022	8.80	21615611	Y	590.35	Y	H	48.73	BG
OR19	DC-OR19	201-202	AP1/2	"	1223	20.93	21615634	"	576.87	"	"	54.92	"
OR20	DC-OR20	201-202	AP1/2	"	1044	20.44	21615610	"	567.07	"	"	57.34	"

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

Duck Creek

WELL/SAMPLE POINT BA06 **Purge Method:** low flow / bladder

Date: 4/16/2024 Start Time: 1313 Finish/Sample Time: 1432

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

Depth to Water From MP: 19.60 ft Total Purge Volume: 1600 mL

Water Column Length: _____ ft

Well Water Volume: _____ L Total Drawdown: 3.53 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	1325	20.60	100	6.68	3280	16.82	24	2.20	0.0
2	1328	21.11	100	6.67	3290	16.80	18	2.15	0.0
3	1331	21.45	100	6.65	3310	16.73	11	2.04	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(4)

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

Final DTW: 23.13 ft

Comments **Check pH if reading is below 6.9 or above 7.7** Second pH check was 6.62 - Checked with AQ600 9G 4/17/24

Sampler's Signature: _____

Duck Creek

WELL/SAMPLE POINT OM01 **Purge Method:** Peristaltic pump

Date: 4/18/24 Start Time: 0941 Finish/Sample Time: 1120

Well Depth (Bottom) From MP: 27.62 ~~27.70~~ ft Min. Purge Volume: — mL

Depth to Water From MP: 9.15 ft Total Purge Volume: 1000 mL

Water Column Length: 18.47 ft

Well Water Volume: 11.19 L Total Drawdown: 11.30 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	0948	10.75	100	6.39	3390	16.86	145.0	1.73	17.26
2	0949	11.00	100	6.39	3394	16.87	135.0	1.69	14.27
3	0951	11.28	100	6.40	3392	16.88	124.8	1.72	16.85
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

5+5 dup

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

Final DTW: 20.45 ft

Comments

Sampler's Signature: [signature]

Duck Creek

WELL/SAMPLE POINT OR02 **Purge Method:** Peristaltic pump

Date: 4/16/24 Start Time: 1427 Finish/Sample Time: 1500

Well Depth (Bottom) From MP: ~~22.11~~ 22.52 ft (30 4/16) Min. Purge Volume: — mL

Depth to Water From MP: 4.57 ft Total Purge Volume: 1200 mL

Water Column Length: 17.95 ft

Well Water Volume: 10.87 L Total Drawdown: 0.15 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	1435	4.65	200	6.57	1844	17.42	-5.7	0.40	158.20
2	1436	4.65	200	6.57	1852	17.38	-6.3	0.35	152.64
3	1437	4.65	200	6.57	1845	17.35	-6.2	0.33	138.53
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 4.72 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR03D **Purge Method:** Portable pump

Date: 4/17/24 Start Time: 1311 Finish/Sample Time: 1352

Well Depth (Bottom) From MP: ~~77.77~~ 77.75 ft Min. Purge Volume: — mL

Depth to Water From MP: 44.79 ft Total Purge Volume: 2000 mL

Water Column Length: 32.96 ft

Well Water Volume: 19.96 L Total Drawdown: 0.16 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	1325	44.95	200	6.46	4999	19.01	-20.3	0.58	3918
2	1326	44.95	200	6.46	5056	18.99	-20.2	0.57	3646
3	1327	44.95	200	6.46	5100	18.97	-20.1	0.53	3518
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaprall 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☑ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 44.95 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR03D **Purge Method:** Portable Pump

Date: 4/30/2024 Start Time: 1031 Finish/Sample Time: 1059

Well Depth (Bottom) From MP: 77.77 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 44.56 ft Total Purge Volume: 1800 mL

Water Column Length: 33.21 ft

Well Water Volume: 20.08 L Total Drawdown: 0.07 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	1048	44.63	200	7.41	9070	20.11	68	5.72	71000
2	1050	44.63	200	7.43	9160	20.14	69	5.68	71000
3	1052	44.63	200	7.42	9290	20.20	71	5.61	71000
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 500mL, H2SO4)
	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
	General (P, 1000 mL)
	Ammonia (P,250 mL, H2SO4)
	Rad (P, 2.5L, HNO3)

1

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

Final DTW: 44.63 ft

Comments Equipment Blank 3 filled here

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR04D **Purge Method:** Portable pump

Date: 4/17/24 Start Time: 1200 Finish/Sample Time: 1300

Well Depth (Bottom) From MP: ~~67.98~~ 68.07 ft 3D 4/17 Min. Purge Volume: — mL

Depth to Water From MP: 20.08 ft Total Purge Volume: 1600 mL

Water Column Length: 47.99 ft

Well Water Volume: 29.06 L Total Drawdown: 0.03 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	1217	20.11	200	6.47	4519	21.77	-54.7	3.85	511
2	1218	20.11	200	6.45	4696	21.76	-38.0	3.78	475
3	1219	20.11	200	6.44	4823	21.75	-30.6	3.71	402
4	1220	20.11	200	6.44	4950	21.76	-26.5	3.65	469
5	1221	20.11	200	6.44	5004	21.75	-23.6	3.61	474
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 20.11 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM04S **Purge Method:** Peristaltic pump

Date: 4/16/24 Start Time: 1310 Finish/Sample Time: 1412

Well Depth (Bottom) From MP: 35.85 ft Min. Purge Volume: — mL

Depth to Water From MP: 17.17 ft Total Purge Volume: 1100 mL

Water Column Length: 18.68 ft

Well Water Volume: 11.31 L Total Drawdown: 9.09 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1318	18.48	100	6.55	1161	19.57	-30.5	0.52	5.90
2	1319	18.60	100	6.55	1152	19.55	-27.0	0.49	5.84
3	1321	18.95	100	6.58	1123	19.53	-15.9	0.51	6.12
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 26.26 ft

Comments Installed dedicated peristaltic tubing

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR06A **Purge Method:** Peristaltic pump

Date: 4/16/24 Start Time: 1130 Finish/Sample Time: 1205

Well Depth (Bottom) From MP: ~~25.65~~ 26.05 SD 4/16 ft Min. Purge Volume: — mL

Depth to Water From MP: 12.46 ft Total Purge Volume: 1200 mL

Water Column Length: 13.59 ft

Well Water Volume: 8.23 L Total Drawdown: 0.02 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1139	12.48	200	6.59	3277	17.85	-35.1	0.65	63.28
2	1140	12.48	200	6.60	3217	17.82	-36.2	0.61	75.19
3	1141	12.48	200	6.61	~~31.78~~	17.80		0.58	83.41
4					3178 SD 4-16				
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☑ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 12.48 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM07 **Purge Method:** Peristaltic pump

Date: 4/18/24 Start Time: 1228 Finish/Sample Time: 1302

Well Depth (Bottom) From MP: 29.97 ~~29.92~~ ft Min. Purge Volume: — mL

Depth to Water From MP: 12.11 ft Total Purge Volume: 1100 mL

Water Column Length: 17.86 ft

Well Water Volume: 10.82 L Total Drawdown: 0.17 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	1235	12.22	200	6.83	1149	17.15	73.5	0.72	3.88
2	1236	12.23	200	6.83	1148	17.14	73.8	0.69	3.42
3	1237	12.23	200	6.83	1149	17.13	74.1	0.65	1.87
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaread 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 12.28 ft

Comments Installed peristaltic tubing

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR11 **Purge Method:** Peristaltic pump

Date: 4/15/24 Start Time: 1335 Finish/Sample Time: 1444

Well Depth (Bottom) From MP: ~~43.85~~ 40.57 ft 4/15 30 Min. Purge Volume: ~ mL

Depth to Water From MP: 29.87 ft Total Purge Volume: 1000 mL

Water Column Length: 10.70 ft

Well Water Volume: 6.48 L Total Drawdown: 0.06 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	1348	29.93	200	6.82	1166	17.90	-68.6	0.73	11.58
2	~~1345~~ 1349	29.93	200	6.79	1178	17.88	-55.5	0.69	7.91
3	1350	29.93	200	6.78	1173	17.86	-50.2	0.65	9.96
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaread 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1+1 dup	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1+1 dup	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1+1 dup	Rad (P, 2.5L, HNO3)

5+5 dup

10

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

Final DTW: 29.93 ft

Comments Installed dedicated peristaltic tubing

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM12 **Purge Method:** Peristaltic pump

Date: 7/16/24 Start Time: 1033 Finish/Sample Time: 1120

Well Depth (Bottom) From MP: ~~43.19~~ 43.01 ft 30 4/16 Min. Purge Volume: — mL

Depth to Water From MP: 15.20 ft Total Purge Volume: 1000 mL

Water Column Length: 27.81 ft

Well Water Volume: 16.84 L Total Drawdown: 0.23 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	1041	15.43	200	6.43	2008	18.25	-60.4	0.54	13.01
2	1042	15.43	200	6.44	2012	18.27	-60.9	0.50	14.36
3	1043	15.43	200	6.44	2011	18.26	-60.3	0.4	13.44
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquaroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 15.43 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR13D **Purge Method:** Peristaltic pump

Date: 4/18/24 Start Time: 1313 Finish/Sample Time: 1349

Well Depth (Bottom) From MP: ~~50.29~~ 50.17 ft Min. Purge Volume: — mL

Depth to Water From MP: 12.23 ft Total Purge Volume: 1300 mL

Water Column Length: 37.94 ft

Well Water Volume: 22.98 L Total Drawdown: _____ ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1320	12.28	200	6.78	1702	16.87	-17.0	0.59	27.44
2	1321	12.28	200	6.78	1703	16.85	-17.1	0.55	26.28
3	1322	12.28	200	6.78	1706	16.83	-17.4	0.53	28.70
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: _____ ft

Comments Installed peristaltic tubing

Sampler's Signature: [signature]

Duck Creek

WELL/SAMPLE POINT OR13S **Purge Method:** Peristaltic pump

Date: 4/18/24 Start Time: 1351 Finish/Sample Time: 1435

Well Depth (Bottom) From MP: 29.53 ~~29.56~~ ft Min. Purge Volume: – mL

Depth to Water From MP: 11.68 ft Total Purge Volume: 1300 mL

Water Column Length: 17.85 ft

Well Water Volume: 10.81 L Total Drawdown: 0.03 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	1407	11.71	200	6.70	1985	15.88	-29.8	0.74	18.94
2	1408	11.71	200	6.68	1993	15.86	-30.3	0.73	14.41
3	1409	11.71	200	6.68	2003	15.84	-31.0	0.72	13.15
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L HNO3)

(5)

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

Final DTW: 11.71 ft

Comments Installed peristaltic tubing

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR14D **Purge Method:** Peristaltic pump

Date: 4/16/24 Start Time: 1211 Finish/Sample Time: 1258

Well Depth (Bottom) From MP: ~~48.78~~ 48.73 ft (30 4/16) Min. Purge Volume: — mL

Depth to Water From MP: 8.65 ft Total Purge Volume: 1500 mL

Water Column Length: 40.08 ft

Well Water Volume: 24.27 L Total Drawdown: 0.15 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	1229	8.78	200	6.93	2148	19.10	62.6	2.50	7.03
2	1231	8.78	200	6.54	2808	18.63	-0.3	0.57	5.00
3	1232	8.78	200	6.54	(30 4/16) ~~1212~~ 2818	18.61	-1.1	0.48	5.31
4	1233	8.78	200	6.53	2817	1860	-1.5	0.43	8.05
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 8.80 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM16 **Purge Method:** Peristaltic pump

Date: 4/15/24 Start Time: 1115 Finish/Sample Time: 1217

Well Depth (Bottom) From MP: 43.67 ft Min. Purge Volume: — mL

Depth to Water From MP: 27.44 ft Total Purge Volume: 1000 mL

Water Column Length: 16.23 ft

Well Water Volume: 9.83 L Total Drawdown: 1.49 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	1122	28.34	100	6.35	4126	17.99	306.2	0.00	278
2	1124	28.39	100	6.36	4111	17.91	309.9	0.03	81.00
3	1126	28.44	100	6.36	4090	17.90	315.2	0.29	77.13
4	1127	28.49	100	6.36	4101	17.88	320.3	0.33	75.25
5	1129	28.55	100	6.36	4105	17.87	322.1	0.35	71.81
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	50 4115 +	/
Well has weep holes		/

BOTTLE INFORMATION:

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

(4)

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

Final DTW: 28.93 ft

Comments Installed dedicated peristaltic tubing
Lower pid

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM17 **Purge Method:** Peristaltic pump

Date: 4/15/24 Start Time: 1223 Finish/Sample Time: 1320

Well Depth (Bottom) From MP: 17.25 ft Min. Purge Volume: - mL

Depth to Water From MP: 11.09 ft Total Purge Volume: 800 mL

Water Column Length: 6.16 ft

Well Water Volume: 3.73 L Total Drawdown: 3.77 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	1233	11.60	100	6.64	616	17.54	103.6	1.08	32.49
2	1235	11.72	100	6.62	622	17.48	109.0	1.06	31.47
3	1236	11.85	101	6.62	623	17.42	112.8	0.97	29.06
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

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

Final DTW: 14.86 ft

Comments Installed dedicated peristaltic tubing

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR19 **Purge Method:** Peristaltic pump

Date: 4/16/24 Start Time: 0944 Finish/Sample Time: 1022

Well Depth (Bottom) From MP: ~~55.03~~ 54.92 ft 30 4/16 Min. Purge Volume: — mL

Depth to Water From MP: 20.73 ft Total Purge Volume: 1200 mL

Water Column Length: 34.19 ft

Well Water Volume: 20.71 L Total Drawdown: 0.08 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	0954	20.78	200	6.56	2578	18.50	-19.8	0.54	10.44
2	0955	20.78	200	6.56	2588	18.47	-20.5	0.53	9.64
3	0956	20.78	200	6.57	2605	18.45	-22.1	0.52	9.50
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 20.81 ft

Comments Installed dedicated peristaltic tubing

Sampler's Signature: [signature]

Duck Creek

WELL/SAMPLE POINT OR20 **Purge Method:** Peristaltic pump

Date: 4/15/24 Start Time: 1447 Finish/Sample Time: 1321

Well Depth (Bottom) From MP: ~~57.55~~ 57.34 ft (3D 4/15)

Depth to Water From MP: 20.52 ft

Water Column Length: 36.82 ft

Well Water Volume: 22.30 L

Min. Purge Volume: ~ mL

Total Purge Volume: 1100 mL

Total Drawdown: 0.06 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	~~3D~~ 4/15 mV	mg/L	NTU
1	1454	20.58	200	6.75	2335	19.62	~~0~~ -41.9	0.48	15.67
2	1455	20.58	200	6.75	2340	19.58	-48.4	0.45	14.60
3	1457	20.58	200	6.74	2360	19.60	-47.3	0.43	8.86
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 20.58 ft

Comments Installed dedicated peristaltic tubing

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM21 **Purge Method:** Peristaltic pump

Date: 4/18/24 Start Time: 1439 Finish/Sample Time: 1518

Well Depth (Bottom) From MP: ~~60.55~~ 60.79 ft Min. Purge Volume: — mL

Depth to Water From MP: 8.69 ft Total Purge Volume: 2000 mL

Water Column Length: 51.80 ft

Well Water Volume: 31.37 L Total Drawdown: 0.27 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	1449	8.78	200	7.05	3046	18.71	82.5	0.79	0.69
2	1450	8.78	200	7.04	3062	18.66	84.0	0.75	1.04
3	1451	8.78	200 (3.5 4/18)	~~7.03~~ 6.82	3070	18.55	88.3	0.69	1.48
4	1452	8.79	200	6.80	3087	18.55	93.6	0.58	2.33
5	1453	8.79	200	6.78	3095	18.49	95.3	0.56	3.02
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 8.96 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM22D **Purge Method:** Portable pump

Date: 4/17/24 Start Time: 0955 Finish/Sample Time: 1035

Well Depth (Bottom) From MP: ~~65.19~~ 66.17 ft 3D 4/17

Depth to Water From MP: 16.89 ft

Water Column Length: 48.28 ft

Well Water Volume: 29.24 L

Min. Purge Volume: — mL

Total Purge Volume: 1500 mL

Total Drawdown: 0.07 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	1008	16.93	200	6.55	3975	18.85	14.1	1.08	3747
2	1009	16.94	200	6.55	3965	18.80	11.9	1.05	3647
3	1010	16.95	200	6.55	3932	18.77	11.0	1.02	2822
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☑ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 16.96 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM23D **Purge Method:** Portable pump

Date: 4/17/24 Start Time: 1045 Finish/Sample Time: 1140

Well Depth (Bottom) From MP: ~~82.04~~ 82.95 ft Min. Purge Volume: — mL

Depth to Water From MP: 37.53 ft Total Purge Volume: 1600 mL

Water Column Length: 45.42 ft

Well Water Volume: 27.51 L Total Drawdown: 0.35 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	1102	37.75	200	6.66	1632	18.78	-18.2	1.84	1463
2	1103	37.75	200	6.66	1631	18.75	-17.7	1.82	1431
3	1105	37.75	200	6.66	1632	18.71	-17.1	1.80	1382
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 37.88 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM24D **Purge Method:** Peristaltic pump

Date: 4/15/24 Start Time: 1022 Finish/Sample Time: 1053

Well Depth (Bottom) From MP: ~~20.66~~ 20.14 ft (3D 4/15) Min. Purge Volume: — mL

Depth to Water From MP: 2.61 ft Total Purge Volume: 1000 mL

Water Column Length: 17.53 ft

Well Water Volume: 10.62 L Total Drawdown: 0.04 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1028	2.65	200	6.62	3129	14.95	-18.5	0.55	57.05
2	1029	2.65	200	6.62	3140	14.93	-16.6	0.54	59.18
3	1031	2.65	200	6.62	3123	14.90	-17.8	0.51	61.39
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquarall 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 2.65 ft

Comments Installed dedicated peristaltic tubing.

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM25S **Purge Method:** Portable pump

Date: 4/17/24 Start Time: 1403 Finish/Sample Time: 1445

Well Depth (Bottom) From MP: ~~63.97~~ 64.03 ft Min. Purge Volume: — mL

Depth to Water From MP: 58.12 ft Total Purge Volume: 1500 mL

Water Column Length: 5.91 ft SD 4/17

Well Water Volume: 3.58 L Total Drawdown: ~~58.12~~ ft 0.00'

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	1415	Below pump	200	6.53	3445	20.52	-11.6	1.11	3318
2	1416	Below pump	200	6.53	3418	20.50	-10.8	1.09	3358
3	1418	Below pump	200	6.53	3354	20.53	-8.3	1.05	3682
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☐ None ☑ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☑ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(5)

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

Final DTW: 58.12 ft

Comments DTW Below top of pump 55.30'

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:		Environment:	grass, dirt
Multiparameter Water Meter	Make: Hurriba	Model: U5000	Serial Number: PW26YJD3
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: TQFF211142HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.25	s.u.	±0.1 s.u.	P	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1956	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	214	mV	±15 mV	P	yes	234	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#D00228049	8/26/2025
DO (Saturated)	136.8	%	97-100%	P	yes	99.8	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

234 @ 21°C

ICV (Initial Calibration Verification)					Time: 1004			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.95	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	968	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1515				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#D00228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/15/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD	Location:	Duck Creek
Weather:	67°-80°F sunny wind NE 8-15mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	846000	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	19FF2202131ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.24	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.27	s.u.	±0.1 s.u.	F	Y	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.38	s.u.	±0.1 s.u.	F	Y	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	6.44	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2002.8	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	228.1	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.86	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0957

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	989.38	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1545

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	951.33	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.71	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	63°-79° 9mph Wind NE Sunny	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Heson	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	NO		MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P			InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.8%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	4/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	71°-80°F mostly cloudy Wind SE 16mph	Environment:	grass woods
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW2GY5D3
Water Level Meter	Make: Heron	Model: Dipper	Serial Number: 19FF2111A2HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10,	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	12	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	235	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.8	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

235 @ 20c

ICV (Initial Calibration Verification) Time: 0944

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.13	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1617

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	989	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/16/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	80-61° cloudy/Rain wind 22mph S	Environment:	landfill

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	YL9K59HA	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	11FF220930 5ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	7.18	s.u.	±0.1 s.u.	F	Y	7.02	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	N		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1920	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	245	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0934

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	7.03	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	982	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1312

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	990	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin M Date: 16-Apr-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	67°-78° 14 mph wind SE cloudy	Environment:	grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTR4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	ND	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	237	mV	±15 mV	P			InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.2%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:00

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.04	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.01	s.u.	±0.15 s.u.	P		Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 11:21

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

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

Comments:

Signature: Andy Wetuski Date: 4/10/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	59°-67°F cloudy wind SW 19mph	Environment:	grass, dirt
Multiparameter Water Meter	Make: Hori:ba	Model: U5000	Serial Number: PW2GFJ03
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	3.99	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.009	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

237 @ 19°C

ICV (Initial Calibration Verification) Time: 0956

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.93	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	994	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1548

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.009	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/17/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	62-67°F cloudy wind WSW 21 47 mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 846000		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF220305ML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.95	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	3.37	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1976.0	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	228.1	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.25	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.81	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0922

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.88	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	962.62	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1530

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	958.19	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.33	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	4/17/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	67°-54° windy wind 19mph W	Environment:	Landfill

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	YL9KT9HA	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	N	—	MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N	—	MSI	022361-01	12/27/2024
SC Zero (DI)	130	µS/cm	0<25 µS/cm	P	Y	0.0	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1820	µS/cm	±5%	P	Y	2000	Geotech	3GF1197	Jun-24
ORP	221	mV	±15 mV	P	N	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.1	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0910			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	7.32	s.u.	±0.15 s.u.	F	Y 7.01	Geotech	2GF113	Jun-24
pH 10.00b	10.58	s.u.	±0.15 s.u.	F	Y 10.00	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1533			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.			—	MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.			—	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%			—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L			—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	Austin AM	Date:	17-Apr-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	57°-67° 8mph E windy	Environment:	Grassy, gravel

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	240	mV	±15 mV	P	NO		InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	99.7%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 9:04			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.02	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1500			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1018	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	Andy Wittstock	Date:	4/18/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remberton	Location:	Duck creek
Weather:	58°-67° Cloudy Wind NE 8-9mph	Environment:	grass, gravel
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW2GYJ03
Water Level Meter	Make: Solinst	Model: 101	Serial Number: 33450

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	245	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	97.8	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

2.42 @ 15°C

ICV (Initial Calibration Verification) Time: 0936

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1547

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1086	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/18/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	57-64°F cloudy, wind ENE 10-16 mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	846000	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11F2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	7.35	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1990.8	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	235.8	mV	±15 mV				InSitu	3Gi1011	Jun-24
DO (Zero pt)	0.06	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.30	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.05	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0925

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.94	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	981.3	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1535

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	963.8	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.51	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/18/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	51°-65°F Sunny wind 5w 8mph	Environment:	grass, dirt
Multiparameter Water Meter	Make: AT	Model: 600	Serial Number: 846000
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 11FT-220q 305 ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	19.70	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2029.1	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	231.0	mV	±15 mV	P	NO	—	inSitu	3GI1011	Jun-24
DO (Zero pt)	0.04	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.20	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

233 @ 22°C

ICV (Initial Calibration Verification)					Time: 0918			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	955.48	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1536				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a	6.96	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	956.7	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/22/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	50°-65° Sunny 8mph Wind SW	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTKHXG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	NO	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	NO	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	NO	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	NO	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	NO	NO	Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO	NO	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	NO	Macron	#000228049	8/26/2025
DO (Saturated)	97.7%	%	97-100%	P	NO	NO	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	NO	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:01

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.07	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.04	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1050	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1530

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1040	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

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

Comments:

Signature: Andy Webster Date: 4/22/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	51°-60° rain w/ SW 10mph	Environment:	grass, gravel, mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: BW2GY3A3
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 14FF220213ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	239	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.04	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification) Time: 0950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1519

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.10	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/23/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	54-59°F cloudy, rainy, wind WNW 12-16 mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	846000	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC Zero (DI)	0.23	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1980.2	µS/cm	±5%	↓	↓	↓	Geotech	3GF1197	Jun-24
ORP	233.8	mV	±15 mV	↓	↓	↓	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.06	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	99.15	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.51	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0942

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.99	s.u.	±0.15 s.u.	↓	↓	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	962.32	µS/cm	±5%	↓	↓	Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1539

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC 1000	962.89	µS/cm	±5%	↓	↓	↓	Ricca	4209A12	Aug-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.33	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan	Location:	Duck Creek
Weather:	50-64°F, Rain, 10mph wind	Environment:	Grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 37177

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	~~3.~~ 7.37	s.u.	±0.1 s.u.	F	Yes	7.07	MSI	023051-02	2/21/2025
pH 10.00a	10.31	s.u.	±0.1 s.u.	F	Yes	10.02	MSI	022361-01	12/27/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1980	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	220	mV	±15 mV	P	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

4/23 JB

ICV (Initial Calibration Verification)

Time: 0945

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.91	s.u.	±0.15 s.u.	P	Cal: 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1345

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC 1000	1007	µS/cm	±5%	↓	↓	↓	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: JBohannan

Date: 04/23/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AM, JB	Location:	Duck Creek
Weather:	44-62°F, Sunny, 10mph wind	Environment:	Grass, Mud

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

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.46	s.u.	±0.1 s.u.	F	Yes	4.02	MSI	023067-01	3/14/2025
pH 7.00a	7.35	s.u.	±0.1 s.u.	F	Yes	7.02	MSI	023051-02	2/21/2025
pH 10.00a	10.42	s.u.	±0.1 s.u.	F	Yes	10.02	MSI	022361-01	12/27/2024
SC Zero (DI)	0.000	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	N/A	Geotech	3GF1197	Jun-24
ORP	225	mV	±15 mV	P	No	N/A	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0908			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.83	s.u.	±0.15 s.u.	F	Calibrated: 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	None	Geotech	2GF113	Jun-24
pH 10.00b	10.16	s.u.	±0.15 s.u.	F	Calibrated: 9.99	Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1437				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	↓	↓	↓	MSI	022361-01	12/27/2024
SC 1000	1011	µS/cm	±5%	↓	↓	↓	Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature:	JBohannan	Date:	4/24/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	50-60°F partly windy NE 7-15mph	Environment:	grass
Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number: 846000
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	4,02	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10,04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0,06	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2035.4	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	238.5	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0,08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99,81	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0,00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0920

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4,01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9,98	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	994.98	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1415

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4,00	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9,99	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	976,06	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0,07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1,20	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron, Pat McMahon	Location:	Duck creek
Weather:	51°-61°F Sunny Wind NE 9mph	Environment:	grass, mud

Multiparameter Water Meter	Make: Horiba	Model: U50	Serial Number:	PW26Y5D3	
Water Level Meter	Make: Heron	Model: Dipper	Serial Number:	19FK211192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC Zero (DI)	16	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO	—	Geotech	3GF1197	Jun-24
ORP	244	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

2nd @ 15°C

ICV (Initial Calibration Verification) Time: 950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.88	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.09	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1500

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.16	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1020	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/24/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	49°-61° 10 mph wind NE	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO		Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO		InSitu	3GI1011	Jun-24
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	98.1%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:06

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	NO	Geotech	3GB1049	Feb-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NO	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 14:07

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO		MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO		MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%	P	NO		Ricca	4209A12	Aug-24
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD. AP	Location:	Duck Creek
Weather:	50-59°F p. sunny wind ESE 9-16 mph	Environment:	grass
Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number: 846000
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202 131 ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N.	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	9.34	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1925.5	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	246.1	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.72	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0925			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	963.35	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1402			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N.	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	981.08	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.81	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/25/25

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Amberson	Location:	Duck Creek
Weather:	60° - 78°F sunny wind 5 mph	Environment:	grass, mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PWLGYJD3
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF2111A2HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NC	—	MSI	023067-01	3/14/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NC	—	MSI	023051-02	2/21/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	NC	—	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	yes	0.0	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1770	µS/cm	±5%	P	yes	2.000	Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV	P	NO	—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#D00228049	8/26/2025
DO (Saturated)	87.4	%	97-100%	P	yes	98.9	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)					Time: 0950			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	—	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	956	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
pH 7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#D00228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments: Unable to do end day cal due to screen on Horiba breaking at last well

Signature: [signature] Date: 4/30/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AP AM	Location:	Duck Creek
Weather:	78-79 sunny wind 7mph S	Environment:	Grass, mud
Multiparameter Water Meter	Make: AT	Model: 600	Serial Number: 8t6000
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.			—	MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.			—	MSI	022361-01	12/27/2024
SC Zero (DI)	31.56	µS/cm	0<25 µS/cm	F	Y	0.05	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040.5	µS/cm	±5%	P	N	—	Geotech	3GF1197	Jun-24
ORP		mV	±15 mV			—	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1			—	Macron	#000228049	8/26/2025
DO (Saturated)	99.85	%	97-100%			—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.03	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1015

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Geotech	3GB1049	Feb-25
pH 7.00b	6.79	s.u.	±0.15 s.u.	F	Y 7.00	Geotech	2GF113	Jun-24
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	1002.7	µS/cm	±5%	P	—	Ricca	4209A12	Aug-24

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1448

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023051-02	2/21/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	—	MSI	022361-01	12/27/2024
SC 1000	1015.8	µS/cm	±5%	P	NO	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.04	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 4/30/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek, Indian Creek
Weather:	66°F p.cloudy wind ESE 9 mph	Environment:	grass, weeds
Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number: 739449
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.11	s.u.	±0.1 s.u.	F	Y	7.02	MSI	023051-02	2/21/2025
pH 10.00a	9.95	s.u.	±0.1 s.u.	P	N	NA	MSI	022361-01	12/27/2024
SC Zero (DI)	0.06	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1971	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	238.3	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.18	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	985	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1500

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1004.5	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.57	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 5/6/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JO, JB	Location:	Duck Creek, ICL
Weather:	77°F cloudy, wind SE 9-16 mph	Environment:	grass

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	739449	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	14.27	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1973.9	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	230.4	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.79	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1059			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.92	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1018.9	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1440			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	No	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	995.86	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.11	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: [signature] Date: 5/18/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	73°F partly cloudy Wind NW 15mph	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WV683C85	
Water Level Meter	Make: Solinst	Model: 101	Serial Number:	334509	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO	–	Geotech	3GF1197	Jun-24
ORP	240	mV	±15 mV	P	NO	–	InSitu	3GI1011	Jun-24
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

236 @20°C

ICV (Initial Calibration Verification)					Time: 1416			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	–	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	–	Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	997	µS/cm	±5%	P	–	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

Comments: Only one well sampled no end day calibration needed

Signature: [signature] Date: 5/28/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannon	Location:	Duck Creek
Weather:	77°, Sunny, 12mph wind	Environment:	Tall Grass

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG		
Water Level Meter	Make:	Model:	Serial Number:		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00s	3.92	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00s	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00s	10.04	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2091	µS/cm	±5%				Geotech	3GJ1438 ~~3GP0197~~	Oct ~~Jun-24~~
ORP	232	mV	±15 mV				InSitu	3GI1011	Jun-24
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

BG 6/14/24

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0930

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.85	s.u.	±0.15 s.u.	P	Calibrated: 4.00	Geotech	3GB1049	Feb-25
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	None	Proactive ~~Geotech~~	3GE1252 ~~208468~~	May-25 ~~Jun-24~~
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1013	µS/cm	±5%	P	None	Ricca	4209A12	Aug-24

BG 6/14/24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1058

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00s	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00s	6.98	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00s	9.97	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1008	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

Comments:

Signature: JBohannon Date: 6/13/2024

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

June 24, 2024

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

Dear Daryl Johnson:

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

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

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

Sincerely,

Diane Billings
Project Manager

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

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HD02825

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

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Work Order HD03070

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

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Work Order HD03383

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

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Work Order HD03621

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

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Work Order HD03934

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

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Work Order HD04162

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

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Peoria, IL 61615
(800)752-6651

Work Order HD04441

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

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Work Order HD04652

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

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Work Order HE04754

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

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(800)752-6651

ANALYTICAL RESULTS

Sample: HD02825-01 **Sampled:** 04/15/24 12:17
Name: OM16 **Received:** 04/15/24 16:52
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.16	pCi/L			1	0.576	04/29/24 22:03	PACE	904.0 903.0

Sample: HD02825-02 **Sampled:** 04/15/24 13:20
Name: OM17 **Received:** 04/15/24 16:52
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.17	pCi/L			1	0.626	04/29/24 22:03	PACE	904.0 903.0

Sample: HD02825-03 **Sampled:** 04/15/24 10:53
Name: OM24D **Received:** 04/15/24 16:52
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.21	pCi/L			1	0.62	04/29/24 22:03	PACE	904.0 903.0

Sample: HD02825-04 **Sampled:** 04/15/24 14:44
Name: OR11 **Received:** 04/15/24 16:52
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.26	pCi/L			1	0.556	04/29/24 22:03	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD02825-05 **Sampled:** 04/15/24 14:44
Name: OR11 Dup **Received:** 04/15/24 16:52
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.31	pCi/L			1	0.623	04/29/24 22:03	PACE	904.0 903.0

Sample: HD02825-06 **Sampled:** 04/15/24 13:21
Name: OR20 **Received:** 04/15/24 16:52
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.57	pCi/L			1	0.533	04/29/24 22:03	PACE	904.0 903.0

Sample: HD03070-01 **Sampled:** 04/16/24 12:57
Name: BA01 **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.19	pCi/L			1	0.571	04/29/24 22:03	PACE	904.0 903.0

Sample: HD03070-02 **Sampled:** 04/16/24 12:57
Name: BA01 Dup **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.953	pCi/L			1	0.588	04/29/24 22:03	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03070-03 **Sampled:** 04/16/24 11:30
Name: BA02 **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.18	pCi/L			1	0.669	04/29/24 22:03	PACE	904.0 903.0

Sample: HD03070-04 **Sampled:** 04/16/24 14:32
Name: BA06 **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.77	pCi/L			1	0.622	04/29/24 22:03	PACE	904.0 903.0

Sample: HD03070-05 **Sampled:** 04/16/24 15:00
Name: OR02 **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.582	pCi/L			1	0.541	04/29/24 22:03	PACE	904.0 903.0

Sample: HD03070-06 **Sampled:** 04/16/24 14:12
Name: OM04S **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.72	pCi/L			1	0.656	05/01/24 21:48	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03070-07 **Sampled:** 04/16/24 11:20
Name: OM12 **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.51	pCi/L			1	0.644	05/01/24 21:48	PACE	904.0 903.0

Sample: HD03070-08 **Sampled:** 04/16/24 12:05
Name: OR06A **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.845	pCi/L			1	0.692	05/01/24 21:48	PACE	904.0 903.0

Sample: HD03070-09 **Sampled:** 04/16/24 12:58
Name: OR14D **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.639	pCi/L			1	0.551	05/01/24 21:48	PACE	904.0 903.0

Sample: HD03070-10 **Sampled:** 04/16/24 10:22
Name: OR19 **Received:** 04/16/24 16:09
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.629	pCi/L			1	0.484	05/01/24 21:48	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03383-01 **Sampled:** 04/17/24 15:20
Name: G51S **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.76	pCi/L			1	1.19	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03383-02 **Sampled:** 04/17/24 12:33
Name: G62L **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.13	pCi/L			1	1.19	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03383-03 **Sampled:** 04/17/24 10:35
Name: OM22D **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.08 J	pCi/L			1	1.39	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03383-04 **Sampled:** 04/17/24 11:40
Name: OM23D **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.74	pCi/L			1	1.32	05/07/24 21:01	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03383-05 **Sampled:** 04/17/24 14:45
Name: OM25S **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.89	pCi/L			1	1.06	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03383-06 **Sampled:** 04/17/24 13:52
Name: OR03D **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.78	pCi/L			1	0.973	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03383-07 **Sampled:** 04/17/24 13:00
Name: OR04D **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.849 J	pCi/L			1	1.32	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03383-08 **Sampled:** 04/17/24 14:44
Name: R61L **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.914	pCi/L			1	0.392	05/07/24 21:01	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03383-09 **Sampled:** 04/17/24 15:48
Name: EB 1 **Received:** 04/17/24 16:43
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.445 J	pCi/L			1	0.513	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-01 **Sampled:** 04/18/24 12:20
Name: BA02L **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.690 J	pCi/L			1	0.782	05/06/24 21:59	PACE	904.0 903.0

Sample: HD03621-02 **Sampled:** 04/18/24 12:44
Name: BA03 **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.694	pCi/L			1	0.511	05/03/24 21:15	PACE	904.0 903.0

Sample: HD03621-03 **Sampled:** 04/18/24 14:01
Name: BA03L **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.594	pCi/L			1	0.562	05/03/24 21:15	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03621-04 **Sampled:** 04/18/24 15:08
Name: BA04 **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.856 J	pCi/L			1	1.74	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-05 **Sampled:** 04/18/24 11:33
Name: BA05 **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.607 J	pCi/L			1	0.788	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-06 **Sampled:** 04/18/24 11:20
Name: OM01 **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.269 U	pCi/L			1	1.12	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-07 **Sampled:** 04/18/24 11:20
Name: OMO1 Dup **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0437 U	pCi/L			1	1.1	05/07/24 21:01	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03621-08 **Sampled:** 04/18/24 13:02
Name: OM07 **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.813 J	pCi/L			1	0.832	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-09 **Sampled:** 04/18/24 13:49
Name: OR13D **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.48	pCi/L			1	0.461	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-10 **Sampled:** 04/18/24 14:35
Name: OR13S **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.461	pCi/L			1	0.43	05/07/24 21:01	PACE	904.0 903.0

Sample: HD03621-11 **Sampled:** 04/18/24 15:18
Name: OM21 **Received:** 04/18/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.305 U	pCi/L			1	0.743	05/07/24 21:01	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD03934-01 **Sampled:** 04/22/24 15:23
Name: G02S **Received:** 04/22/24 16:42
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.884	pCi/L			1	0.579	05/09/24 17:07	PACE	904.0 903.0

Sample: HD03934-02 **Sampled:** 04/22/24 14:55
Name: G64L **Received:** 04/22/24 16:42
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.36	pCi/L			1	0.7	05/09/24 17:07	PACE	904.0 903.0

Sample: HD04162-01 **Sampled:** 04/23/24 12:35
Name: G50S **Received:** 04/23/24 16:42
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.728	pCi/L			1	0.573	05/10/24 18:58	PACE	904.0 903.0

Sample: HD04162-02 **Sampled:** 04/23/24 11:55
Name: G54L **Received:** 04/23/24 16:42
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.317 J	pCi/L			1	0.533	05/10/24 18:58	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD04441-01 **Sampled:** 04/24/24 11:49
Name: G54S **Received:** 04/24/24 16:53
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0724 U	pCi/L			1	0.662	05/10/24 18:58	PACE	904.0 903.0

Sample: HD04441-02 **Sampled:** 04/24/24 13:00
Name: G57S **Received:** 04/24/24 16:53
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.192 U	pCi/L			1	0.55	05/10/24 18:58	PACE	904.0 903.0

Sample: HD04441-03 **Sampled:** 04/24/24 12:50
Name: G61S **Received:** 04/24/24 16:53
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.433 J	pCi/L			1	0.909	05/10/24 18:58	PACE	904.0 903.0

Sample: HD04441-04 **Sampled:** 04/24/24 11:30
Name: G64S **Received:** 04/24/24 16:53
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.209 J	pCi/L			1	0.561	05/10/24 18:58	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD04441-05 **Sampled:** 04/24/24 11:40
Name: G60L **Received:** 04/24/24 16:53
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.196 U	pCi/L			1	0.798	05/10/24 18:58	PACE	904.0 903.0

Sample: HD04441-06 **Sampled:** 04/24/24 13:20
Name: G60S **Received:** 04/24/24 16:53
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.574 J	pCi/L			1	0.713	05/10/24 18:58	PACE	904.0 903.0

Sample: HD04652-01 **Sampled:** 04/25/24 10:40
Name: OM26 **Received:** 04/25/24 15:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.09	pCi/L			1	0.622	05/13/24 16:40	PACE	904.0 903.0

Sample: HD04652-02 **Sampled:** 04/25/24 12:53
Name: OM27 **Received:** 04/25/24 15:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.01	pCi/L			1	0.737	05/13/24 16:40	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HD04652-03 **Sampled:** 04/25/24 13:35
Name: OM28 **Received:** 04/25/24 15:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.667	pCi/L			1	0.607	05/13/24 16:40	PACE	904.0 903.0

Sample: HD04652-04 **Sampled:** 04/25/24 14:19
Name: EB 2 **Received:** 04/25/24 15:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.000 U	pCi/L			1	0.626	05/13/24 16:40	PACE	904.0 903.0

Sample: HE04754-01 **Sampled:** 05/28/24 15:09
Name: P60 **Received:** 05/28/24 14:03
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.433 J	pCi/L			1	0.637	06/18/24 22:32	PACE	904.0 903.0

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

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NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

Certified by: Diane Billings, Project Manager

ANALYTICAL REPORT

May 08, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1727061
Samples Received:	04/18/2024
Project Number:	HD02825
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

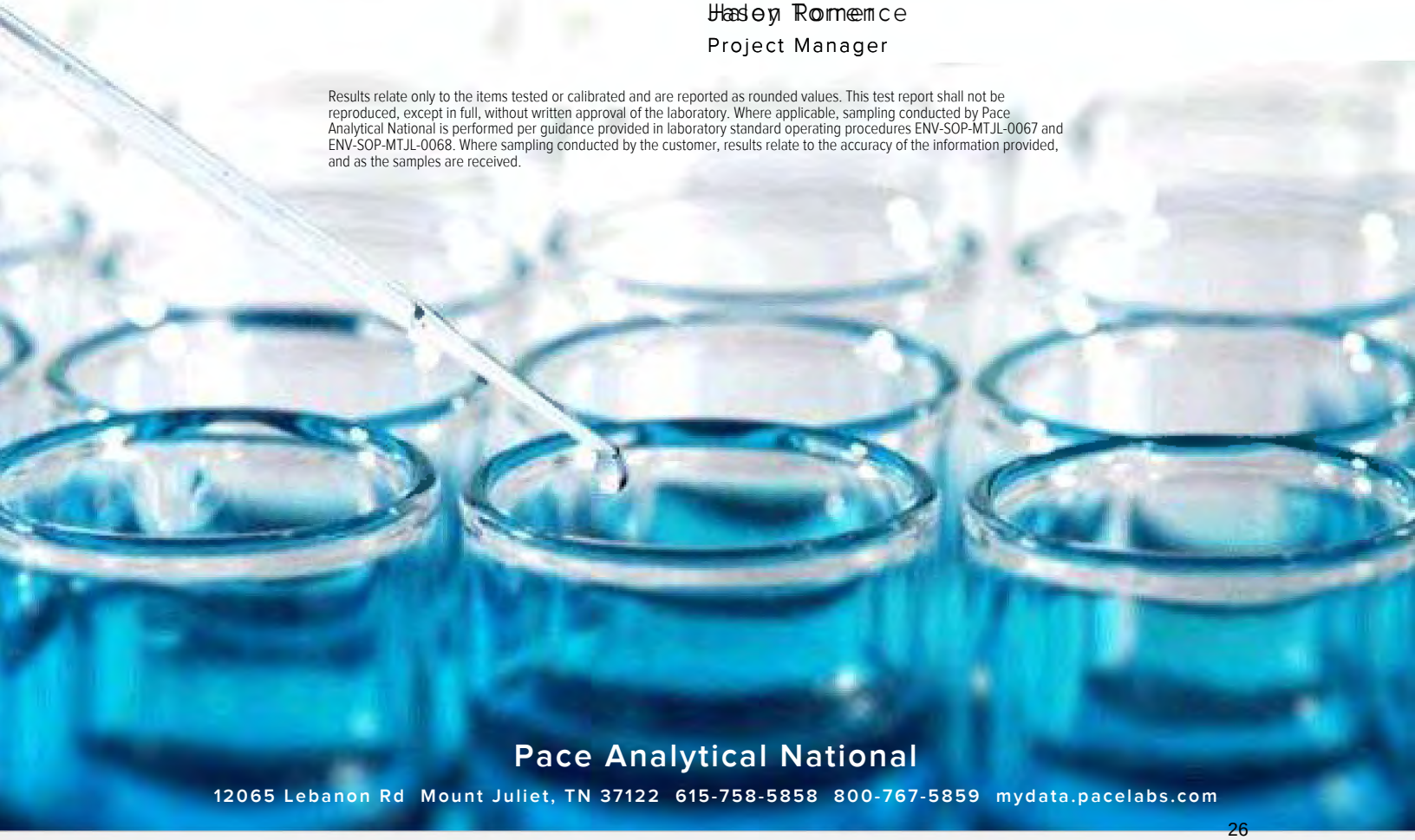


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SAMPLE SUMMARY

HD02825-01 L1727061-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/15/24 12:17	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD02825-02 L1727061-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/15/24 13:20	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD02825-03 L1727061-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/15/24 10:53	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD02825-04 L1727061-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/15/24 14:44	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD02825-05 L1727061-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/15/24 14:44	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD02825-06 L1727061-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/15/24 13:21	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Romence
Project Manager

HD02825-04 SAMPLE RESULTS - 01

Collected date/time: 04/15/24 12:17 L1727061

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.13		0.246	0.635	0.409	0.216	04/29/2024 22:03	WG2272999
(T) Barium	*90.8*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*103*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.16		0.334	0.576	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0344	U	0.226	0.0819	0.406	0.268	04/24/2024 22:29	WG2271810
(T) Barium-133	*88.5*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD02825-02 SAMPLE RESULTS - 02

Collected date/time: 04/15/24 13:20 L1727061

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.08		0.252	0.665	0.423	0.223	04/29/2024 22:03	WG2272999
(T) Barium	*92.6*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*94.8*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.17		0.377	0.626	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0903	U	0.280	0.102	0.461	0.299	04/24/2024 22:29	WG2271810
(T) Barium-133	*86.4*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD02825-03 SAMPLE RESULTS - 03

Collected date/time: 04/15/24 10:53 L1727061

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.16		0.285	0.727	0.484	0.253	04/29/2024 22:03	WG2272999
(T) Barium	*97.2*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*95.9*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.21		0.353	0.620	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0478	U	0.209	0.0706	0.387	0.265	04/24/2024 22:29	WG2271810
(T) Barium-133	*80.1*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD02825-04 SAMPLE RESULTS - 04

Collected date/time: 04/15/24 14:44 L1727061

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.02		0.238	0.644	0.400	0.211	04/29/2024 22:03	WG2272999
(T) Barium	*97.5*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*97.9*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.26		0.367	0.556	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.236	J	0.279	0.114	0.386	0.259	04/24/2024 22:29	WG2271810
(T) Barium-133	*89.2*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD02825-05 SAMPLE RESULTS - 05

Collected date/time: 04/15/24 14:44 L1727061

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.24		0.289	0.714	0.488	0.256	04/29/2024 22:03	WG2272999
(T) Barium	*88.7*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*110*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.31		0.369	0.623	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0737	U	0.230	0.0927	0.387	0.255	04/24/2024 22:29	WG2271810
(T) Barium-133	*95.3*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD02825-06 SAMPLE RESULTS - 06

Collected date/time: 04/15/24 13:21 L1727061

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.43		0.275	0.634	0.457	0.239	04/29/2024 22:03	WG2272999
(T) Barium	*99.1*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*104*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.57		0.334	0.533	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.141	J	0.189	0.0781	0.274	0.203	04/24/2024 22:29	WG2271810
(T) Barium-133	*86.9*					*30.0-143*	*04/24/2024 22:29*	WG2271810

Method Blank (MB)

(MB) R4064695-1 04/29/24 22:03

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.813		0.206	0.349	0.183
(T) Barium	*104*		*104*		
(T) Yttrium	*93.2*		*93.2*		

L1727064-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727064-05 04/29/24 22:03 • (DUP) R4064695-5 04/29/24 22:03

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.491	0.270	0.476	0.249	1.25	0.307	0.514	0.272	87.4	1.87		20	3
(T) Barium	*95.8*				*102*	*102*							
(T) Yttrium	*98.6*				*95.9*	*95.9*							

Laboratory Control Sample (LCS)

(LCS) R4064695-2 04/29/24 22:03

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.91	98.1	80.0-120	
(T) Barium			*104*		
(T) Yttrium			*96.9*		

L1722466-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1722466-17 04/29/24 22:03 • (MS) R4064695-3 04/29/24 22:03 • (MSD) R4064695-4 04/29/24 22:03

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.875	10.2	9.88	93.4	90.0	1	70.0-130			3.43		20
(T) Barium		*103*			*98.6*	*104*							
(T) Yttrium		*112*			*99.0*	*101*							

Method Blank (MB)

(MB) R4062564-5 04/24/24 22:29

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00229	U	0.0277	0.0529	0.0334
(T) Barium-133	*85.3*		*85.3*		

L1727061-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727061-05 04/24/24 22:29 • (DUP) R4062564-4 04/24/24 18:03

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0737	0.230	0.387	0.255	0.000	0.237	0.437	0.283	200	0.223	U	20	3
(T) Barium-133	*95.3*				*91.1*	*91.1*							

Laboratory Control Sample (LCS)

(LCS) R4062564-1 04/24/24 16:10

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.98	99.5	80.0-120	
(T) Barium-133			*85.9*		

L1726048-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726048-01 04/24/24 18:03 • (MS) R4062564-2 04/24/24 18:03 • (MSD) R4062564-3 04/24/24 18:03

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.193	22.8	20.0	113	98.9	1	75.0-125			13.1		20
(T) Barium-133		*82.9*			*82.7*	*82.0*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD02825

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1722061

Sample: HD02825-01
Name: OM16

Sampled: 04/15/24 12:17
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 12:17	
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 12:17	

Sample: HD02825-02
Name: OM17

Sampled: 04/15/24 13:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 13:20	
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 13:20	

Sample: HD02825-03
Name: OM24D

Sampled: 04/15/24 10:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 10:53	
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 10:53	

Sample: HD02825-04
Name: OR11

Sampled: 04/15/24 14:44
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 14:44	
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 14:44	

SUBCONTRACT ORDER
Transfer Chain of Custody

B010

Pace Analytical Services, LLC
HD02825

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1727061

Sample: HD02825-05
Name: OR11 Dup

Sampled: 04/15/24 14:44
Matrix: Ground Water
Preservative: HNO3, pH <2 -05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 14:44	
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 14:44	

Sample: HD02825-06
Name: OR20

Sampled: 04/15/24 13:21
Matrix: Ground Water
Preservative: HNO3, pH <2 -06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 13:21	
01-Radium 226/228 combined	04/26/24 16:00	10/12/24 13:21	

Sample Receipt Checklist 7308 4398 8168 8249 04-18-24 CR

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr.	Y N		

Amb.

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

Date Shipped: 4/17/24 Total # of Containers: 6 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4/17/24 0730	CRoberts	04.18.24 0900

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

ANALYTICAL REPORT

May 07, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1727064
Samples Received:	04/18/2024
Project Number:	HD03070
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HD03070-01 L1727064-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 12:57	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD03070-02 L1727064-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 12:57	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271810	1	04/22/24 15:14	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271810	1	04/22/24 15:14	04/24/24 22:29	ZRG	Mt. Juliet, TN

HD03070-03 L1727064-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 11:30	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

HD03070-04 L1727064-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 14:32	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

HD03070-05 L1727064-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 15:00	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2272999	1	04/24/24 12:59	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	04/29/24 22:03	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

HD03070-06 L1727064-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 14:12	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2273003	1	04/26/24 00:27	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HD03070-07 L1727064-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 11:20	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2273003	1	04/26/24 00:27	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

HD03070-08 L1727064-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 12:05	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2273003	1	04/26/24 00:27	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

HD03070-09 L1727064-09 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 12:58	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2273003	1	04/26/24 00:27	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

HD03070-10 L1727064-10 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/16/24 10:22	04/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2273003	1	04/26/24 00:27	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2271813	1	04/23/24 11:10	05/01/24 21:48	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2271813	1	04/23/24 11:10	04/24/24 16:10	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Torrence
Project Manager

HD03070-01 SAMPLE RESULTS - 01

Collected date/time: 04/16/24 12:57 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.913		0.298	0.852	0.514	0.268	04/29/2024 22:03	WG2272999
(T) Barium	*93.1*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*96.6*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.19		0.378	0.571	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.275		0.232	0.104	0.249	0.189	04/24/2024 22:29	WG2271810
(T) Barium-133	*90.1*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD03070-02 SAMPLE RESULTS - 02

Collected date/time: 04/16/24 12:57 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.662		0.290	0.973	0.507	0.264	04/29/2024 22:03	WG2272999
(T) Barium	*93.8*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*99.8*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.953		0.386	0.588	04/29/2024 22:03	WG2271810

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.292	J	0.255	0.114	0.298	0.214	04/24/2024 22:29	WG2271810
(T) Barium-133	*91.8*					*30.0-143*	*04/24/2024 22:29*	WG2271810

HD03070-05 SAMPLE RESULTS - 03

Collected date/time: 04/16/24 11:30 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.17		0.293	0.745	0.499	0.260	04/29/2024 22:03	WG2272999
(T) Barium	*100*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*105*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.18		0.382	0.669	04/29/2024 22:03	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0181	U	0.245	0.0823	0.445	0.291	04/24/2024 16:10	WG2271813
(T) Barium-133	*83.7*					*30.0-143*	*04/24/2024 16:10*	WG2271813

HD03070-04 SAMPLE RESULTS - 04

Collected date/time: 04/16/24 14:32 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.65		0.312	0.676	0.520	0.271	04/29/2024 22:03	WG2272999
(T) Barium	*91.9*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*96.8*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.77		0.381	0.622	04/29/2024 22:03	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.126	J	0.218	0.0892	0.341	0.234	04/24/2024 16:10	WG2271813
(T) Barium-133	*91.1*					*30.0-143*	*04/24/2024 16:10*	WG2271813

HD03070-05 SAMPLE RESULTS - 05

Collected date/time: 04/16/24 15:00 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.491		0.270	1.05	0.476	0.249	04/29/2024 22:03	WG2272999
(T) Barium	*95.8*					*30.0-143*	*04/29/2024 22:03*	WG2272999
(T) Yttrium	*98.6*					*30.0-136*	*04/29/2024 22:03*	WG2272999

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.582		0.313	0.541	04/29/2024 22:03	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0911	U	0.158	0.0682	0.258	0.191	04/24/2024 16:10	WG2271813
(T) Barium-133	*92.5*					*30.0-143*	*04/24/2024 16:10*	WG2271813

HD03070-06 SAMPLE RESULTS - 06

Collected date/time: 04/16/24 14:12 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.663		0.329	1.10	0.579	0.302	05/01/2024 21:48	WG2273003
(T) Barium	*86.1*					*30.0-143*	*05/01/2024 21:48*	WG2273003
(T) Yttrium	*98.6*					*30.0-136*	*05/01/2024 21:48*	WG2273003

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.720		0.371	0.656	05/01/2024 21:48	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0572	U	0.172	0.0637	0.309	0.216	04/24/2024 16:10	WG2271813
(T) Barium-133	*85.5*					*30.0-143*	*04/24/2024 16:10*	WG2271813

HD03070-07 SAMPLE RESULTS - 07

Collected date/time: 04/16/24 11:20 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.946		0.327	0.919	0.567	0.297	05/01/2024 21:48	WG2273003
(T) Barium	*86.4*					*30.0-143*	*05/01/2024 21:48*	WG2273003
(T) Yttrium	*94.1*					*30.0-136*	*05/01/2024 21:48*	WG2273003

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.51		0.469	0.644	05/01/2024 21:48	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.563		0.336	0.143	0.305	0.219	04/24/2024 16:10	WG2271813
(T) Barium-133	*85.3*					*30.0-143*	*04/24/2024 16:10*	WG2271813

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.346	J	0.332	2.02	0.595	0.310	05/01/2024 21:48	WG2273003
(T) Barium	*79.4*					*30.0-143*	*05/01/2024 21:48*	WG2273003
(T) Yttrium	*107*					*30.0-136*	*05/01/2024 21:48*	WG2273003

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.845		0.463	0.692	05/01/2024 21:48	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.499		0.322	0.142	0.353	0.229	04/24/2024 16:10	WG2271813
(T) Barium-133	*92.6*					*30.0-143*	*04/24/2024 16:10*	WG2271813

HD03070-09 SAMPLE RESULTS - 09

Collected date/time: 04/16/24 12:58 L1727064

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.590		0.259	0.919	0.455	0.238	05/01/2024 21:48	WG2273003
(T) Barium	*96.5*					*30.0-143*	*05/01/2024 21:48*	WG2273003
(T) Yttrium	*102*					*30.0-136*	*05/01/2024 21:48*	WG2273003

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.639		0.314	0.551	05/01/2024 21:48	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0492	U	0.177	0.0625	0.310	0.208	04/24/2024 16:10	WG2271813
(T) Barium-133	*83.6*					*30.0-143*	*04/24/2024 16:10*	WG2271813

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.494		0.218	0.841	0.382	0.202	05/01/2024 21:48	WG2273003
(T) Barium	*92.4*					*30.0-143*	*05/01/2024 21:48*	WG2273003
(T) Yttrium	*107*					*30.0-136*	*05/01/2024 21:48*	WG2273003

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.629		0.296	0.484	05/01/2024 21:48	WG2271813

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.135	J	0.200	0.0829	0.297	0.202	04/24/2024 16:10	WG2271813
(T) Barium-133	*91.7*					*30.0-143*	*04/24/2024 16:10*	WG2271813

QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1727064-01,02,03,04,05

Method Blank (MB)

(MB) R4064695-1 04/29/24 22:03

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.813		0.206	0.349	0.183
(T) Barium	*104*		*104*		
(T) Yttrium	*93.2*		*93.2*		

L1727064-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727064-05 04/29/24 22:03 • (DUP) R4064695-5 04/29/24 22:03

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.491	0.270	0.476	0.249	1.25	0.307	0.514	0.272	87.4	1.87		20	3
(T) Barium	*95.8*				*102*	*102*							
(T) Yttrium	*98.6*				*95.9*	*95.9*							

Laboratory Control Sample (LCS)

(LCS) R4064695-2 04/29/24 22:03

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.91	98.1	80.0-120	
(T) Barium			*104*		
(T) Yttrium			*96.9*		

L1722466-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1722466-17 04/29/24 22:03 • (MS) R4064695-3 04/29/24 22:03 • (MSD) R4064695-4 04/29/24 22:03

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.875	10.2	9.88	93.4	90.0	1	70.0-130			3.43		20
(T) Barium		*103*			*98.6*	*104*							
(T) Yttrium		*112*			*99.0*	*101*							

Method Blank (MB)

(MB) R4066346-1 05/01/24 21:48

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0825	U	0.186	0.342	0.179
(T) Barium	*102*		*102*		
(T) Yttrium	*97.5*		*97.5*		

L1722557-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1722557-02 05/01/24 21:48 • (DUP) R4066346-5 05/01/24 21:48

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0126	0.219	0.405	0.214	0.197	0.330	0.600	0.317	200	0.530	U	20	3
(T) Barium	*93.4*				*91.6*	*91.6*							
(T) Yttrium	*95.1*				*94.9*	*94.9*							

Laboratory Control Sample (LCS)

(LCS) R4066346-2 05/01/24 21:48

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.41	108	80.0-120	
(T) Barium			*90.1*		
(T) Yttrium			*90.2*		

L1727064-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727064-08 05/01/24 21:48 • (MS) R4066346-3 05/01/24 21:48 • (MSD) R4066346-4 05/01/24 21:48

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.346	8.89	8.03	85.5	76.9	1	70.0-130			10.2		20
(T) Barium		*79.4*			*88.8*	*86.9*							
(T) Yttrium		*107*			*82.4*	*101*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1727064-01,02

Method Blank (MB)

(MB) R4062564-5 04/24/24 22:29

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00229	U	0.0277	0.0529	0.0334
(T) Barium-133	*85.3*		*85.3*		

L1727061-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727061-05 04/24/24 22:29 • (DUP) R4062564-4 04/24/24 18:03

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0737	0.230	0.387	0.255	0.000	0.237	0.437	0.283	200	0.223	U	20	3
(T) Barium-133	*95.3*				*91.1*	*91.1*							

Laboratory Control Sample (LCS)

(LCS) R4062564-1 04/24/24 16:10

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.98	99.5	80.0-120	
(T) Barium-133			*85.9*		

L1726048-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1726048-01 04/24/24 18:03 • (MS) R4062564-2 04/24/24 18:03 • (MSD) R4062564-3 04/24/24 18:03

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.193	22.8	20.0	113	98.9	1	75.0-125			13.1		20
(T) Barium-133		*82.9*			*82.7*	*82.0*							

Method Blank (MB)

(MB) R4063163-1 04/24/24 16:10

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.00560	U	0.0392	0.0822	0.0552
(T) Barium-133	*90.9*		*90.9*		

L1727334-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1727334-04 04/24/24 16:10 • (DUP) R4063163-5 04/24/24 16:10

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.162	0.201	0.282	0.192	0.356	0.254	0.273	0.189	74.9	0.599		20	3
(T) Barium-133	*98.1*				*92.4*	*92.4*							

Laboratory Control Sample (LCS)

(LCS) R4063163-2 04/24/24 16:10

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.21	104	80.0-120	
(T) Barium-133			*95.0*		

L1727064-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727064-06 04/24/24 16:10 • (MS) R4063163-3 04/24/24 16:10 • (MSD) R4063163-4 04/24/24 16:10

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0572	21.5	20.2	107	101	1	75.0-125			6.10		20
(T) Barium-133		*85.5*			*89.5*	*86.7*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03070

LIT27064

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HD03070-01
Name: BA01

Sampled: 04/16/24 12:57
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 12:57	

Sample: HD03070-02
Name: BA01 Dup

Sampled: 04/16/24 12:57
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 12:57	

Sample: HD03070-03
Name: BA02

Sampled: 04/16/24 11:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 11:30	

Sample: HD03070-04
Name: BA06

Sampled: 04/16/24 14:32
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 14:32	

Sample: HD03070-05
Name: OR02

Sampled: 04/16/24 15:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 15:00	

SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HD03070

SENDING LABORATORY	RECEIVING LABORATORY
PDC Laboratories, Inc. 2231 W Altorfer Dr Peoria, IL 61615 (800) 752-6651	Pace Analytical - Mt Juliet, Tn 12065 Lebanon Rd Mt Juliet, TN 37122 (615) 758-5858

L1727064

Sample: HD03070-06
Name: OM04S

Sampled: 04/16/24 14:12
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 14:12	

Sample: HD03070-07
Name: OM12

Sampled: 04/16/24 11:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 11:20	

Sample: HD03070-08
Name: OR06A

Sampled: 04/16/24 12:05
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 12:05	

Sample: HD03070-09
Name: OR14D

Sampled: 04/16/24 12:58
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 12:58	

Sample: HD03070-10
Name: OR19

Sampled: 04/16/24 10:22
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/29/24 16:00	10/13/24 10:22	

SUBCONTRACT ORDER
Transfer Chain of Custody

B011

Pace Analytical Services, LLC
HD03070

L1727024

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

7308 4398 8168

Amb

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

Date Shipped: 4/17/24 Total # of Containers: 10 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4/17/24 0730	[signature]	0900 04.18.24

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

ANALYTICAL REPORT

May 13, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1727509
Samples Received:	04/19/2024
Project Number:	HD03383
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

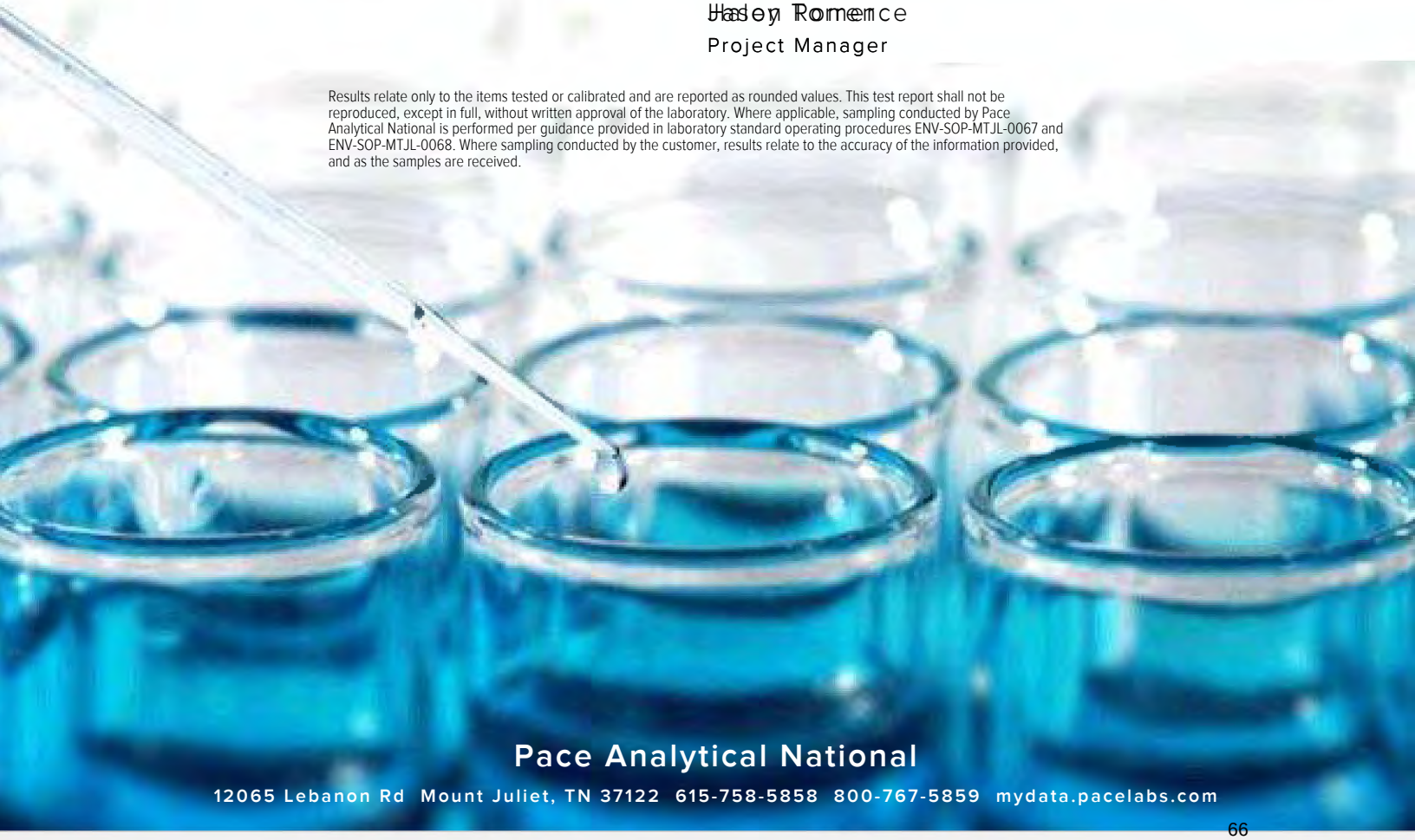


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SAMPLE SUMMARY

HD03383-01 G51S L1727509-01 Non-Potable Water

Collected by | Collected date/time 04/17/24 15:20 | Received date/time 04/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03383-02 G62L L1727509-02 Non-Potable Water

Collected by | Collected date/time 04/17/24 12:33 | Received date/time 04/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	04/30/24 23:29	ZRG	Mt. Juliet, TN

HD03383-03 OM22D L1727509-03 Non-Potable Water

Collected by | Collected date/time 04/17/24 10:35 | Received date/time 04/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03383-04 OM23D L1727509-04 Non-Potable Water

Collected by | Collected date/time 04/17/24 11:40 | Received date/time 04/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03383-05 OM25S L1727509-05 Non-Potable Water

Collected by | Collected date/time 04/17/24 14:45 | Received date/time 04/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03383-06 OR03D L1727509-06 Non-Potable Water

Collected by | Collected date/time 04/17/24 13:52 | Received date/time 04/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HD03383-07 OR04D L1727509-07 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				04/17/24 13:00	04/19/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03383-08 R61L L1727509-08 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				04/17/24 14:44	04/19/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03383-09 EB 1 L1727509-09 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				04/17/24 15:48	04/19/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	04/30/24 23:29	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Romence
Project Manager

HD03383-01 GLS

SAMPLE RESULTS - 01

Collected date/time: 04/17/24 15:20 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.16	J	0.679	1.74	1.18	0.614	05/07/2024 21:01	WG2276878
(T) Barium	*108*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*101*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.76		0.744	1.19	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.600		0.304	0.135	0.120	0.120	05/01/2024 15:54	WG2275054
(T) Barium-133	*85.7*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03383-07 GB2L **SAMPLE RESULTS - 02**

Collected date/time: 04/17/24 12:33 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.86		0.664	1.33	1.14	0.592	05/07/2024 21:01	WG2276878
(T) Barium	*102*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*103*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.13		0.714	1.19	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.272	J	0.263	0.105	0.325	0.233	04/30/2024 23:29	WG2275054
(T) Barium-133	*83.0*					*30.0-143*	*04/30/2024 23:29*	WG2275054

HD03383-05 DM22D SAMPLE RESULTS - 03

Collected date/time: 04/17/24 10:35 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.503	U	0.763	3.92	1.38	0.718	05/07/2024 21:01	WG2276878
(T) Barium	*97.2*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*84.8*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.08	J	0.851	1.39	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.08		0.377	0.183	0.156	0.129	05/01/2024 15:54	WG2275054
(T) Barium-133	*92.8*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03383-04 DM23D SAMPLE RESULTS - 04

Collected date/time: 04/17/24 11:40 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.28	J	0.750	1.82	1.31	0.683	05/07/2024 21:01	WG2276878
(T) Barium	*97.3*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*82.2*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.74		0.794	1.32	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.461		0.262	0.125	0.193	0.151	05/01/2024 15:54	WG2275054
(T) Barium-133	*93.1*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03383-05 OM25S SAMPLE RESULTS - 05

Collected date/time: 04/17/24 14:45 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.897	J	0.588	1.81	1.03	0.538	05/07/2024 21:01	WG2276878
(T) Barium	*98.8*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*103*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.89		0.701	1.06	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.997		0.382	0.184	0.235	0.171	05/01/2024 15:54	WG2275054
(T) Barium-133	*93.7*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03383-06 DR03D SAMPLE RESULTS - 06

Collected date/time: 04/17/24 13:52 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.23		0.547	1.34	0.944	0.497	05/07/2024 21:01	WG2276878
(T) Barium	*93.8*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*102*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.78		0.740	0.973	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.55		0.498	0.220	0.234	0.178	05/01/2024 15:54	WG2275054
(T) Barium-133	*84.4*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03383-07 DUP4D SAMPLE RESULTS - 07

Collected date/time: 04/17/24 13:00 L1727509

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.461	U	0.730	4.24	1.31	0.681	05/07/2024 21:01	WG2276878
(T) Barium	*93.3*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*109*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.849	J	0.818	1.32	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.849		0.368	0.160	0.188	0.155	05/01/2024 15:54	WG2275054
(T) Barium-133	*83.8*					*30.0-143*	*05/01/2024 15:54*	WG2275054

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.557		0.218	0.793	0.374	0.197	05/07/2024 21:01	WG2276878
(T) Barium	*101*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*99.5*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.914		0.320	0.392	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.358		0.234	0.100	0.119	0.119	05/01/2024 15:54	WG2275054
(T) Barium-133	*83.5*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03383-09 EB 1 SAMPLE RESULTS - 09

Collected date/time: 04/17/24 15:48 L1727509

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.405	J	0.250	1.11	0.436	0.229	05/07/2024 21:01	WG2276878
(T) Barium	*99.9*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*107*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.445	J	0.286	0.513	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0408	U	0.139	0.0557	0.270	0.196	04/30/2024 23:29	WG2275054
(T) Barium-133	*92.0*					*30.0-143*	*04/30/2024 23:29*	WG2275054

Method Blank (MB)

(MB) R4068021-1 05/07/24 21:01

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.0383	J	0.209	0.181	0.0937
(T) Barium	*98.4*		*98.4*		
(T) Yttrium	*96.3*		*96.3*		

L1727509-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727509-08 05/07/24 21:01 • (DUP) R4068021-5 05/07/24 21:01

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.557	0.218	0.374	0.197	0.575	0.346	0.602	0.315	3.25	0.0450	J	20	3
(T) Barium	*101*				*105*	*105*							
(T) Yttrium	*99.5*				*104*	*104*							

Laboratory Control Sample (LCS)

(LCS) R4068021-2 05/07/24 21:01

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.21	84.2	80.0-120	
(T) Barium			*95.2*		
(T) Yttrium			*97.1*		

L1728424-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1728424-07 05/07/24 21:01 • (MS) R4068021-3 05/07/24 21:01 • (MSD) R4068021-4 05/07/24 21:01

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.434	15.4	14.2	92.1	85.3	1	70.0-130			7.70		20
(T) Barium		*103*			*99.4*	*96.2*							
(T) Yttrium		*97.8*			*102*	*96.3*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1727509-01,02,03,04,05,06,07,08,09

Method Blank (MB)

(MB) R4064940-5 05/01/24 15:54

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0644		0.0385	0.0416	0.0275
(T) Barium-133	*84.5*		*84.5*		

L1727509-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1727509-02 04/30/24 23:29 • (DUP) R4064940-4 04/30/24 23:29

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.272	0.263	0.325	0.233	0.144	0.210	0.317	0.231	61.4	0.379	J	20	3
(T) Barium-133	*83.0*				*79.7*	*79.7*							

Laboratory Control Sample (LCS)

(LCS) R4064940-1 04/30/24 23:29

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.97	119	80.0-120	
(T) Barium-133			*83.6*		

L1727509-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727509-09 04/30/24 23:29 • (MS) R4064940-2 04/30/24 23:29 • (MSD) R4064940-3 04/30/24 23:29

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0408	20.8	18.0	104	89.8	1	75.0-125			14.4		20
(T) Barium-133		*92.0*			*93.1*	*92.8*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03383 L727509

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

J094

Sample: HD03383-01 -01
Name: G51S
Sampled: 04/17/24 15:20
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 15:20	

Sample: HD03383-02 -02
Name: G62L
Sampled: 04/17/24 12:33
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 12:33	

Sample: HD03383-03 -03
Name: OM22D
Sampled: 04/17/24 10:35
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 10:35	

Sample: HD03383-04 -04
Name: OM23D
Sampled: 04/17/24 11:40
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 11:40	

Sample: HD03383-05 -05
Name: OM25S
Sampled: 04/17/24 14:45
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 14:45	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03383

L1727509

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HD03383-06
Name: OR03D

Sampled: 04/17/24 13:52
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 13:52	

Sample: HD03383-07
Name: OR04D

Sampled: 04/17/24 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 13:00	

Sample: HD03383-08
Name: R61L

Sampled: 04/17/24 14:44
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 14:44	

Sample: HD03383-09
Name: EB 1

Sampled: 04/17/24 15:48
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	04/30/24 16:00	10/14/24 15:48	

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RA Screen <0.5 mR/hr: Y N

If Applicable
VOA Zero Headspace: Y N
Pres. Correct/Check: Y N

730843989788

Amb

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
HD03383

L1727509

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

Date Shipped: 4/18/24 Total # of Containers: 9 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4/18/24 1635	Hailey Patterson	4/19/24 0900

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

ANALYTICAL REPORT

May 13, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1728424
Samples Received:	04/23/2024
Project Number:	HD03621
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HD03621-01 L1728424-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/18/24 12:20	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2275535	1	04/29/24 23:02	05/06/24 21:59	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/06/24 21:59	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

HD03621-02 L1728424-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/18/24 12:44	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2275531	1	04/27/24 11:38	05/03/24 21:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/03/24 21:15	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

HD03621-03 L1728424-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/18/24 14:01	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2275531	1	04/27/24 11:38	05/03/24 21:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/03/24 21:15	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

HD03621-04 L1728424-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/18/24 15:08	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03621-05 L1728424-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/18/24 11:33	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

HD03621-06 L1728424-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/18/24 11:20	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HD03621-07 L1728424-07 Non-Potable Water		04/18/24 11:20	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HD03621-08 L1728424-08 Non-Potable Water		04/18/24 13:02	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2275054	1	04/26/24 13:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2275054	1	04/26/24 13:39	05/01/24 15:54	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HD03621-09 L1728424-09 Non-Potable Water		04/18/24 13:49	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HD03621-10 L1728424-10 Non-Potable Water		04/18/24 14:35	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HD03621-11 L1728424-11 Non-Potable Water		04/18/24 15:18	04/23/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276878	1	04/30/24 16:39	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/07/24 21:01	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Romence
Project Manager

HD03621-01 SAMPLE RESULTS - 01

Collected date/time: 04/18/24 12:20 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.238	U	0.379	2.55	0.700	0.367	05/06/2024 21:59	WG2275535
(T) Barium	*119*					*30.0-143*	*05/06/2024 21:59*	WG2275535
(T) Yttrium	*88.5*					*30.0-136*	*05/06/2024 21:59*	WG2275535

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.690	J	0.494	0.782	05/06/2024 21:59	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.452		0.317	0.130	0.349	0.234	04/26/2024 18:19	WG2273186
(T) Barium-133	*85.6*					*30.0-143*	*04/26/2024 18:19*	WG2273186

HD03621-02 SAMPLE RESULTS - 02

Collected date/time: 04/18/24 12:44 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.341	J	0.227	1.16	0.415	0.218	05/03/2024 21:15	WG2275531
(T) Barium	*105*					*30.0-143*	*05/03/2024 21:15*	WG2275531
(T) Yttrium	*102*					*30.0-136*	*05/03/2024 21:15*	WG2275531

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.694		0.354	0.511	05/03/2024 21:15	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.353		0.272	0.106	0.298	0.211	04/26/2024 18:19	WG2273186
(T) Barium-133	*79.7*					*30.0-143*	*04/26/2024 18:19*	WG2273186

HD03621-03 SAMPLE RESULTS - 03

Collected date/time: 04/18/24 14:01 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.503		0.236	0.904	0.427	0.226	05/03/2024 21:15	WG2275531
(T) Barium	*103*					*30.0-143*	*05/03/2024 21:15*	WG2275531
(T) Yttrium	*83.3*					*30.0-136*	*05/03/2024 21:15*	WG2275531

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.594		0.320	0.562	05/03/2024 21:15	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0902	U	0.216	0.0800	0.365	0.250	04/26/2024 18:19	WG2273186
(T) Barium-133	*84.6*					*30.0-143*	*04/26/2024 18:19*	WG2273186

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HD03621-04 SAMPLE RESULTS - 04

Collected date/time: 04/18/24 15:08 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.630	J	2.00	3.47	1.73	0.892	05/07/2024 21:01	WG2276878
(T) Barium	*98.8*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*91.9*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.856	J	2.01	1.74	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.225		0.175	0.0797	0.198	0.141	05/01/2024 15:54	WG2275054
(T) Barium-133	*91.2*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03621-05 SAMPLE RESULTS - 05

Collected date/time: 04/18/24 11:33 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.272	U	0.410	2.63	0.726	0.380	05/07/2024 21:01	WG2276878
(T) Barium	*91.1*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*107*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.607	J	0.478	0.788	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.335		0.245	0.107	0.307	0.197	05/01/2024 15:54	WG2275054
(T) Barium-133	*89.5*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03621-06 SAMPLE RESULTS - 06

Collected date/time: 04/18/24 11:20 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.234	U	0.606	3.31	1.08	0.564	05/07/2024 21:01	WG2276878
(T) Barium	*101*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*107*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.269	U	0.624	1.12	05/07/2024 21:01	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0341	U	0.150	0.0537	0.297	0.213	04/26/2024 18:19	WG2273186
(T) Barium-133	*84.1*					*30.0-143*	*04/26/2024 18:19*	WG2273186

HD03621-07 SAMPLE RESULTS - 07

Collected date/time: 04/18/24 11:20 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.434	U	0.584	3.06	1.06	0.556	05/07/2024 21:01	WG2276878
(T) Barium	*103*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*97.8*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0437	U	0.604	1.10	05/07/2024 21:01	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0437	U	0.156	0.0592	0.285	0.198	04/26/2024 18:19	WG2273186
(T) Barium-133	*88.5*					*30.0-143*	*04/26/2024 18:19*	WG2273186

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.626	J	0.462	1.81	0.815	0.432	05/07/2024 21:01	WG2276878
(T) Barium	*99.1*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*97.9*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.813	J	0.487	0.832	05/07/2024 21:01	WG2275054

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.187		0.154	0.0684	0.168	0.127	05/01/2024 15:54	WG2275054
(T) Barium-133	*87.8*					*30.0-143*	*05/01/2024 15:54*	WG2275054

HD03621-09 SAMPLE RESULTS - 09

Collected date/time: 04/18/24 13:49 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.148	U	0.202	1.45	0.361	0.191	05/07/2024 21:01	WG2276878
(T) Barium	*99.6*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*103*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.480		0.336	0.461	05/07/2024 21:01	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.332		0.268	0.108	0.287	0.213	04/26/2024 18:19	WG2273186
(T) Barium-133	*81.4*					*30.0-143*	*04/26/2024 18:19*	WG2273186

HD03621-10 SAMPLE RESULTS - 10

Collected date/time: 04/18/24 14:35 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.178	J	0.206	1.43	0.367	0.194	05/07/2024 21:01	WG2276878
(T) Barium	*96.3*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*104*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.461		0.315	0.430	05/07/2024 21:01	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.283		0.238	0.0952	0.225	0.186	04/26/2024 18:19	WG2273186
(T) Barium-133	*79.0*					*30.0-143*	*04/26/2024 18:19*	WG2273186

HD03621-11 SAMPLE RESULTS - 11

Collected date/time: 04/18/24 15:18 L1728424

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.177	U	0.402	2.88	0.713	0.372	05/07/2024 21:01	WG2276878
(T) Barium	*105*					*30.0-143*	*05/07/2024 21:01*	WG2276878
(T) Yttrium	*69.2*					*30.0-136*	*05/07/2024 21:01*	WG2276878

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.305	U	0.433	0.743	05/07/2024 21:01	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.128	J	0.160	0.0683	0.210	0.174	04/26/2024 18:19	WG2273186
(T) Barium-133	*85.7*					*30.0-143*	*04/26/2024 18:19*	WG2273186

WG2275531 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1728424-02,03

Method Blank (MB)

(MB) R4066838-1 05/03/24 21:15

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.195	J	0.214	0.397	0.208
(T) Barium	*89.4*		*89.4*		
(T) Yttrium	*78.2*		*78.2*		

L1723181-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1723181-01 05/03/24 21:15 • (DUP) R4066838-5 05/03/24 21:15

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.857	0.349	0.627	0.328	0.626	0.366	0.667	0.348	31.2	0.457	J	20	3
(T) Barium	*101*				*111*	*111*							
(T) Yttrium	*104*				*95.3*	*95.3*							

Laboratory Control Sample (LCS)

(LCS) R4066838-2 05/03/24 21:15

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.17	103	80.0-120	
(T) Barium			*105*		
(T) Yttrium			*101*		

L1723152-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1723152-01 05/03/24 21:15 • (MS) R4066838-3 05/03/24 21:15 • (MSD) R4066838-4 05/03/24 21:15

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	4.40	25.4	22.2	126	106	1	70.0-130			13.7		20
(T) Barium		*112*			*113*	*103*							
(T) Yttrium		*91.6*			*97.7*	*98.6*							

Method Blank (MB)

(MB) R4068015-1 05/06/24 21:59

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0543	U	0.220	0.411	0.214
(T) Barium	*97.1*		*97.1*		
(T) Yttrium	*82.0*		*82.0*		

L1723184-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1723184-11 05/06/24 21:59 • (DUP) R4068015-5 05/06/24 21:59

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.152	0.322	0.609	0.319	0.511	0.447	0.815	0.425	200	1.20	J	20	3
(T) Barium	*115*				*95.9*	*95.9*							
(T) Yttrium	*96.5*				*87.5*	*87.5*							

Laboratory Control Sample (LCS)

(LCS) R4068015-2 05/06/24 21:59

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.18	83.7	80.0-120	
(T) Barium			*87.0*		
(T) Yttrium			*107*		

L1723184-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1723184-03 05/06/24 21:59 • (MS) R4068015-3 05/06/24 21:59 • (MSD) R4068015-4 05/06/24 21:59

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.879	17.0	16.2	102	97.1	1	70.0-130			4.76		20
(T) Barium		*102*			*89.4*	*88.8*							
(T) Yttrium		*91.8*			*94.8*	*96.3*							

Method Blank (MB)

(MB) R4068021-1 05/07/24 21:01

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.0383	J	0.209	0.181	0.0937
(T) Barium	*98.4*		*98.4*		
(T) Yttrium	*96.3*		*96.3*		

L1727509-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1727509-08 05/07/24 21:01 • (DUP) R4068021-5 05/07/24 21:01

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.557	0.218	0.374	0.197	0.575	0.346	0.602	0.315	3.25	0.0450	J	20	3
(T) Barium	*101*				*105*	*105*							
(T) Yttrium	*99.5*				*104*	*104*							

Laboratory Control Sample (LCS)

(LCS) R4068021-2 05/07/24 21:01

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.21	84.2	80.0-120	
(T) Barium			*95.2*		
(T) Yttrium			*97.1*		

L1728424-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1728424-07 05/07/24 21:01 • (MS) R4068021-3 05/07/24 21:01 • (MSD) R4068021-4 05/07/24 21:01

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.434	15.4	14.2	92.1	85.3	1	70.0-130			7.70		20
(T) Barium		*103*			*99.4*	*96.2*							
(T) Yttrium		*97.8*			*102*	*96.3*							

Method Blank (MB)

(MB) R4063443-1 04/26/24 18:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.00226	U	0.00627	0.0264	0.0200
(T) Barium-133	*83.8*		*83.8*		

L1728801-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1728801-02 04/26/24 18:19 • (DUP) R4063443-5 04/26/24 18:19

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.321	0.259	0.257	0.201	0.0247	0.187	0.353	0.239	171	0.927	U	20	3
(T) Barium-133	*80.3*				*88.2*	*88.2*							

Laboratory Control Sample (LCS)

(LCS) R4063443-2 04/26/24 18:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.26	105	80.0-120	
(T) Barium-133			*82.6*		

L1728424-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1728424-02 04/26/24 18:19 • (MS) R4063443-3 04/26/24 18:19 • (MSD) R4063443-4 04/26/24 18:19

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.353	21.2	21.5	104	105	1	75.0-125			1.03		20
(T) Barium-133		*79.7*			*84.7*	*79.8*							

Radiochemistry by Method SM7500Ra B M

Method Blank (MB)

(MB) R4064940-5 05/01/24 15:54

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0644		0.0385	0.0416	0.0275
(T) Barium-133	*84.5*		*84.5*		

L1727509-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1727509-02 04/30/24 23:29 • (DUP) R4064940-4 04/30/24 23:29

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.272	0.263	0.325	0.233	0.144	0.210	0.317	0.231	61.4	0.379	J	20	3
(T) Barium-133	*83.0*				*79.7*	*79.7*							

Laboratory Control Sample (LCS)

(LCS) R4064940-1 04/30/24 23:29

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.97	119	80.0-120	
(T) Barium-133			*83.6*		

L1727509-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727509-09 04/30/24 23:29 • (MS) R4064940-2 04/30/24 23:29 • (MSD) R4064940-3 04/30/24 23:29

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0408	20.8	18.0	104	89.8	1	75.0-125			14.4		20
(T) Barium-133		*92.0*			*93.1*	*92.8*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

A202

Pace Analytical Services, LLC
HD03621

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LT128424

Sample: HD03621-01
Name: BA02L

Sampled: 04/18/24 12:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 12:20	

Sample: HD03621-02
Name: BA03

Sampled: 04/18/24 12:44
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 12:44	

Sample: HD03621-03
Name: BA03L

Sampled: 04/18/24 14:01
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 14:01	

Sample: HD03621-04
Name: BA04

Sampled: 04/18/24 15:08
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 15:08	

Sample: HD03621-05
Name: BA05

Sampled: 04/18/24 11:33
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 11:33	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03621

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1758424

Sample: HD03621-06
Name: OM01

Sampled: 04/18/24 11:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 11:20	

Sample: HD03621-07
Name: OMO1 Dup

Sampled: 04/18/24 11:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 11:20	

Sample: HD03621-08
Name: OM07

Sampled: 04/18/24 13:02
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 13:02	

Sample: HD03621-09
Name: OR13D

Sampled: 04/18/24 13:49
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 13:49	

Sample: HD03621-10
Name: OR13S

Sampled: 04/18/24 14:35
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 14:35	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03621

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1728424

Sample: HD03621-11
Name: OM21

Sampled: 04/18/24 15:18
Matrix: Ground Water
Preservative: HNO3, pH <2

-11

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/01/24 16:00	10/15/24 15:18	

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

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

Date Shipped: 4/22/24 Total # of Containers: 11 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	4/22/24 1100	Hailey Robertson	4/23/24 0900

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

ANALYTICAL REPORT

May 13, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1728801
Samples Received:	04/24/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

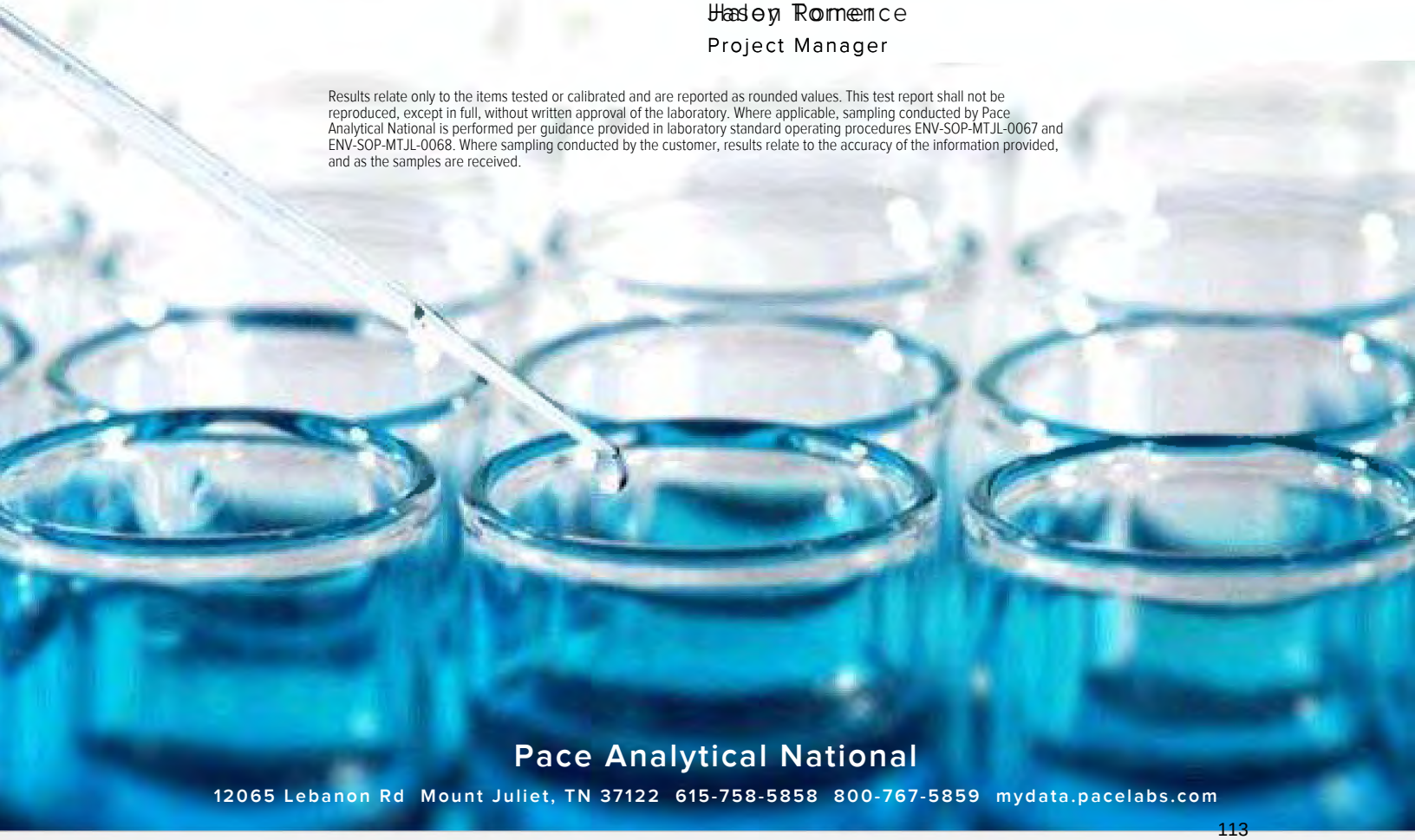


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SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HD03934-01 L1728801-01 Non-Potable Water		04/22/24 15:23	04/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276879	1	05/02/24 15:53	05/09/24 17:07	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/09/24 17:07	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HD03934-02 L1728801-02 Non-Potable Water		04/22/24 14:55	04/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2276879	1	05/02/24 15:53	05/09/24 17:07	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2273186	1	04/25/24 14:47	05/09/24 17:07	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2273186	1	04/25/24 14:47	04/26/24 18:19	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Torrence
Project Manager

HD03934-01 SAMPLE RESULTS - 01

Collected date/time: 04/22/24 15:23 L1728801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.557		0.325	1.18	0.534	0.282	05/09/2024 17:07	WG2276879
(T) Barium	*134*					*30.0-143*	*05/09/2024 17:07*	WG2276879
(T) Yttrium	*101*					*30.0-136*	*05/09/2024 17:07*	WG2276879

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.884		0.402	0.579	05/09/2024 17:07	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.326		0.236	0.103	0.225	0.171	04/26/2024 18:19	WG2273186
(T) Barium-133	*87.5*					*30.0-143*	*04/26/2024 18:19*	WG2273186

HD03934-02 SAMPLE RESULTS - 02

Collected date/time: 04/22/24 14:55 L1728801

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.04		0.403	1.07	0.651	0.342	05/09/2024 17:07	WG2276879
(T) Barium	*127*					*30.0-143*	*05/09/2024 17:07*	WG2276879
(T) Yttrium	*90.1*					*30.0-136*	*05/09/2024 17:07*	WG2276879

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.36		0.479	0.700	05/09/2024 17:07	WG2273186

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.321		0.259	0.104	0.257	0.201	04/26/2024 18:19	WG2273186
(T) Barium-133	*80.3*					*30.0-143*	*04/26/2024 18:19*	WG2273186

Method Blank (MB)

(MB) R4068028-1 05/09/24 17:07

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.365		0.165	0.290	0.153
(T) Barium	*108*		*108*		
(T) Yttrium	*88.8*		*88.8*		

L1728801-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1728801-02 05/09/24 17:07 • (DUP) R4068028-5 05/09/24 17:07

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.04	0.403	0.651	0.342	1.11	0.373	0.644	0.336	6.22	0.122		20	3
(T) Barium	*127*				*119*	*119*							
(T) Yttrium	*90.1*				*105*	*105*							

Laboratory Control Sample (LCS)

(LCS) R4068028-2 05/09/24 17:07

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.64	113	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*96.2*		

L1724415-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1724415-02 05/09/24 17:07 • (MS) R4068028-3 05/09/24 17:07 • (MSD) R4068028-4 05/09/24 17:07

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.231	18.3	17.4	110	104	1	70.0-130			4.98		20
(T) Barium		*127*			*120*	*115*							
(T) Yttrium		*102*			*91.1*	*96.6*							

Method Blank (MB)

(MB) R4063443-1 04/26/24 18:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.00226	U	0.00627	0.0264	0.0200
(T) Barium-133	*83.8*		*83.8*		

L1728801-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1728801-02 04/26/24 18:19 • (DUP) R4063443-5 04/26/24 18:19

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.321	0.259	0.257	0.201	0.0247	0.187	0.353	0.239	171	0.927	U	20	3
(T) Barium-133	*80.3*				*88.2*	*88.2*							

Laboratory Control Sample (LCS)

(LCS) R4063443-2 04/26/24 18:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.26	105	80.0-120	
(T) Barium-133			*82.6*		

L1728424-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1728424-02 04/26/24 18:19 • (MS) R4063443-3 04/26/24 18:19 • (MSD) R4063443-4 04/26/24 18:19

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.353	21.2	21.5	104	105	1	75.0-125			1.03		20
(T) Barium-133		*79.7*			*84.7*	*79.8*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
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Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD03934

L1728801

123

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

B127

Sample: HD03934-01
Name: G02S

Sampled: 04/22/24 15:23
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/03/24 16:00	10/19/24 15:23	
01-Radium 226/228 combined	05/03/24 16:00	10/19/24 15:23	

Sample: HD03934-02
Name: G64L

Sampled: 04/22/24 14:55
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/03/24 16:00	10/19/24 14:55	
01-Radium 226/228 combined	05/03/24 16:00	10/19/24 14:55	

Sample Receipt Checklist — If Applicable

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RA Screen <0.5 mR/hr: Y N

VOA Zero Headspace: Y N
Pres. Correct/Check: Y N

AMB

7760 7470 0791

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

Date Shipped: 4/23/24 Total # of Containers: 2 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	4/23/24 0720	Hailey Robertson	4/24/24 0900

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

ANALYTICAL REPORT

May 14, 2024

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1729945
Samples Received:	04/26/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

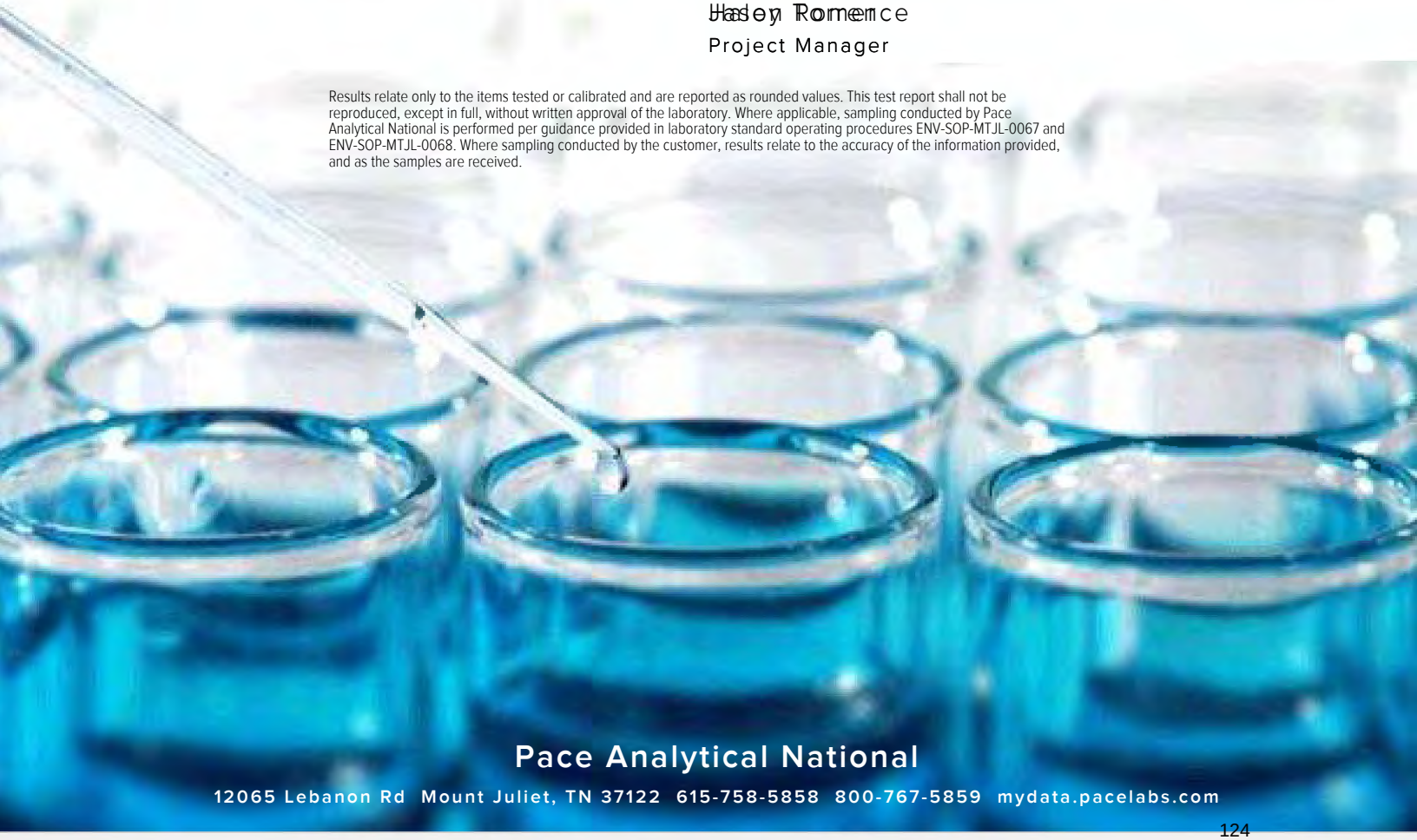


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SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HD04162-01 L1729945-01 Non-Potable Water		04/23/24 12:35	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HD04162-02 L1729945-02 Non-Potable Water		04/23/24 11:55	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadey Romence
Project Manager

Report Revision History

Level II Report - Version 1: 05/13/24 16:57

Project Narrative

Updated collect time.

HD04162-01 SAMPLE RESULTS - 01

Collected date/time: 04/23/24 12:35 L1729945

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-1.02	U	0.284	2.39	0.509	0.265	05/10/2024 18:58	WG2277695
(T) Barium	*99.1*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*105*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.728		0.459	0.573	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.728		0.360	0.170	0.263	0.195	05/09/2024 12:14	WG2281006
(T) Barium-133	*93.1*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04162-02 SAMPLE RESULTS - 02

Collected date/time: 04/23/24 11:55 L1729945

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.0796	U	0.276	2.29	0.472	0.246	05/10/2024 18:58	WG2277695
(T) Barium	*104*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*103*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.317	J	0.370	0.533	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.317		0.246	0.112	0.248	0.189	05/09/2024 12:14	WG2281006
(T) Barium-133	*91.1*					*30.0-143*	*05/09/2024 12:14*	WG2281006

WG2277695 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1729945-01,02

Method Blank (MB)

(MB) R4069044-1 05/10/24 18:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.348		0.148	0.266	0.141
(T) Barium	*113*		*113*		
(T) Yttrium	*91.6*		*91.6*		

L1725467-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1725467-02 05/10/24 18:58 • (DUP) R4069044-5 05/10/24 18:58

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0916	0.272	0.520	0.275	-0.921	0.290	0.585	0.308	0.000	2.09	U	20	3
(T) Barium	*104*				*101*	*101*							
(T) Yttrium	*102*				*94.0*	*94.0*							

Laboratory Control Sample (LCS)

(LCS) R4069044-2 05/10/24 18:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.36	87.2	80.0-120	
(T) Barium			*107*		
(T) Yttrium			*96.4*		

L1729950-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1729950-03 05/10/24 18:58 • (MS) R4069044-3 05/10/24 18:58 • (MSD) R4069044-4 05/10/24 18:58

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.384	16.7	17.9	100	107	1	70.0-130			6.70		20
(T) Barium		*87.0*			*108*	*93.1*							
(T) Yttrium		*97.2*			*98.9*	*90.4*							

QUALITY CONTROL SUMMARY

L1729945-01,02

Radiochemistry by Method SM7500Ra B M

Method Blank (MB)

(MB) R4067868-1 05/09/24 12:14

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0305	U	0.0556	0.131	0.0863
(T) Barium-133	*70.2*		*70.2*		

L1727514-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727514-05 05/09/24 12:14 • (DUP) R4067868-5 05/09/24 12:14

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.654	0.365	0.283	0.215	0.197	0.271	0.394	0.264	108	1.01	J	20	3
(T) Barium-133	*79.3*				*87.4*	*87.4*							

Laboratory Control Sample (LCS)

(LCS) R4067868-2 05/09/24 12:14

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.38	108	80.0-120	
(T) Barium-133			*85.9*		

L1727514-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727514-03 05/09/24 12:14 • (MS) R4067868-3 05/09/24 12:14 • (MSD) R4067868-4 05/09/24 12:14

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0347	22.4	20.8	112	104	1	75.0-125			7.41		20
(T) Barium-133		*67.4*			*75.3*	*86.8*							

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Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD04162

134

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

B159

L729945

Sample: HD04162-01
Name: G50S

Sampled: 04/23/24 12:35
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/06/24 16:00	10/20/24 12:35	

Sample: HD04162-02
Name: G54L

Sampled: 04/23/24 11:55
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/06/24 16:00	10/20/24 11:55	

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

16.0+0.1=16.1
DPA6

7761312 0413

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

Date Shipped: 4/25/24 Total # of Containers: 2 Sample Origin (State): I PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	4/25/24 1615	Hailey Rotuther	4/26/24 0900

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

APPENDIX B
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 1 AND ASH POND NO. 2
DC-845-2014-202

ANALYTICAL REPORT

May 13, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1729950
Samples Received:	04/26/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

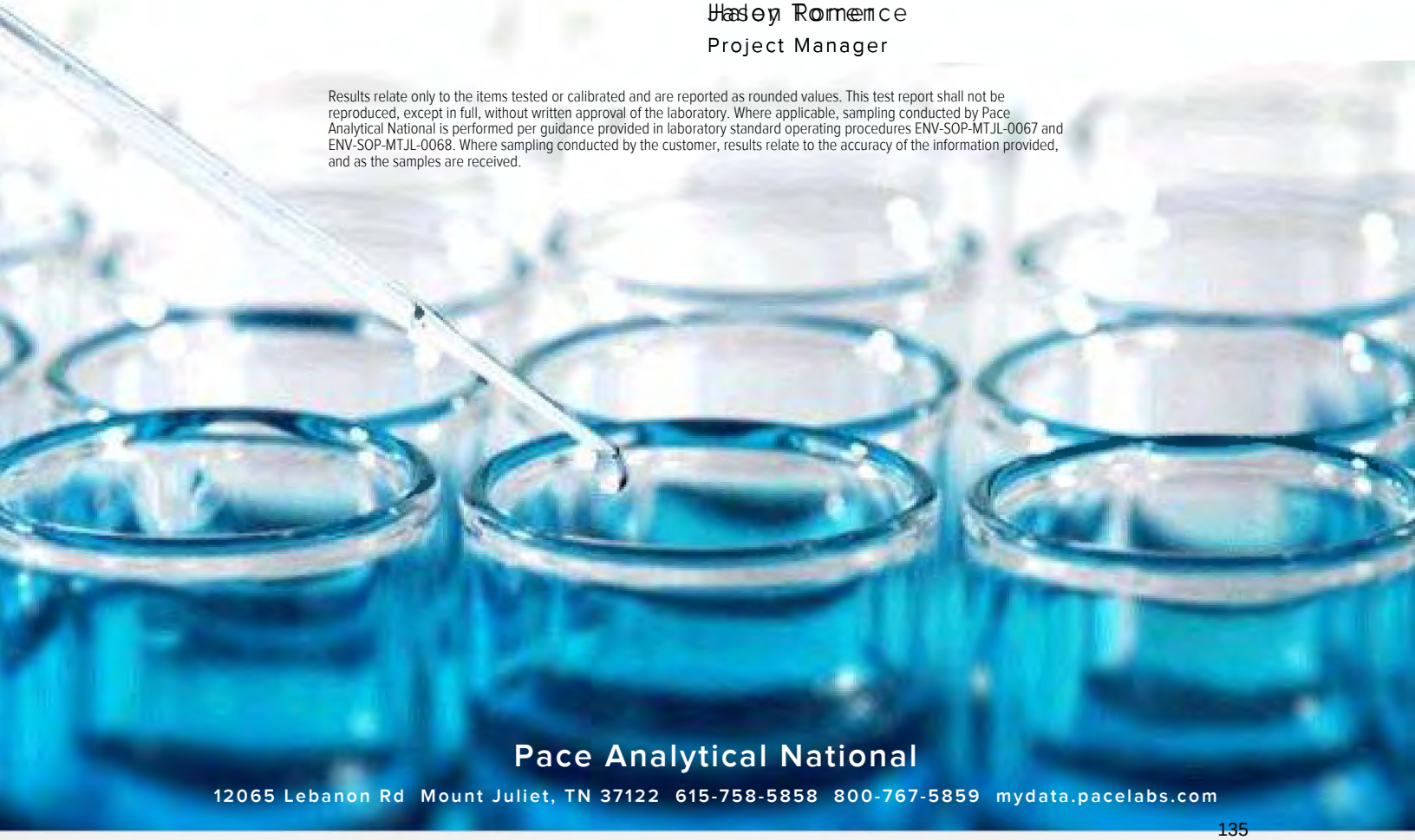


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SAMPLE SUMMARY

HD04441-01 L1729950-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 11:49	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04441-02 L1729950-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 13:00	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04441-03 L1729950-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 12:50	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04441-04 L1729950-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 11:30	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04441-05 L1729950-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 11:40	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04441-06 L1729950-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 13:20	04/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277695	1	05/02/24 17:54	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/10/24 18:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Romence
Project Manager

HD04441-01 SAMPLE RESULTS - 01

Collected date/time: 04/24/24 11:49 L1729950

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.546	U	0.307	2.61	0.534	0.278	05/10/2024 18:58	WG2277695
(T) Barium	*97.0*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*106*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0724	U	0.376	0.662	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0724	U	0.217	0.0693	0.391	0.273	05/09/2024 12:14	WG2281006
(T) Barium-133	*73.5*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04441-02 SAMPLE RESULTS - 02

Collected date/time: 04/24/24 13:00 L1729950

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.286	U	0.275	2.28	0.475	0.248	05/10/2024 18:58	WG2277695
(T) Barium	*102*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*101*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.192	U	0.347	0.550	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.192	J	0.211	0.0976	0.278	0.199	05/09/2024 12:14	WG2281006
(T) Barium-133	*97.1*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04441-03 SAMPLE RESULTS - 03

Collected date/time: 04/24/24 12:50 L1729950

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.384	U	0.524	3.56	0.897	0.466	05/10/2024 18:58	WG2277695
(T) Barium	*87.0*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*97.2*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.433	J	0.573	0.909	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.433		0.232	0.119	0.145	0.119	05/09/2024 12:14	WG2281006
(T) Barium-133	*100*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04441-04 SAMPLE RESULTS - 04

Collected date/time: 04/24/24 11:30 L1729950

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.415	U	0.297	2.47	0.514	0.268	05/10/2024 18:58	WG2277695
(T) Barium	*100*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*106*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.209	J	0.355	0.561	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.209	J	0.195	0.0882	0.224	0.171	05/09/2024 12:14	WG2281006
(T) Barium-133	*91.6*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04441-05 SAMPLE RESULTS - 05

Collected date/time: 04/24/24 11:40 L1729950

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.933	U	0.429	2.93	0.753	0.392	05/10/2024 18:58	WG2277695
(T) Barium	*94.2*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*118*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.196	U	0.475	0.798	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.196	J	0.203	0.0843	0.265	0.182	05/09/2024 12:14	WG2281006
(T) Barium-133	*88.6*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04441-06 SAMPLE RESULTS - 06

Collected date/time: 04/24/24 13:20 L1729950

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.238	U	0.388	2.56	0.668	0.349	05/10/2024 18:58	WG2277695
(T) Barium	*97.4*					*30.0-143*	*05/10/2024 18:58*	WG2277695
(T) Yttrium	*116*					*30.0-136*	*05/10/2024 18:58*	WG2277695

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.574	J	0.486	0.713	05/10/2024 18:58	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.574		0.293	0.147	0.249	0.174	05/09/2024 12:14	WG2281006
(T) Barium-133	*102*					*30.0-143*	*05/09/2024 12:14*	WG2281006

Method Blank (MB)

(MB) R4069044-1 05/10/24 18:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.348		0.148	0.266	0.141
(T) Barium	*113*		*113*		
(T) Yttrium	*91.6*		*91.6*		

L1725467-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1725467-02 05/10/24 18:58 • (DUP) R4069044-5 05/10/24 18:58

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0916	0.272	0.520	0.275	-0.921	0.290	0.585	0.308	0.000	2.09	U	20	3
(T) Barium	*104*				*101*	*101*							
(T) Yttrium	*102*				*94.0*	*94.0*							

Laboratory Control Sample (LCS)

(LCS) R4069044-2 05/10/24 18:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.36	87.2	80.0-120	
(T) Barium			*107*		
(T) Yttrium			*96.4*		

L1729950-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1729950-03 05/10/24 18:58 • (MS) R4069044-3 05/10/24 18:58 • (MSD) R4069044-4 05/10/24 18:58

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.384	16.7	17.9	100	107	1	70.0-130			6.70		20
(T) Barium		*87.0*			*108*	*93.1*							
(T) Yttrium		*97.2*			*98.9*	*90.4*							

WG2281006 QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1729950-01,02,03,04,05,06

Method Blank (MB)

(MB) R4067868-1 05/09/24 12:14

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0305	U	0.0556	0.131	0.0863
(T) Barium-133	*70.2*		*70.2*		

L1727514-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727514-05 05/09/24 12:14 • (DUP) R4067868-5 05/09/24 12:14

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.654	0.365	0.283	0.215	0.197	0.271	0.394	0.264	108	1.01	J	20	3
(T) Barium-133	*79.3*				*87.4*	*87.4*							

Laboratory Control Sample (LCS)

(LCS) R4067868-2 05/09/24 12:14

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.38	108	80.0-120	
(T) Barium-133			*85.9*		

L1727514-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727514-03 05/09/24 12:14 • (MS) R4067868-3 05/09/24 12:14 • (MSD) R4067868-4 05/09/24 12:14

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0347	22.4	20.8	112	104	1	75.0-125			7.41		20
(T) Barium-133		*67.4*			*75.3*	*86.8*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD04441

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1729950
B158

Sample: HD04441-01
Name: G54S

Sampled: 04/24/24 11:49
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/07/24 16:00	10/21/24 11:49	

Sample: HD04441-02
Name: G57S

Sampled: 04/24/24 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/07/24 16:00	10/21/24 13:00	

Sample: HD04441-03
Name: G61S

Sampled: 04/24/24 12:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/07/24 16:00	10/21/24 12:50	

Sample: HD04441-04
Name: G64S

Sampled: 04/24/24 11:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/07/24 16:00	10/21/24 11:30	

Sample: HD04441-05
Name: G60L

Sampled: 04/24/24 11:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/07/24 16:00	10/21/24 11:40	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD04441

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LM29950

Sample: HD04441-06
Name: G60S

Sampled: 04/24/24 13:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/07/24 16:00	10/21/24 13:20	

16.0+0.1=16.1
DP A6

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable:	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

7761 3120413

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

Date Shipped: 4/25/24 Total # of Containers: 6 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	4/25/24 1615		
		[signature]	4/26/24 0900

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

ANALYTICAL REPORT

May 14, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1730987
Samples Received:	04/30/2024
Project Number:	HD04652
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Hadey Romence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

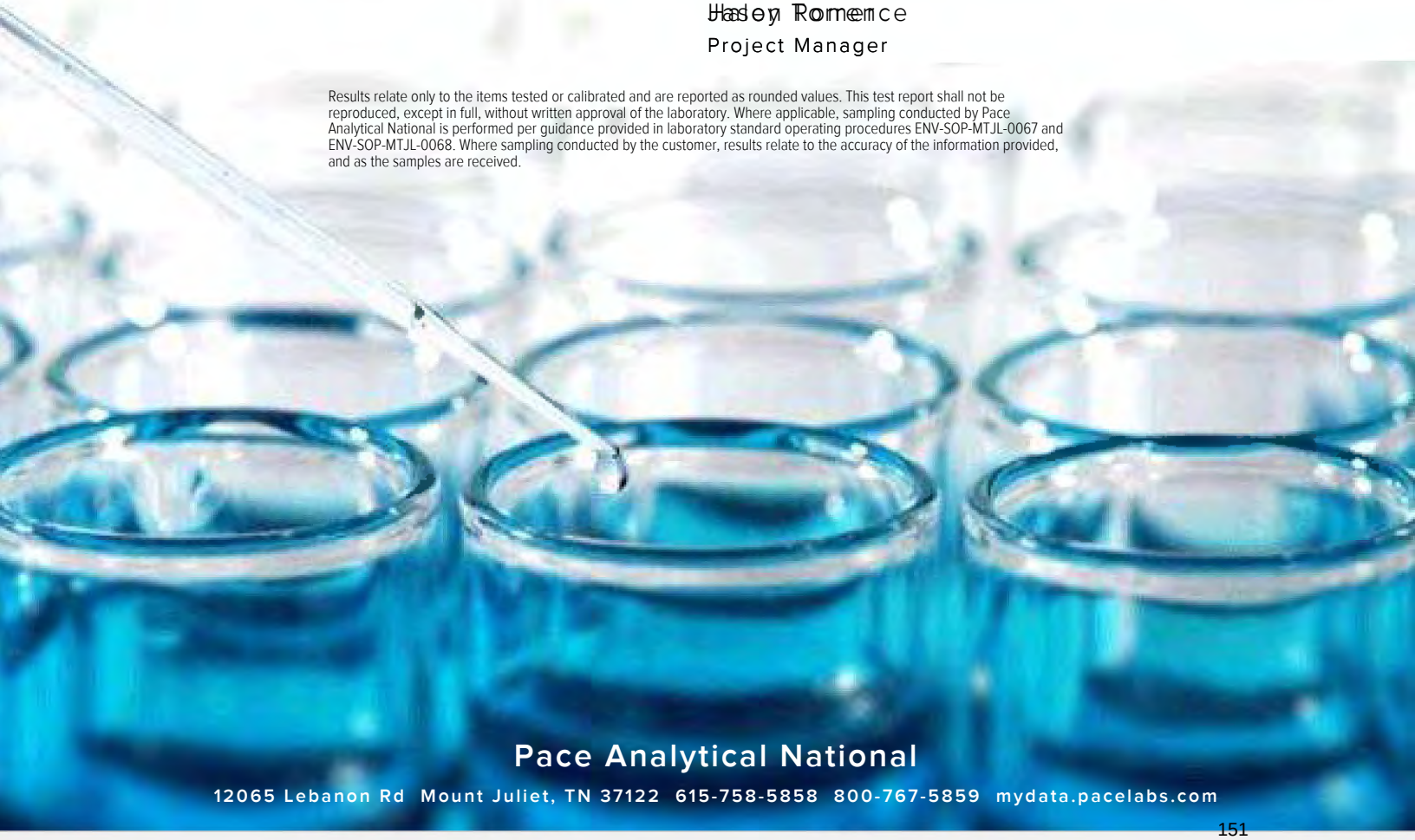


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SAMPLE SUMMARY

HD04652-01 L1730987-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/25/24 10:40	04/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277697	1	05/07/24 16:28	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04652-02 L1730987-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/25/24 12:53	04/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277697	1	05/07/24 16:28	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04652-03 L1730987-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/25/24 13:35	04/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277697	1	05/07/24 16:28	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

HD04652-04 L1730987-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/25/24 14:19	04/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2277697	1	05/07/24 16:28	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2281006	1	05/06/24 12:24	05/13/24 16:40	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2281006	1	05/06/24 12:24	05/09/24 12:14	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Hadley Romence
Project Manager

HD04652-04 SAMPLE RESULTS - 01

Collected date/time: 04/25/24 10:40 L1730987

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.28		0.321	0.782	0.557	0.290	05/13/2024 16:40	WG2277697
(T) Barium	*94.8*					*30.0-143*	*05/13/2024 16:40*	WG2277697
(T) Yttrium	*89.5*					*30.0-136*	*05/13/2024 16:40*	WG2277697

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.09		0.488	0.622	05/13/2024 16:40	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.820		0.368	0.167	0.276	0.195	05/09/2024 12:14	WG2281006
(T) Barium-133	*89.2*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04652-02 SAMPLE RESULTS - 02

Collected date/time: 04/25/24 12:53 L1730987

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.455	J	0.341	1.60	0.616	0.320	05/13/2024 16:40	WG2277697
(T) Barium	*93.0*					*30.0-143*	*05/13/2024 16:40*	WG2277697
(T) Yttrium	*92.7*					*30.0-136*	*05/13/2024 16:40*	WG2277697

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.01		0.500	0.737	05/13/2024 16:40	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.552		0.366	0.161	0.405	0.265	05/09/2024 12:14	WG2281006
(T) Barium-133	*92.0*					*30.0-143*	*05/09/2024 12:14*	WG2281006

HD04652-03 SAMPLE RESULTS - 03

Collected date/time: 04/25/24 13:35 L1730987

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.169	U	0.302	2.53	0.552	0.288	05/13/2024 16:40	WG2277697
(T) Barium	*135*					*30.0-143*	*05/13/2024 16:40*	WG2277697
(T) Yttrium	*87.4*					*30.0-136*	*05/13/2024 16:40*	WG2277697

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.667		0.419	0.607	05/13/2024 16:40	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.498		0.291	0.147	0.253	0.184	05/09/2024 12:14	WG2281006
(T) Barium-133	*105*					*30.0-143*	*05/09/2024 12:14*	WG2281006

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.417	U	0.278	2.28	0.527	0.276	05/13/2024 16:40	WG2277697
(T) Barium	*122*					*30.0-143*	*05/13/2024 16:40*	WG2277697
(T) Yttrium	*87.8*					*30.0-136*	*05/13/2024 16:40*	WG2277697

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.000	U	0.312	0.626	05/13/2024 16:40	WG2281006

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	-0.0186	U	0.141	0.0433	0.337	0.239	05/09/2024 12:14	WG2281006
(T) Barium-133	*82.4*					*30.0-143*	*05/09/2024 12:14*	WG2281006

Method Blank (MB)

(MB) R4069187-1 05/13/24 16:40

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.550		0.214	0.379	0.199
(T) Barium	*115*		*115*		
(T) Yttrium	*78.3*		*78.3*		

L1730987-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1730987-03 05/13/24 16:40 • (DUP) R4069187-5 05/13/24 16:40

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.169	0.302	0.552	0.288	-0.285	0.312	0.593	0.313	200	1.05	U	20	3
(T) Barium	*135*				*124*	*124*							
(T) Yttrium	*87.4*				*91.1*	*91.1*							

Laboratory Control Sample (LCS)

(LCS) R4069187-2 05/13/24 16:40

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.53	111	80.0-120	
(T) Barium			*106*		
(T) Yttrium			*88.7*		

L1730987-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1730987-04 05/13/24 16:40 • (MS) R4069187-3 05/13/24 16:40 • (MSD) R4069187-4 05/13/24 16:40

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.417	19.3	17.8	115	106	1	70.0-130			8.10		20
(T) Barium		*122*			*105*	*114*							
(T) Yttrium		*87.8*			*87.1*	*93.8*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M L1730987-01,02,03,04

Method Blank (MB)

(MB) R4067868-1 05/09/24 12:14

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0305	U	0.0556	0.131	0.0863
(T) Barium-133	*70.2*		*70.2*		

L1727514-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1727514-05 05/09/24 12:14 • (DUP) R4067868-5 05/09/24 12:14

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.654	0.365	0.283	0.215	0.197	0.271	0.394	0.264	108	1.01	J	20	3
(T) Barium-133	*79.3*				*87.4*	*87.4*							

Laboratory Control Sample (LCS)

(LCS) R4067868-2 05/09/24 12:14

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.38	108	80.0-120	
(T) Barium-133			*85.9*		

L1727514-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1727514-03 05/09/24 12:14 • (MS) R4067868-3 05/09/24 12:14 • (MSD) R4067868-4 05/09/24 12:14

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0347	22.4	20.8	112	104	1	75.0-125			7.41		20
(T) Barium-133		*67.4*			*75.3*	*86.8*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
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Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD04652

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LIT30987

Sample: HD04652-01
Name: OM26

Sampled: 04/25/24 10:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/08/24 16:00	10/22/24 10:40	

Sample: HD04652-02
Name: OM27

Sampled: 04/25/24 12:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/08/24 16:00	10/22/24 12:53	

Sample: HD04652-03
Name: OM28

Sampled: 04/25/24 13:35
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/08/24 16:00	10/22/24 13:35	

Sample: ~~HD04652-04~~
Name: ~~EB~~ EB-2 4/25/24 dnb

Sampled: 04/25/24 14:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	05/08/24 16:00	10/22/24 14:19	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HD04652

L1730987

H001

Amb DBAG

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
PA Screen <0.5 mR/hr:	Y N	7761 4614 4896	

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

Date Shipped: 4/29/24 Total # of Containers: 4 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
	4/29/24 0640 →		
Easton Dugan	4/30/24 0900 →		

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

ANALYTICAL REPORT

June 24, 2024

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1741430
Samples Received:	05/30/2024
Project Number:	HE04754
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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Ss: Sample Summary 3
Cn: Case Narrative 4
Sr: Sample Results 5
HE04754-01 L1741430-01 5
Qc: Quality Control Summary 6
Radiochemistry by Method 904/9320 6
Radiochemistry by Method SM7500Ra B M 7
Gl: Glossary of Terms 8
Al: Accreditations & Locations 9
Sc: Sample Chain of Custody 10

SAMPLE SUMMARY

HE04754-01 L1741430-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/28/24 15:09	05/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2299243	1	06/06/24 13:18	06/18/24 22:32	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2298855	1	06/05/24 15:02	06/18/24 22:32	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2298855	1	06/05/24 15:02	06/06/24 20:14	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 06/21/24 16:49

Project Narrative

HE04754-01 SAMPLE RESULTS - 01

Collected date/time: 05/28/24 15:09 L1741430

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.184	U	0.277	0.380	0.527	0.275	06/18/2024 22:32	WG2299243
(T) Barium	*93.0*					*30.0-143*	*06/18/2024 22:32*	WG2299243
(T) Yttrium	*101*					*30.0-136*	*06/18/2024 22:32*	WG2299243

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.433	J	0.385	0.637	06/18/2024 22:32	WG2298855

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.248	J	0.268	0.111	0.357	0.243	06/06/2024 20:14	WG2298855
(T) Barium-133	*88.9*					*30.0-143*	*06/06/2024 20:14*	WG2298855

WG2299243 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1741430-01

Method Blank (MB)

(MB) R4084580-1 06/18/24 18:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.218	U	0.183	0.363	0.190
(T) Barium	*99.7*		*99.7*		
(T) Yttrium	*91.7*		*91.7*		

L1741426-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1741426-09 06/18/24 18:36 • (DUP) R4084580-5 06/18/24 18:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.979	0.215	0.384	0.204	0.0240	0.579	1.13	0.588	190	1.55	U	20	3
(T) Barium	*111*				*119*	*119*							
(T) Yttrium	*90.7*				*97.5*	*97.5*							

Laboratory Control Sample (LCS)

(LCS) R4084580-2 06/18/24 18:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.48	89.7	80.0-120	
(T) Barium			*101*		
(T) Yttrium			*106*		

L1741036-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1741036-06 06/18/24 18:36 • (MS) R4084580-3 06/18/24 18:36 • (MSD) R4084580-4 06/18/24 18:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.373	16.9	14.6	98.7	85.2	1	70.0-130			14.3		20
(T) Barium		*98.9*			*103*	*115*							
(T) Yttrium		*94.5*			*94.2*	*99.2*							

Radiochemistry by Method SM7500Ra B M

Method Blank (MB)

(MB) R4078678-1 06/06/24 20:13

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0761	J	0.0794	0.105	0.0703
(T) Barium-133	*73.0*		*73.0*		

L1738113-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1738113-23 06/06/24 20:13 • (DUP) R4078678-5 06/06/24 20:13

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	1.39	0.472	0.234	0.178	0.332	0.219	0.183	0.143	123	2.03		20	3
(T) Barium-133	*87.9*				*87.0*	*87.0*							

Laboratory Control Sample (LCS)

(LCS) R4078678-2 06/06/24 20:13

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.07	101	80.0-120	
(T) Barium-133			*72.5*		

L1738113-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1738113-17 06/06/24 20:13 • (MS) R4078678-3 06/06/24 20:13 • (MSD) R4078678-4 06/06/24 20:13

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.735	19.7	19.7	95.0	94.8	1	75.0-125			0.254		20
(T) Barium-133		*76.7*			*76.4*	*66.6*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
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Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
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California	2932	New Mexico [1]	TN00003
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Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
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Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HE04754

A112

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L741430

Sample: HE04754-01
Name: P60 Resample

Sampled: 05/28/24 ~~13:09~~ 1509 5/29/24 dcb
Matrix: Ground Water - 01
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	06/10/24 16:00	11/24/24 13:09	

Sample Receipt Checklist — If Applicable — AMb

COC Seal Present/Intact: N — VOA Zero Headspace: N
COC Signed/Accurate: N — Pres. Correct/Check: N
Bottles arrive intact: N
Correct bottles used: N
Sufficient volume sent: N
RA Screen <0.5 mR/hr: N

7308 4400 9710

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

Date Shipped: 5/29 — Total # of Containers: ____ — Sample Origin (State): ____ — PO #: ____

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

Relinquished By	Date/Time	Received By	Date/Time
	5/29/24 1545		
		Hailey Rotuta	5/30/24 0900

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

HD028835

Section D Required Client Information

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

Valid Matrix Codes

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G505	WT	G	4/15/24	1301		4	X	X	X																		
2	G635	WT	G	4/15/24	1435		4	X	X	X																		
3	G655	WT	G	4/15/24	1156		4	X	X	X																		
4	G73L	WT	G	4/15/24	1545		4	X	X	X																		
5	OM 16	WT	G	4/15/24	1217		4	X		X																		
6	OM 17	WT	G	4/15/24	1320		4	X		X																		
7	OM 24D	WT	G	4/15/24	1053		5	X		X																		
8	OR 11	WT	G	4/15/24	1444		5	X		X																		
9	OR 11 Dup	WT	G	4/15/24	1444		5	X		X																		
10	OR 20	WT	G	4/15/24	1321		5	X		X																		
11	P36L	WT	G	4/15/24	1311		2	X		X																		
12	P36L Dup	WT	G	4/15/24	1311		2	X		X																		
13	P37L	WT	G	4/15/24	1512		2	X		X																		
14	P43L	WT	G	4/15/24	1127		2	X		X																		
15	T43L Dup	WT	G	4/15/24	1127		2	X		X																		
16	T44L	WT	G	4/15/24	1352		2	X		X																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q1 Rev 0		4/15/24	1652							
					4/15/24	1652	3.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Emberton

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 04/15/24

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

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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.

Page: 1 of 10

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

REGULATORY AGENCY

NPDES: GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-B11-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA01	WT	G	4/16/24	1257		4	X		X																		
2	BA01-Dup	WT	G	4/16/24	1257		4	X		X																		
3	BA02	WT	G	4/16/24	1130		4	X		X																		
4	BA06	WT	G	4/16/24	1432		4	X		X																		
5	GO3L	WT	G	4/16/24	1142		10	X	X	X	X	X																
6	GO4L	WT	G	4/16/24	1325		10	X	X	X	X	X																
7	GO7L	WT	G	4/16/24	1447		10	X	X	X	X	X																
8	GGGS	WT	G	4/16/24	1350		4	X	X	X																		
9	GGGS-Dup	WT	G	4/16/24	1350		4	X	X	X																		
10	G70L	WT	G	4/16/24	1054		4	X	X	X																		
11	G71S	WT	G	4/16/24	1203		4	X	X	X																		
12	G56S	WT	G	4/16/24	1503		4	X	X	X																		
13																												
14																												
15																												
16																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Seals Present/Intact (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		4/16/24	1603				4.3			
				Caly P. Jones	4/16/24	1609		Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Timberlake

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/16/24

Confidential

MD03070

CHAIN-OF-CUSTODY / Analytical Request Document

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MD03070

Page 1 of 10

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

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

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE (DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB, C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	DP-02	WT	G	4/16/24	1500		5	X		X																		
2	DMW-5	WT	G	4/16/24	1412		5	X		X																		
3	DMW-2	WT	G	4/16/24	1120		5	X		X																		
4	DP-06A	WT	G	4/16/24	1205		5	X		X																		
5	DP-14D	WT	G	4/16/24	1258		5	X		X																		
6	DP-14	WT	G	4/16/24	1022		5	X		X																		
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Seals Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q1 Rev 0		4/16/24	1609							
				Caty P. Jones	4/16/24	1609	4.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/16/24

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information | **Section B** Required Project Information | **Section C** Invoice Information | Page: 1 of 10

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

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

Site Location: STATE: IL

Requested Analysis Filtered (Y/N)

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	RBL		WT	G	4/17/24	1444		5	X		X																				
2	EBI		WT	G	4/17/24	1548		5	X		X																				
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		4/17/24	1643					5		
				Caty P. Jones	4/17/24	1643	Y	N	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HB03383

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 10

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

REGULATORY AGENCY: GROUND WATER

Site Location STATE: IL

Section D Required Client Information

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

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GW9L	WT	G	4/17/24	1207		20	X	X	X	X	X															
2	GW4L	WT	G	4/17/24	1521		10	X	X	X	X	X															
3	GS15	WT	G	4/17/24	1520		5	X	X	X																	
4	GG2L	WT	G	4/17/24	1350		4	X	X	X																	
5	GS3S	WT	G	4/17/24	1110		4	X	X	X																	
6	GS3L	WT	G	4/17/24	1127		4	X	X	X																	
7	GS6S	WT	G	4/17/24	1003		1	X																			
8	GG2L	WT	G	4/17/24	1233		5	X	X	X																	
9	GG3L	WT	G	4/17/24	1054		4	X	X	X																	
10	GG5L	WT	G	4/17/24	1530		4	X	X	X																	
11	GM22D	WT	G	4/17/24	1035		5	X	X	X																	
12	GM23D	WT	G	4/17/24	1140		5	X		X																	
13	GM25S	WT	G	4/17/24	1445		5	X		X																	
14	GR03D	WT	G	4/17/24	1352		5	X		X																	
15	GR04D	WT	G	4/17/24	1300		5	X		X																	
16	R10L	WT	G	4/17/24	1334		10	X	X	X	X	X															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q1 Rev 0		4/17/24	1643				
				Caty P. Jones	4/17/24	1643	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

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

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

* HCL vial broken in lab on receipt on 4/17/24

Confidential

HDD3624

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

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

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes (DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOLID/SOIL SL, OIL OL, WIPE WP, AIR AR, OTHER OT)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA02L		WT	G	4/18/24	1220		4	X		X																	
2	BA03		WT	G	4/18/24	1244		4	X		X																	
3	BA03L		WT	G	4/18/24	1401		4	X		X																	
4	BA04		WT	G	4/18/24	1503		4	X		X																	
5	BA05		WT	G	4/18/24	1153		4	X		X																	
6	GW6L		WT	G	4/18/24	1938		4	X	X	X																	
7	GW7L		WT	G	4/18/24	1445		4	X	X	X																	
8	GW11L		WT	G	4/18/24	1128		4	X	X	X																	
9	GW12L		WT	G	4/18/24	1234		4	X	X	X																	
10	OM01		WT	G	4/18/24	1120		5	X		X																	
11	OM01 - Dup		WT	G	4/18/24	1120		5	X		X																	
12	OM07		WT	G	4/18/24	1302		5	X		X																	
13	OR13D		WT	G	4/18/24	1349		5	X		X																	
14	OR13S		WT	G	4/18/24	1435		5	X		X																	
15	OM21		WT	G	4/18/24	1518		5	X		X																	
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		4/18/24	1635				
				Caty P. Jones	4/18/24	1435	

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Ryan Richardson
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 04/18/24

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

RADS ONLY HD03934 (G02S + G64L)

CHAIN-OF-CUSTODY / Analytical Request Document

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

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

Requested Analysis Filtered (Y/N)

ITEM #	Section D SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G02L		WT	G	4/22/24	1427		10	X	X	X	X	X																
2	G02S		WT	G	4/22/24	1523		4	X		X																		
3	G08L		WT	G	4/22/24	1321		10	X	X	X	X	X																
4	G15L		WT	G	4/22/24	1204		10	X	X	X	X	X																
5	G16L		WT	G	4/22/24	1040		10	X	X	X	X	X																
6	G59L		WT	G	4/22/24	1322		4	X	X	X																		
7	G59L - Dup		WT	G	4/22/24	1327		4	X	X	X																		
8	G64L		WT	G	4/22/24	1455		5	X	X	X																		
9	G67S		WT	G	4/22/24	1107		4	X	X	X																		
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0		4/22/24	1642							
					4/22/24	1642	7.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Aaron Kemerling				
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/22/24				

HDOH1162

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE. Valid Matrix Codes: DRINKING WATER DW, WATER W, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GO6L	WT	G	4/23/24	1136		10	X	X	X	X	X																		
2	G12L	WT	G	4/23/24	1450		10	X	X	X	X	X																		
3	G12L	WT	G	4/23/24	1450		10	X	X	X	X	X																		
4	GSOL	WT	G	4/23/24	1100		4	X	X	X																				
5	GSOS	WT	G	4/23/24	1235		5	X	X	X																				
6	GSZS	WT	G	4/23/24	1300		4	X	X	X																				
7	GSHL	WT	G	4/23/24	1155		5	X	X	X																				
8	GSSL	WT	G	4/23/24	1358		4	X	X	X																				
9	GSSS	WT	G	4/23/24	1510		4	X	X	X																				
10	POSL	WT	G	4/23/24	1032		5	X	X	X		X																		
11	RHL	WT	G	4/23/24	1220		10	X	X	X	X	X																		
12	R12L	WT	G	4/23/24	1339		10	X	X	X	X	X																		
13	Field Blank	WT	G	4/23/24	1530		10	X	X	X	X	X																		
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp at °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		4/23/24	1142							
					4/23/24	1642	9.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HD044441

MD044441

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

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

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GS4S				4/24/24	1149		5	J	J	J																		
2	GS7S					1300		1																					
3	GC1S					1250		1																					
4	GC4S					1130		1																					
5	GC0L					1140		1																					
6	GC0S					1320		1																					
7	GS1L					1120		4																					
8	GS1L Dup					1120		1																					
9	GS8L					1339		1																					
10	GS8S					1355		1																					
11	GS6L					1441		1																					
12	GS7L					1355		1																					
13	R725					1020		1																					
14	P60-1					1219		2																					
15	L103					1427		17																					
16	X301					1533		3																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0	Jim David	4/24/24	1653							
					4/24/24	1650	5.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jim David

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

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HD046 Sb

GJ

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

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

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	DM26	WT	G	4/25/24	1040		11	X	X	X																			
2	DM27	WT	G	4/25/24	1253		11	X	X	X																			
3	DM28	WT	G	4/25/24	1335		11	X	X	X																			
4	EB 2	WT	G	4/25/24	1419		11	X	X	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: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		4/25/24	1547							
				Caty P. Joyner	4/25/24	1547	9	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 04/25/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

Page: 1 of 10

REGULATORY AGENCY

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

Site Location STATE: IL

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	P 60	WT	G	5/28/24	1509		1			X																			HE04754
2																														CO
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		5/28/24	1403				2.0			
				Cody P. Jones	5/28/24	1403	—	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 05/28/24

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

August 30, 2024

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

Dear Daryl Johnson:

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

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

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

Sincerely,

Diane Billings
Project Manager

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

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HG04314

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

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

Work Order HG04591

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

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

Work Order HG04890

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

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

Work Order HG05251

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

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

Work Order HG05500

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

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

ANALYTICAL RESULTS

Sample: HG04314-01
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 07/23/24 11:37
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	400	mg/L	Q4	07/26/24 04:10	100	100	07/26/24 04:10	JSM	EPA 300.0 REV 2.1
Sulfate	930	mg/L	Q3	07/26/24 04:10	100	100	07/26/24 04:10	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	3.54	Feet		07/23/24 11:37	1		07/23/24 11:37	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		07/23/24 11:37	1		07/23/24 11:37	FIELD	Field*
Oxidation Reduction Potential	175	mV		07/23/24 11:37	1	-500	07/23/24 11:37	FIELD	Field*
pH, Field Measured	6.51	pH Units		07/23/24 11:37	1		07/23/24 11:37	FIELD	Field*
Specific Conductance, Field Measured	3610	umhos/cm		07/23/24 11:37	1		07/23/24 11:37	FIELD	Field*
Temperature, Field Measured	19.1	°C		07/23/24 11:37	1		07/23/24 11:37	FIELD	Field*
Turbidity, Field Measured	3.00	NTU		07/23/24 11:37	1	0.00	07/23/24 11:37	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 13:59	1	0.250	07/30/24 13:59	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2400	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/24 09:22	5	3.0	07/25/24 16:24	TJJ	EPA 6020A
Arsenic	3.1	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Barium	14	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Boron	19000	ug/L	Q3	07/24/24 09:22	50	100	07/29/24 11:12	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Calcium	430	mg/L	Q4	07/24/24 09:22	5	0.20	07/25/24 16:24	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/24/24 09:22	5	4.0	07/25/24 16:24	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/24/24 09:22	5	2.0	07/25/24 16:24	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Magnesium	150	mg/L	Q4	07/24/24 09:22	5	0.10	07/25/24 16:24	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/24/24 09:22	5	0.20	07/25/24 16:24	TJJ	EPA 6020A
Molybdenum	4.8	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Potassium	4.2	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:24	TJJ	EPA 6020A

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

ANALYTICAL RESULTS

Sample: HG04314-01
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 07/23/24 11:37
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Sodium	110	mg/L	Q4	07/24/24 09:22	5	0.10	07/25/24 16:24	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:24	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/24/24 09:22	1	0.020	07/25/24 16:10	LAM	EPA 6010B

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

ANALYTICAL RESULTS

Sample: HG04314-02
Name: OR11
Matrix: Ground Water - Grab

Sampled: 07/23/24 13:14
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	92	mg/L		07/26/24 04:49	25	25	07/26/24 04:49	JSM	EPA 300.0 REV 2.1
Sulfate	170	mg/L		07/26/24 04:49	25	25	07/26/24 04:49	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	30.35	Feet		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Oxidation Reduction Potential	14.0	mV		07/23/24 13:14	1	-500	07/23/24 13:14	FIELD	Field*
pH, Field Measured	6.81	pH Units		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Specific Conductance, Field Measured	1410	umhos/cm		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Temperature, Field Measured	17.1	°C		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/23/24 13:14	1	0.00	07/23/24 13:14	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Fluoride	0.263	mg/L		07/30/24 14:00	1	0.250	07/30/24 14:00	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	780	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/24 09:22	5	3.0	07/25/24 16:51	TJJ	EPA 6020A
Arsenic	2.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Barium	36	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Boron	9300	ug/L		07/24/24 09:22	10	20	07/29/24 11:39	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Calcium	140	mg/L		07/24/24 09:22	5	0.20	07/25/24 16:51	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/24/24 09:22	5	4.0	07/25/24 16:51	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/24/24 09:22	5	2.0	07/25/24 16:51	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Magnesium	63	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:51	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/24/24 09:22	5	0.20	07/25/24 16:51	TJJ	EPA 6020A
Molybdenum	6.7	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Potassium	3.5	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:51	TJJ	EPA 6020A

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

ANALYTICAL RESULTS

Sample: HG04314-02
Name: OR11
Matrix: Ground Water - Grab

Sampled: 07/23/24 13:14
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Sodium	31	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:51	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:51	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/24/24 09:22	1	0.020	07/25/24 16:13	LAM	EPA 6010B

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

ANALYTICAL RESULTS

Sample: HG04314-03
Name: OR11 Dup
Matrix: Ground Water - Grab

Sampled: 07/23/24 13:14
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	90	mg/L		07/26/24 06:06	25	25	07/26/24 06:06	JSM	EPA 300.0 REV 2.1
Sulfate	160	mg/L		07/26/24 06:06	25	25	07/26/24 06:06	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	30.35	Feet		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Oxidation Reduction Potential	14.0	mV		07/23/24 13:14	1	-500	07/23/24 13:14	FIELD	Field*
pH, Field Measured	6.81	pH Units		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Specific Conductance, Field Measured	1410	umhos/cm		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Temperature, Field Measured	17.1	°C		07/23/24 13:14	1		07/23/24 13:14	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/23/24 13:14	1	0.00	07/23/24 13:14	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	390	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Fluoride	0.260	mg/L		07/30/24 14:01	1	0.250	07/30/24 14:01	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	800	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/24 09:22	5	3.0	07/25/24 16:55	TJJ	EPA 6020A
Arsenic	2.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Barium	36	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Boron	9200	ug/L		07/24/24 09:22	10	20	07/29/24 11:42	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Calcium	140	mg/L		07/24/24 09:22	5	0.20	07/25/24 16:55	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/24/24 09:22	5	4.0	07/25/24 16:55	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/24/24 09:22	5	2.0	07/25/24 16:55	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Magnesium	63	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:55	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/24/24 09:22	5	0.20	07/25/24 16:55	TJJ	EPA 6020A
Molybdenum	6.7	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Potassium	3.5	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:55	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04314-03
Name: OR11 Dup
Matrix: Ground Water - Grab

Sampled: 07/23/24 13:14
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Sodium	31	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:55	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:55	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/24/24 09:22	1	0.020	07/25/24 16:14	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04314-04
Name: OR20
Matrix: Ground Water - Grab

Sampled: 07/23/24 14:30
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	360	mg/L		07/26/24 06:45	100	100	07/26/24 06:45	JSM	EPA 300.0 REV 2.1
Sulfate	410	mg/L		07/26/24 06:45	100	100	07/26/24 06:45	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.85	Feet		07/23/24 14:30	1		07/23/24 14:30	FIELD	Field*
Dissolved oxygen, Field	3.2	mg/L		07/23/24 14:30	1		07/23/24 14:30	FIELD	Field*
Oxidation Reduction Potential	80.0	mV		07/23/24 14:30	1	-500	07/23/24 14:30	FIELD	Field*
pH, Field Measured	7.05	pH Units		07/23/24 14:30	1		07/23/24 14:30	FIELD	Field*
Specific Conductance, Field Measured	2700	umhos/cm		07/23/24 14:30	1		07/23/24 14:30	FIELD	Field*
Temperature, Field Measured	21.5	°C		07/23/24 14:30	1		07/23/24 14:30	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/23/24 14:30	1	0.00	07/23/24 14:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	460	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/01/24 12:42	1	10	08/01/24 12:42	CFM/TMS	SM 2320 B-2011*
Fluoride	0.490	mg/L		07/30/24 14:03	1	0.250	07/30/24 14:03	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1700	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/24/24 09:22	5	3.0	07/25/24 16:59	TJJ	EPA 6020A
Arsenic	1.4	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Barium	18	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Boron	29000	ug/L		07/24/24 09:22	50	100	07/29/24 11:45	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Calcium	230	mg/L		07/24/24 09:22	5	0.20	07/25/24 16:59	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/24/24 09:22	5	4.0	07/25/24 16:59	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/24/24 09:22	5	2.0	07/25/24 16:59	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Magnesium	95	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:59	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/24/24 09:22	5	0.20	07/25/24 16:59	TJJ	EPA 6020A
Molybdenum	36	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Potassium	7.6	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:59	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04314-04
Name: OR20
Matrix: Ground Water - Grab

Sampled: 07/23/24 14:30
Received: 07/23/24 16:45
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Sodium	170	mg/L		07/24/24 09:22	5	0.10	07/25/24 16:59	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/24/24 09:22	5	1.0	07/25/24 16:59	TJJ	EPA 6020A
Lithium	0.037	mg/L		07/24/24 09:22	1	0.020	07/25/24 16:15	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-01
Name: OM07
Matrix: Ground Water - Grab

Sampled: 07/24/24 14:00
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L	Q4	07/26/24 10:26	5	5.0	07/26/24 10:26	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/26/24 10:08	1	0.250	07/26/24 10:08	JSM	EPA 300.0 REV 2.1
Sulfate	210	mg/L	Q4	07/26/24 10:44	25	25	07/26/24 10:44	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.41	Feet		07/24/24 14:00	1		07/24/24 14:00	FIELD	Field*
Dissolved oxygen, Field	0.93	mg/L		07/24/24 14:00	1		07/24/24 14:00	FIELD	Field*
Oxidation Reduction Potential	-49.0	mV		07/24/24 14:00	1	-500	07/24/24 14:00	FIELD	Field*
pH, Field Measured	7.02	pH Units		07/24/24 14:00	1		07/24/24 14:00	FIELD	Field*
Specific Conductance, Field Measured	1530	umhos/cm		07/24/24 14:00	1		07/24/24 14:00	FIELD	Field*
Temperature, Field Measured	16.6	°C		07/24/24 14:00	1		07/24/24 14:00	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/24/24 14:00	1	0.00	07/24/24 14:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	550	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	800	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 11:19	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Barium	51	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Boron	450	ug/L		07/25/24 09:05	5	10	07/29/24 13:47	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Calcium	140	mg/L		07/25/24 09:05	5	0.20	07/26/24 11:19	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/25/24 09:05	5	4.0	07/26/24 11:19	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/25/24 09:05	5	2.0	07/26/24 11:19	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Magnesium	74	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:19	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/30/24 11:55	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Potassium	1.2	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:19	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-01
Name: OM07
Matrix: Ground Water - Grab

Sampled: 07/24/24 14:00
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Sodium	58	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:19	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:19	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:35	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-02
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 07/24/24 11:34
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	44	mg/L		07/26/24 11:56	10	10	07/26/24 11:56	JSM	EPA 300.0 REV 2.1
Sulfate	280	mg/L		07/26/24 12:15	50	50	07/26/24 12:15	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.93	Feet		07/24/24 11:34	1		07/24/24 11:34	FIELD	Field*
Dissolved oxygen, Field	0.32	mg/L		07/24/24 11:34	1		07/24/24 11:34	FIELD	Field*
Oxidation Reduction Potential	-47.0	mV		07/24/24 11:34	1	-500	07/24/24 11:34	FIELD	Field*
pH, Field Measured	6.70	pH Units		07/24/24 11:34	1		07/24/24 11:34	FIELD	Field*
Specific Conductance, Field Measured	2210	umhos/cm		07/24/24 11:34	1		07/24/24 11:34	FIELD	Field*
Temperature, Field Measured	16.3	°C		07/24/24 11:34	1		07/24/24 11:34	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/24/24 11:34	1	0.00	07/24/24 11:34	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	720	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	0.255	mg/L		07/30/24 14:27	1	0.250	07/30/24 14:27	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 11:23	TJJ	EPA 6020A
Arsenic	3.8	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Barium	29	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Boron	1800	ug/L		07/25/24 09:05	5	10	07/29/24 13:50	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Calcium	110	mg/L		07/25/24 09:05	5	0.20	07/26/24 11:23	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/25/24 09:05	5	4.0	07/26/24 11:23	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/25/24 09:05	5	2.0	07/26/24 11:23	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Magnesium	59	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:23	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 11:23	TJJ	EPA 6020A
Molybdenum	8.1	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Potassium	4.5	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:23	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-02
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 07/24/24 11:34
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Sodium	250	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:23	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:23	TJJ	EPA 6020A
Lithium	0.025	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:40	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-03
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 07/24/24 12:39
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	26	mg/L		07/26/24 12:51	10	10	07/26/24 12:51	JSM	EPA 300.0 REV 2.1
Sulfate	630	mg/L		07/26/24 13:45	100	100	07/26/24 13:45	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.55	Feet		07/24/24 12:39	1		07/24/24 12:39	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		07/24/24 12:39	1		07/24/24 12:39	FIELD	Field*
Oxidation Reduction Potential	-54.0	mV		07/24/24 12:39	1	-500	07/24/24 12:39	FIELD	Field*
pH, Field Measured	6.97	pH Units		07/24/24 12:39	1		07/24/24 12:39	FIELD	Field*
Specific Conductance, Field Measured	1870	umhos/cm		07/24/24 12:39	1		07/24/24 12:39	FIELD	Field*
Temperature, Field Measured	19.5	°C		07/24/24 12:39	1		07/24/24 12:39	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/24/24 12:39	1	0.00	07/24/24 12:39	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:32	1	0.250	07/30/24 14:32	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 11:27	TJJ	EPA 6020A
Arsenic	7.1	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Barium	29	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Boron	2200	ug/L		07/25/24 09:05	5	10	07/29/24 14:07	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Calcium	250	mg/L		07/25/24 09:05	5	0.20	07/26/24 11:27	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/25/24 09:05	5	4.0	07/26/24 11:27	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/25/24 09:05	5	2.0	07/26/24 11:27	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Magnesium	110	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:27	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 11:27	TJJ	EPA 6020A
Molybdenum	8.2	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Potassium	2.8	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:27	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-03
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 07/24/24 12:39
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Sodium	42	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:27	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:27	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:41	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-04
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 07/24/24 15:13
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	220	mg/L		07/26/24 14:21	100	100	07/26/24 14:21	JSM	EPA 300.0 REV 2.1
Sulfate	520	mg/L		07/26/24 14:21	100	100	07/26/24 14:21	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.7	Feet		07/24/24 15:13	1		07/24/24 15:13	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		07/24/24 15:13	1		07/24/24 15:13	FIELD	Field*
Oxidation Reduction Potential	-97.0	mV		07/24/24 15:13	1	-500	07/24/24 15:13	FIELD	Field*
pH, Field Measured	7.03	pH Units		07/24/24 15:13	1		07/24/24 15:13	FIELD	Field*
Specific Conductance, Field Measured	2590	umhos/cm		07/24/24 15:13	1		07/24/24 15:13	FIELD	Field*
Temperature, Field Measured	18.1	°C		07/24/24 15:13	1		07/24/24 15:13	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/24/24 15:13	1	0.00	07/24/24 15:13	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	450	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:34	1	0.250	07/30/24 14:34	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1600	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 11:31	TJJ	EPA 6020A
Arsenic	12	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Barium	58	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Boron	10000	ug/L		07/25/24 09:05	20	40	07/29/24 15:04	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Calcium	300	mg/L		07/25/24 09:05	5	0.20	07/26/24 11:31	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/25/24 09:05	5	4.0	07/26/24 11:31	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/25/24 09:05	5	2.0	07/26/24 11:31	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Magnesium	100	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:31	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 11:31	TJJ	EPA 6020A
Molybdenum	2.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Potassium	3.3	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:31	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-04
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 07/24/24 15:13
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Sodium	56	mg/L		07/25/24 09:05	5	0.10	07/26/24 11:31	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 11:31	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:43	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-05
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 07/24/24 14:50
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1200	mg/L		07/26/24 14:57	500	500	07/26/24 14:57	JSM	EPA 300.0 REV 2.1
Sulfate	990	mg/L		07/26/24 14:57	500	500	07/26/24 14:57	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.15	Feet		07/24/24 14:50	1		07/24/24 14:50	FIELD	Field*
Dissolved oxygen, Field	0.39	mg/L		07/24/24 14:50	1		07/24/24 14:50	FIELD	Field*
Oxidation Reduction Potential	-24.0	mV		07/24/24 14:50	1	-500	07/24/24 14:50	FIELD	Field*
pH, Field Measured	6.29	pH Units		07/24/24 14:50	1		07/24/24 14:50	FIELD	Field*
Specific Conductance, Field Measured	6250	umhos/cm		07/24/24 14:50	1		07/24/24 14:50	FIELD	Field*
Temperature, Field Measured	17.3	°C		07/24/24 14:50	1		07/24/24 14:50	FIELD	Field*
Turbidity, Field Measured	982	NTU		07/24/24 14:50	1	0.00	07/24/24 14:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	440	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:39	1	0.250	07/30/24 14:39	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	5000	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 12:04	TJJ	EPA 6020A
Arsenic	5.8	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Barium	84	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Boron	80000	ug/L		07/25/24 09:05	100	200	07/30/24 11:59	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Calcium	680	mg/L		07/25/24 09:05	100	4.0	07/30/24 11:59	TJJ	EPA 6020A
Chromium	15	ug/L		07/25/24 09:05	5	4.0	07/26/24 12:04	TJJ	EPA 6020A
Cobalt	7.7	ug/L		07/25/24 09:05	5	2.0	07/26/24 12:04	TJJ	EPA 6020A
Lead	8.3	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Magnesium	260	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:04	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 12:04	TJJ	EPA 6020A
Molybdenum	5.3	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Potassium	13	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:04	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-05
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 07/24/24 14:50
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Sodium	230	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:04	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:04	TJJ	EPA 6020A
Lithium	0.071	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:44	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-07
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 07/24/24 11:50
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1000	mg/L		07/26/24 16:28	500	500	07/26/24 16:28	JSM	EPA 300.0 REV 2.1
Sulfate	790	mg/L		07/26/24 16:28	500	500	07/26/24 16:28	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.95	Feet		07/24/24 11:50	1		07/24/24 11:50	FIELD	Field*
Dissolved oxygen, Field	0.98	mg/L		07/24/24 11:50	1		07/24/24 11:50	FIELD	Field*
Oxidation Reduction Potential	-32.0	mV		07/24/24 11:50	1	-500	07/24/24 11:50	FIELD	Field*
pH, Field Measured	6.34	pH Units		07/24/24 11:50	1		07/24/24 11:50	FIELD	Field*
Specific Conductance, Field Measured	4530	umhos/cm		07/24/24 11:50	1		07/24/24 11:50	FIELD	Field*
Temperature, Field Measured	24.5	°C		07/24/24 11:50	1		07/24/24 11:50	FIELD	Field*
Turbidity, Field Measured	120	NTU		07/24/24 11:50	1	0.00	07/24/24 11:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:41	1	0.250	07/30/24 14:41	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4100	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 12:12	TJJ	EPA 6020A
Arsenic	11	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Barium	220	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Beryllium	1.1	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Boron	56000	ug/L		07/25/24 09:05	100	200	07/29/24 15:10	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Calcium	620	mg/L		07/25/24 09:05	100	4.0	07/30/24 12:03	TJJ	EPA 6020A
Chromium	43	ug/L		07/25/24 09:05	5	4.0	07/26/24 12:12	TJJ	EPA 6020A
Cobalt	21	ug/L		07/25/24 09:05	5	2.0	07/26/24 12:12	TJJ	EPA 6020A
Lead	15	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Magnesium	170	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:12	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 12:12	TJJ	EPA 6020A
Molybdenum	140	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Potassium	12	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:12	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-07
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 07/24/24 11:50
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.3	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Sodium	160	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:12	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:12	TJJ	EPA 6020A
Lithium	0.072	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:46	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-08
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 07/24/24 12:43
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	27	mg/L		07/26/24 17:40	5	5.0	07/26/24 17:40	JSM	EPA 300.0 REV 2.1
Sulfate	370	mg/L		07/26/24 17:58	50	50	07/26/24 17:58	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	37.61	Feet		07/24/24 12:43	1		07/24/24 12:43	FIELD	Field*
Dissolved oxygen, Field	0.37	mg/L		07/24/24 12:43	1		07/24/24 12:43	FIELD	Field*
Oxidation Reduction Potential	-57.0	mV		07/24/24 12:43	1	-500	07/24/24 12:43	FIELD	Field*
pH, Field Measured	6.50	pH Units		07/24/24 12:43	1		07/24/24 12:43	FIELD	Field*
Specific Conductance, Field Measured	1410	umhos/cm		07/24/24 12:43	1		07/24/24 12:43	FIELD	Field*
Temperature, Field Measured	27.4	°C		07/24/24 12:43	1		07/24/24 12:43	FIELD	Field*
Turbidity, Field Measured	438	NTU		07/24/24 12:43	1	0.00	07/24/24 12:43	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	620	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:42	1	0.250	07/30/24 14:42	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 12:15	TJJ	EPA 6020A
Arsenic	1.3	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Barium	28	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Boron	1900	ug/L		07/25/24 09:05	5	10	07/29/24 14:13	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Calcium	160	mg/L		07/25/24 09:05	5	0.20	07/26/24 12:15	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/25/24 09:05	5	4.0	07/26/24 12:15	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/25/24 09:05	5	2.0	07/26/24 12:15	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Magnesium	96	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:15	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 12:15	TJJ	EPA 6020A
Molybdenum	2.7	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Potassium	5.0	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:15	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-08
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 07/24/24 12:43
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Sodium	110	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:15	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:15	TJJ	EPA 6020A
Lithium	0.033	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:47	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04591-09
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 07/24/24 13:45
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	600	mg/L		07/26/24 18:34	100	100	07/26/24 18:34	JSM	EPA 300.0 REV 2.1
Sulfate	660	mg/L		07/26/24 18:34	100	100	07/26/24 18:34	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	58.02	Feet		07/24/24 13:45	1		07/24/24 13:45	FIELD	Field*
Dissolved oxygen, Field	0.44	mg/L		07/24/24 13:45	1		07/24/24 13:45	FIELD	Field*
Oxidation Reduction Potential	-8.00	mV		07/24/24 13:45	1	-500	07/24/24 13:45	FIELD	Field*
pH, Field Measured	6.24	pH Units		07/24/24 13:45	1		07/24/24 13:45	FIELD	Field*
Specific Conductance, Field Measured	3730	umhos/cm		07/24/24 13:45	1		07/24/24 13:45	FIELD	Field*
Temperature, Field Measured	17.5	°C		07/24/24 13:45	1		07/24/24 13:45	FIELD	Field*
Turbidity, Field Measured	255	NTU		07/24/24 13:45	1	0.00	07/24/24 13:45	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		07/30/24 14:44	1	0.250	07/30/24 14:44	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2800	mg/L		07/30/24 09:14	1	26	07/30/24 15:06	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/25/24 09:05	5	3.0	07/26/24 12:19	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Barium	28	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Boron	28000	ug/L		07/25/24 09:05	50	100	07/29/24 15:13	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Calcium	360	mg/L		07/25/24 09:05	5	0.20	07/26/24 12:19	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/25/24 09:05	5	4.0	07/26/24 12:19	TJJ	EPA 6020A
Cobalt	6.3	ug/L		07/25/24 09:05	5	2.0	07/26/24 12:19	TJJ	EPA 6020A
Lead	1.6	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Magnesium	200	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:19	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/25/24 09:05	5	0.20	07/26/24 12:19	TJJ	EPA 6020A
Molybdenum	2.3	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Potassium	9.1	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:19	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04591-09
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 07/24/24 13:45
Received: 07/24/24 16:47
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Sodium	120	mg/L		07/25/24 09:05	5	0.10	07/26/24 12:19	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/25/24 09:05	5	1.0	07/26/24 12:19	TJJ	EPA 6020A
Lithium	0.050	mg/L		07/25/24 09:05	1	0.020	07/25/24 15:48	LAM	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-02
Name: OM17
Matrix: Ground Water - Grab

Sampled: 07/25/24 10:50
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1.6	mg/L		07/30/24 15:27	1	1.0	07/30/24 15:27	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		07/30/24 15:27	1	0.250	07/30/24 15:27	JSM	EPA 300.0 REV 2.1
Sulfate	33	mg/L		07/30/24 15:45	5	5.0	07/30/24 15:45	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.74	Feet		07/25/24 10:50	1		07/25/24 10:50	FIELD	Field*
Dissolved oxygen, Field	1.4	mg/L		07/25/24 10:50	1		07/25/24 10:50	FIELD	Field*
Oxidation Reduction Potential	-18.0	mV		07/25/24 10:50	1	-500	07/25/24 10:50	FIELD	Field*
pH, Field Measured	6.35	pH Units		07/25/24 10:50	1		07/25/24 10:50	AJW	Field*
Specific Conductance, Field Measured	415.0	umhos/cm		07/25/24 10:50	1		07/25/24 10:50	FIELD	Field*
Temperature, Field Measured	18.7	°C		07/25/24 10:50	1		07/25/24 10:50	FIELD	Field*
Turbidity, Field Measured	362	NTU		07/25/24 10:50	1	0.00	07/25/24 10:50	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	210	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/02/24 09:08	1	10	08/02/24 09:08	CFM	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	360	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	07/30/24 16:22	TJJ	EPA 6020A
Arsenic	5.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Barium	57	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:08	TJJ	EPA 6020A
Boron	150	ug/L		07/29/24 09:30	5	10	07/31/24 13:19	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Calcium	66	mg/L		07/29/24 09:30	5	0.20	07/30/24 16:22	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:22	TJJ	EPA 6020A
Cobalt	3.5	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:22	TJJ	EPA 6020A
Lead	1.2	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Magnesium	20	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:22	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	07/31/24 13:19	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Potassium	9.4	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:22	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-02
Name: OM17
Matrix: Ground Water - Grab

Sampled: 07/25/24 10:50
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Sodium	2.7	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:22	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:22	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:47	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-03
Name: OM12
Matrix: Ground Water - Grab

Sampled: 07/25/24 11:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.6	mg/L		07/30/24 16:21	1	1.0	07/30/24 16:21	JSM	EPA 300.0 REV 2.1
Sulfate	460	mg/L		07/31/24 12:38	50	50	07/31/24 12:38	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.35	Feet		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Dissolved oxygen, Field	0.89	mg/L		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Oxidation Reduction Potential	196	mV		07/25/24 11:00	1	-500	07/25/24 11:00	FIELD	Field*
pH, Field Measured	7.20	pH Units		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Specific Conductance, Field Measured	2270	umhos/cm		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Temperature, Field Measured	18.0	°C		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/25/24 11:00	1	0.00	07/25/24 11:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	790	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/01/24 12:49	1	0.250	08/01/24 12:49	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1500	mg/L		07/26/24 13:43	1	26	07/29/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	07/30/24 16:26	TJJ	EPA 6020A
Arsenic	23	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Barium	220	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:20	TJJ	EPA 6020A
Boron	50	ug/L		07/29/24 09:30	5	10	07/31/24 13:23	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Calcium	290	mg/L		07/29/24 09:30	5	0.20	07/30/24 16:26	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:26	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:26	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Magnesium	130	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:26	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	07/31/24 13:23	TJJ	EPA 6020A
Molybdenum	2.3	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Potassium	1.3	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:26	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-03
Name: OM12
Matrix: Ground Water - Grab

Sampled: 07/25/24 11:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Sodium	15	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:26	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:26	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:48	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-07
Name: OM16
Matrix: Ground Water - Grab

Sampled: 07/25/24 12:35
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	7.1	mg/L		07/30/24 20:34	1	1.0	07/30/24 20:34	JSM	EPA 300.0 REV 2.1
Sulfate	2200	mg/L		07/31/24 13:14	500	500	07/31/24 13:14	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	26.43	Feet		07/25/24 12:35	1		07/25/24 12:35	FIELD	Field*
Dissolved oxygen, Field	0.64	mg/L		07/25/24 12:35	1		07/25/24 12:35	FIELD	Field*
Oxidation Reduction Potential	96.0	mV		07/25/24 12:35	1	-500	07/25/24 12:35	FIELD	Field*
pH, Field Measured	6.25	pH Units		07/25/24 12:35	1		07/25/24 12:35	FIELD	Field*
Specific Conductance, Field Measured	4200	umhos/cm		07/25/24 12:35	1		07/25/24 12:35	FIELD	Field*
Temperature, Field Measured	17.2	°C		07/25/24 12:35	1		07/25/24 12:35	FIELD	Field*
Turbidity, Field Measured	15.2	NTU		07/25/24 12:35	1	0.00	07/25/24 12:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	760	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/01/24 13:00	1	0.250	08/01/24 13:00	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4100	mg/L		07/30/24 10:17	1	26	07/31/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	08/01/24 17:11	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:34	TJJ	EPA 6020A
Barium	15	ug/L		07/29/24 09:30	20	4.0	07/31/24 13:31	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:26	TJJ	EPA 6020A
Boron	81	ug/L		07/29/24 09:30	20	40	07/31/24 13:31	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:34	TJJ	EPA 6020A
Calcium	590	mg/L		07/29/24 09:30	20	0.80	07/31/24 13:31	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:34	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:34	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	08/01/24 17:11	TJJ	EPA 6020A
Magnesium	390	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:34	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	08/01/24 17:11	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:34	TJJ	EPA 6020A
Potassium	1.5	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:34	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-07
Name: OM16
Matrix: Ground Water - Grab

Sampled: 07/25/24 12:35
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:34	TJJ	EPA 6020A
Sodium	26	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:34	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	08/01/24 17:11	TJJ	EPA 6020A
Lithium	0.036	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:50	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-08
Name: OR19
Matrix: Ground Water - Grab

Sampled: 07/25/24 13:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	110	mg/L		07/30/24 22:41	25	25	07/30/24 22:41	JSM	EPA 300.0 REV 2.1
Sulfate	700	mg/L		07/31/24 13:32	100	100	07/31/24 13:32	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.77	Feet		07/25/24 13:00	1		07/25/24 13:00	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		07/25/24 13:00	1		07/25/24 13:00	FIELD	Field*
Oxidation Reduction Potential	-46.0	mV		07/25/24 13:00	1	-500	07/25/24 13:00	FIELD	Field*
pH, Field Measured	7.07	pH Units		07/25/24 13:00	1		07/25/24 13:00	FIELD	Field*
Specific Conductance, Field Measured	2690	umhos/cm		07/25/24 13:00	1		07/25/24 13:00	FIELD	Field*
Temperature, Field Measured	20.9	°C		07/25/24 13:00	1		07/25/24 13:00	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/25/24 13:00	1	0.00	07/25/24 13:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	640	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	0.371	mg/L		08/01/24 13:01	1	0.250	08/01/24 13:01	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1800	mg/L		07/30/24 10:17	1	26	07/31/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	07/30/24 16:38	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Barium	12	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:29	TJJ	EPA 6020A
Boron	11000	ug/L		07/29/24 09:30	20	40	07/31/24 13:35	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Calcium	260	mg/L		07/29/24 09:30	5	0.20	07/30/24 16:38	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:38	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:38	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Magnesium	130	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:38	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	08/01/24 17:15	TJJ	EPA 6020A
Molybdenum	3.3	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Potassium	4.4	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:38	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-08
Name: OR19
Matrix: Ground Water - Grab

Sampled: 07/25/24 13:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Sodium	150	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:38	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:38	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:52	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-10
Name: OM21
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:01
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	230	mg/L		07/31/24 00:29	25	25	07/31/24 00:29	JSM	EPA 300.0 REV 2.1
Sulfate	1000	mg/L		07/31/24 14:08	250	250	07/31/24 14:08	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.63	Feet		07/25/24 14:01	1		07/25/24 14:01	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		07/25/24 14:01	1		07/25/24 14:01	FIELD	Field*
Oxidation Reduction Potential	120	mV		07/25/24 14:01	1	-500	07/25/24 14:01	FIELD	Field*
pH, Field Measured	7.20	pH Units		07/25/24 14:01	1		07/25/24 14:01	FIELD	Field*
Specific Conductance, Field Measured	3960	umhos/cm		07/25/24 14:01	1		07/25/24 14:01	FIELD	Field*
Temperature, Field Measured	18.2	°C		07/25/24 14:01	1		07/25/24 14:01	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		07/25/24 14:01	1	0.00	07/25/24 14:01	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	620	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/01/24 13:02	1	0.250	08/01/24 13:02	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2400	mg/L		07/30/24 10:17	1	26	07/31/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	5.1	ug/L		07/29/24 09:30	5	3.0	07/30/24 16:53	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:53	TJJ	EPA 6020A
Barium	18	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:53	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:35	TJJ	EPA 6020A
Boron	8100	ug/L		07/29/24 09:30	20	40	07/31/24 13:43	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:53	TJJ	EPA 6020A
Calcium	300	mg/L		07/29/24 09:30	5	0.20	07/30/24 16:53	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:53	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:53	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:53	TJJ	EPA 6020A
Magnesium	160	mg/L		07/29/24 09:30	20	0.40	07/31/24 13:43	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	08/01/24 17:19	TJJ	EPA 6020A
Molybdenum	1.8	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:53	TJJ	EPA 6020A
Potassium	10	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:53	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-10
Name: OM21
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:01
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:53	TJJ	EPA 6020A
Sodium	310	mg/L		07/29/24 09:30	20	0.40	07/31/24 13:43	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	08/01/24 17:19	TJJ	EPA 6020A
Lithium	0.040	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:53	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-11
Name: OM01
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:40
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	35	mg/L	Q4	07/31/24 16:15	5	5.0	07/31/24 16:15	JSM	EPA 300.0 REV 2.1
Sulfate	1900	mg/L		08/01/24 12:53	250	250	08/01/24 12:53	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.31	Feet		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Oxidation Reduction Potential	37.0	mV		07/25/24 14:40	1	-500	07/25/24 14:40	FIELD	Field*
pH, Field Measured	6.28	pH Units		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Specific Conductance, Field Measured	3210	umhos/cm		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Temperature, Field Measured	21.8	°C		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Turbidity, Field Measured	305	NTU		07/25/24 14:40	1	0.00	07/25/24 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	560	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/05/24 10:41	1	0.250	08/05/24 10:41	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3200	mg/L		07/30/24 10:17	1	26	07/31/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	07/30/24 16:18	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:18	TJJ	EPA 6020A
Barium	15	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 15:59	TJJ	EPA 6020A
Boron	210	ug/L		07/29/24 09:30	20	40	07/31/24 14:49	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:18	TJJ	EPA 6020A
Calcium	560	mg/L	Q4	07/29/24 09:30	20	0.80	07/31/24 14:49	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:18	TJJ	EPA 6020A
Cobalt	15	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:18	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:18	TJJ	EPA 6020A
Magnesium	250	mg/L	Q4	07/29/24 09:30	20	0.40	07/31/24 14:49	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	08/01/24 17:23	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:18	TJJ	EPA 6020A
Potassium	1.0	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:18	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-11
Name: OM01
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:40
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:18	TJJ	EPA 6020A
Sodium	30	mg/L		07/29/24 09:30	20	0.40	07/31/24 14:49	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	08/01/24 17:23	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:54	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-12
Name: OM01 Dup
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:40
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	35	mg/L		07/31/24 17:45	5	5.0	07/31/24 17:45	JSM	EPA 300.0 REV 2.1
Sulfate	1900	mg/L		08/01/24 13:11	250	250	08/01/24 13:11	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	9.31	Feet		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Oxidation Reduction Potential	37.0	mV		07/25/24 14:40	1	-500	07/25/24 14:40	FIELD	Field*
pH, Field Measured	6.28	pH Units		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Specific Conductance, Field Measured	3210	umhos/cm		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Temperature, Field Measured	21.8	°C		07/25/24 14:40	1		07/25/24 14:40	FIELD	Field*
Turbidity, Field Measured	305	NTU		07/25/24 14:40	1	0.00	07/25/24 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	580	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/05/24 10:44	1	0.250	08/05/24 10:44	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3200	mg/L		07/30/24 10:17	1	26	07/31/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	07/30/24 16:57	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:57	TJJ	EPA 6020A
Barium	15	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:57	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:38	TJJ	EPA 6020A
Boron	280	ug/L		07/29/24 09:30	20	40	07/31/24 13:47	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:57	TJJ	EPA 6020A
Calcium	550	mg/L		07/29/24 09:30	20	0.80	07/31/24 13:47	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 16:57	TJJ	EPA 6020A
Cobalt	14	ug/L		07/29/24 09:30	5	2.0	07/30/24 16:57	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:57	TJJ	EPA 6020A
Magnesium	250	mg/L		07/29/24 09:30	20	0.40	07/31/24 13:47	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	08/01/24 17:27	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:57	TJJ	EPA 6020A
Potassium	0.91	mg/L		07/29/24 09:30	5	0.10	07/30/24 16:57	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-12
Name: OM01 Dup
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:40
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 16:57	TJJ	EPA 6020A
Sodium	30	mg/L		07/29/24 09:30	20	0.40	07/31/24 13:47	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	08/01/24 17:27	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/29/24 09:30	1	0.020	08/02/24 15:59	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG04890-14
Name: BA06
Matrix: Ground Water - Grab

Sampled: 07/25/24 11:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	590	mg/L		08/01/24 13:29	100	100	08/01/24 13:29	JSM	EPA 300.0 REV 2.1
Sulfate	390	mg/L		08/01/24 13:29	100	100	08/01/24 13:29	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.35	Feet		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Oxidation Reduction Potential	-48.0	mV		07/25/24 11:00	1	-500	07/25/24 11:00	FIELD	Field*
pH, Field Measured	7.65	pH Units		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Specific Conductance, Field Measured	2061	umhos/cm		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Temperature, Field Measured	16.2	°C		07/25/24 11:00	1		07/25/24 11:00	FIELD	Field*
Turbidity, Field Measured	91.8	NTU		07/25/24 11:00	1	0.00	07/25/24 11:00	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/06/24 09:51	1	10	08/06/24 09:51	CFM	SM 2320 B-2011*
Fluoride	0.274	mg/L		08/05/24 10:45	1	0.250	08/05/24 10:45	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1900	mg/L		07/30/24 10:17	1	26	07/31/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/29/24 09:30	5	3.0	07/30/24 17:05	TJJ	EPA 6020A
Arsenic	1.7	ug/L		07/29/24 09:30	5	1.0	07/30/24 17:05	TJJ	EPA 6020A
Barium	99	ug/L		07/29/24 09:30	5	1.0	07/30/24 17:05	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/29/24 16:44	TJJ	EPA 6020A
Boron	15000	ug/L		07/29/24 09:30	20	40	07/31/24 13:54	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 17:05	TJJ	EPA 6020A
Calcium	310	mg/L		07/29/24 09:30	5	0.20	07/30/24 17:05	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/29/24 09:30	5	4.0	07/30/24 17:05	TJJ	EPA 6020A
Cobalt	3.8	ug/L		07/29/24 09:30	5	2.0	07/30/24 17:05	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 17:05	TJJ	EPA 6020A
Magnesium	200	mg/L		07/29/24 09:30	20	0.40	07/31/24 13:54	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/29/24 09:30	5	0.20	08/01/24 17:31	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		07/29/24 09:30	5	1.0	07/30/24 17:05	TJJ	EPA 6020A
Potassium	0.55	mg/L		07/29/24 09:30	5	0.10	07/30/24 17:05	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG04890-14
Name: BA06
Matrix: Ground Water - Grab

Sampled: 07/25/24 11:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/29/24 09:30	5	1.0	07/30/24 17:05	TJJ	EPA 6020A
Sodium	16	mg/L		07/29/24 09:30	20	0.40	07/31/24 13:54	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/29/24 09:30	5	1.0	08/01/24 17:31	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/29/24 09:30	1	0.020	08/02/24 16:01	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG05251-06
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 07/29/24 12:15
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	900	mg/L		08/02/24 19:01	100	100	08/02/24 19:01	JSM	EPA 300.0 REV 2.1
Sulfate	950	mg/L		08/05/24 14:27	250	250	08/05/24 14:27	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	13.3	Feet		07/29/24 12:15	1		07/29/24 12:15	FIELD	Field*
Dissolved oxygen, Field	2.5	mg/L		07/29/24 12:15	1		07/29/24 12:15	FIELD	Field*
Oxidation Reduction Potential	-38.0	mV		07/29/24 12:15	1	-500	07/29/24 12:15	FIELD	Field*
pH, Field Measured	6.49	pH Units		07/29/24 12:15	1		07/29/24 12:15	FIELD	Field*
Specific Conductance, Field Measured	4190	umhos/cm		07/29/24 12:15	1		07/29/24 12:15	FIELD	Field*
Temperature, Field Measured	20.2	°C		07/29/24 12:15	1		07/29/24 12:15	FIELD	Field*
Turbidity, Field Measured	919	NTU		07/29/24 12:15	1	0.00	07/29/24 12:15	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	280	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/07/24 13:54	1	0.250	08/07/24 13:54	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3300	mg/L		08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/30/24 09:17	5	3.0	08/02/24 16:14	TJJ	EPA 6020A
Arsenic	9.8	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Barium	32	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Boron	100000	ug/L		07/30/24 09:17	100	200	08/06/24 14:35	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Calcium	600	mg/L		07/30/24 09:17	100	4.0	08/06/24 14:35	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/30/24 09:17	5	4.0	08/02/24 16:14	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		07/30/24 09:17	5	2.0	08/02/24 16:14	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Magnesium	150	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:14	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/30/24 09:17	5	0.20	08/02/24 16:14	TJJ	EPA 6020A
Molybdenum	110	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Potassium	3.3	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:14	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-06
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 07/29/24 12:15
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Sodium	100	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:14	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:14	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/30/24 09:17	1	0.020	08/02/24 15:35	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG05251-07
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 07/29/24 13:51
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	17	mg/L		08/02/24 19:40	5	5.0	08/02/24 19:40	JSM	EPA 300.0 REV 2.1
Sulfate	140	mg/L		08/02/24 19:59	25	25	08/02/24 19:59	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.47	Feet		07/29/24 13:51	1		07/29/24 13:51	FIELD	Field*
Dissolved oxygen, Field	0.64	mg/L		07/29/24 13:51	1		07/29/24 13:51	FIELD	Field*
Oxidation Reduction Potential	3.00	mV		07/29/24 13:51	1	-500	07/29/24 13:51	FIELD	Field*
pH, Field Measured	6.51	pH Units		07/29/24 13:51	1		07/29/24 13:51	FIELD	Field*
Specific Conductance, Field Measured	1170	umhos/cm		07/29/24 13:51	1		07/29/24 13:51	FIELD	Field*
Temperature, Field Measured	23.7	°C		07/29/24 13:51	1		07/29/24 13:51	FIELD	Field*
Turbidity, Field Measured	48.7	NTU		07/29/24 13:51	1	0.00	07/29/24 13:51	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/07/24 13:55	1	0.250	08/07/24 13:55	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	730	mg/L		08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/30/24 09:17	5	3.0	08/02/24 16:18	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Barium	51	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Boron	69	ug/L		07/30/24 09:17	5	10	08/06/24 13:43	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Calcium	150	mg/L		07/30/24 09:17	5	0.20	08/02/24 16:18	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/30/24 09:17	5	4.0	08/02/24 16:18	TJJ	EPA 6020A
Cobalt	9.8	ug/L		07/30/24 09:17	5	2.0	08/02/24 16:18	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Magnesium	73	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:18	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/30/24 09:17	5	0.20	08/02/24 16:18	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Potassium	0.57	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:18	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-07
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 07/29/24 13:51
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Sodium	14	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:18	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:18	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/30/24 09:17	1	0.020	08/02/24 15:36	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG05251-08
Name: OR02
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:52
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	220	mg/L		08/02/24 20:57	50	50	08/02/24 20:57	JSM	EPA 300.0 REV 2.1
Sulfate	230	mg/L		08/02/24 20:57	50	50	08/02/24 20:57	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.03	Feet		07/29/24 14:52	1		07/29/24 14:52	FIELD	Field*
Dissolved oxygen, Field	0.38	mg/L		07/29/24 14:52	1		07/29/24 14:52	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		07/29/24 14:52	1	-500	07/29/24 14:52	FIELD	Field*
pH, Field Measured	6.48	pH Units		07/29/24 14:52	1		07/29/24 14:52	FIELD	Field*
Specific Conductance, Field Measured	1910	umhos/cm		07/29/24 14:52	1		07/29/24 14:52	FIELD	Field*
Temperature, Field Measured	18.8	°C		07/29/24 14:52	1		07/29/24 14:52	FIELD	Field*
Turbidity, Field Measured	1.60	NTU		07/29/24 14:52	1	0.00	07/29/24 14:52	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/07/24 07:58	1	10	08/07/24 07:58	CFM	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/07/24 13:57	1	0.250	08/07/24 13:57	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		08/01/24 09:40	1	26	08/02/24 00:00	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/30/24 09:17	5	3.0	08/02/24 16:22	TJJ	EPA 6020A
Arsenic	2.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Barium	28	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Boron	4900	ug/L		07/30/24 09:17	5	10	08/06/24 13:47	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Calcium	200	mg/L		07/30/24 09:17	5	0.20	08/02/24 16:22	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		07/30/24 09:17	5	4.0	08/02/24 16:22	TJJ	EPA 6020A
Cobalt	2.9	ug/L		07/30/24 09:17	5	2.0	08/02/24 16:22	TJJ	EPA 6020A
Lead	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Magnesium	78	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:22	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/30/24 09:17	5	0.20	08/02/24 16:22	TJJ	EPA 6020A
Molybdenum	2.2	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Potassium	1.9	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:22	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05251-08
Name: OR02
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:52
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Sodium	100	mg/L		07/30/24 09:17	5	0.10	08/02/24 16:22	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/30/24 09:17	5	1.0	08/02/24 16:22	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		07/30/24 09:17	1	0.020	08/02/24 15:37	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: HG05500-07
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 07/30/24 10:04
Received: 07/30/24 15:54
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1400	mg/L		08/05/24 17:10	250	250	08/05/24 17:10	JSM	EPA 300.0 REV 2.1
Sulfate	630	mg/L		08/05/24 17:10	250	250	08/05/24 17:10	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	44.6	Feet		07/30/24 10:04	1		07/30/24 10:04	FIELD	Field*
Dissolved oxygen, Field	0.61	mg/L		07/30/24 10:04	1		07/30/24 10:04	FIELD	Field*
Oxidation Reduction Potential	-26.0	mV		07/30/24 10:04	1	-500	07/30/24 10:04	FIELD	Field*
pH, Field Measured	6.30	pH Units		07/30/24 10:04	1		07/30/24 10:04	FIELD	Field*
Specific Conductance, Field Measured	5430	umhos/cm		07/30/24 10:04	1		07/30/24 10:04	FIELD	Field*
Temperature, Field Measured	17.4	°C		07/30/24 10:04	1		07/30/24 10:04	FIELD	Field*
Turbidity, Field Measured	89.1	NTU		07/30/24 10:04	1	0.00	07/30/24 10:04	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		08/08/24 08:20	1	10	08/08/24 08:20	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		08/08/24 08:20	1	10	08/08/24 08:20	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		08/12/24 14:48	1	0.250	08/12/24 14:48	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4000	mg/L		08/05/24 10:28	1	26	08/06/24 15:01	LAL2	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		07/31/24 09:32	5	3.0	08/02/24 17:31	TJJ	EPA 6020A
Arsenic	6.5	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Barium	110	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Boron	57000	ug/L		07/31/24 09:32	100	200	08/07/24 13:06	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Calcium	630	mg/L		07/31/24 09:32	100	4.0	08/07/24 13:06	TJJ	EPA 6020A
Chromium	29	ug/L		07/31/24 09:32	5	4.0	08/02/24 17:31	TJJ	EPA 6020A
Cobalt	9.9	ug/L		07/31/24 09:32	5	2.0	08/02/24 17:31	TJJ	EPA 6020A
Lead	10	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Magnesium	300	mg/L		07/31/24 09:32	5	0.10	08/02/24 17:31	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		07/31/24 09:32	5	0.20	08/02/24 17:31	TJJ	EPA 6020A
Molybdenum	6.4	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Potassium	12	mg/L		07/31/24 09:32	5	0.10	08/02/24 17:31	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HG05500-07
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 07/30/24 10:04
Received: 07/30/24 15:54
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.2	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Sodium	180	mg/L		07/31/24 09:32	5	0.10	08/02/24 17:31	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		07/31/24 09:32	5	1.0	08/02/24 17:31	TJJ	EPA 6020A
Lithium	0.058	mg/L		07/31/24 09:32	1	0.020	08/02/24 16:19	TJJ	EPA 6010B

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B438838 - SW 3015 - EPA 6010B									
Blank (B438838-BLK1)				Prepared: 07/24/24 Analyzed: 07/25/24					
Lithium	< 0.020	mg/L							
LCS (B438838-BS1)				Prepared: 07/24/24 Analyzed: 07/25/24					
Lithium	0.538	mg/L		0.5556		97	80-120		
Matrix Spike (B438838-MS1)	**Sample: HG04314-01**			Prepared: 07/24/24 Analyzed: 07/25/24					
Lithium	0.522	mg/L		0.5556	0.00939	92	75-125		
Matrix Spike Dup (B438838-MSD1)	**Sample: HG04314-01**			Prepared: 07/24/24 Analyzed: 07/25/24					
Lithium	0.512	mg/L		0.5556	0.00939	90	75-125	2	20
Batch B438838 - SW 3015 - EPA 6020A									
Blank (B438838-BLK1)				Prepared: 07/24/24 Analyzed: 07/25/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B438838-BS1)				Prepared: 07/24/24 Analyzed: 07/26/24					
Antimony	547	ug/L		555.6		98	80-120		
Arsenic	539	ug/L		555.6		97	80-120		
Barium	562	ug/L		555.6		101	80-120		
Beryllium	557	ug/L		555.6		100	80-120		
Boron	544	ug/L		555.6		98	80-120		
Cadmium	538	ug/L		555.6		97	80-120		
Calcium	5.68	mg/L		5.556		102	80-120		
Chromium	552	ug/L		555.6		99	80-120		
Cobalt	542	ug/L		555.6		98	80-120		
Lead	528	ug/L		555.6		95	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Mercury	53.6	ug/L		55.56		96	80-120		
Molybdenum	526	ug/L		555.6		95	80-120		
Potassium	5.61	mg/L		5.556		101	80-120		
Selenium	555	ug/L		555.6		100	80-120		
Sodium	5.68	mg/L		5.556		102	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B438838-BS1)				Prepared: 07/24/24 Analyzed: 07/26/24					
Thallium	520	ug/L		555.6		94	80-120		
Matrix Spike (B438838-MS1)	**Sample: HG04314-01**			Prepared: 07/24/24 Analyzed: 07/25/24					
Antimony	545	ug/L		555.6	ND	98	75-125		
Arsenic	555	ug/L		555.6	3.12	99	75-125		
Barium	560	ug/L		555.6	14.3	98	75-125		
Beryllium	554	ug/L		555.6	ND	100	75-125		
Boron	18600	ug/L	Q1	555.6	18700	NR	75-125		
Cadmium	545	ug/L		555.6	ND	98	75-125		
Calcium	406	mg/L	Q4	5.556	430	NR	75-125		
Chromium	553	ug/L		555.6	ND	99	75-125		
Cobalt	533	ug/L		555.6	ND	96	75-125		
Lead	531	ug/L		555.6	ND	96	75-125		
Magnesium	146	mg/L	Q4	5.556	150	NR	75-125		
Mercury	53.1	ug/L		55.56	ND	96	75-125		
Molybdenum	559	ug/L		555.6	4.85	100	75-125		
Potassium	9.37	mg/L		5.556	4.20	93	75-125		
Selenium	562	ug/L		555.6	ND	101	75-125		
Sodium	108	mg/L	Q4	5.556	110	NR	75-125		
Thallium	513	ug/L		555.6	ND	92	75-125		
Matrix Spike Dup (B438838-MSD1)	**Sample: HG04314-01**			Prepared: 07/24/24 Analyzed: 07/25/24					
Antimony	546	ug/L		555.6	ND	98	75-125	0.09	20
Arsenic	549	ug/L		555.6	3.12	98	75-125	1	20
Barium	554	ug/L		555.6	14.3	97	75-125	0.9	20
Beryllium	551	ug/L		555.6	ND	99	75-125	0.5	20
Boron	18700	ug/L	Q2	555.6	18700	13	75-125	0.5	20
Cadmium	537	ug/L		555.6	ND	97	75-125	2	20
Calcium	409	mg/L	Q4	5.556	430	NR	75-125	0.7	20
Chromium	548	ug/L		555.6	ND	99	75-125	0.8	20
Cobalt	525	ug/L		555.6	ND	94	75-125	2	20
Lead	530	ug/L		555.6	ND	95	75-125	0.08	20
Magnesium	145	mg/L	Q4	5.556	150	NR	75-125	0.6	20
Mercury	53.4	ug/L		55.56	ND	96	75-125	0.6	20
Molybdenum	549	ug/L		555.6	4.85	98	75-125	2	20
Potassium	9.32	mg/L		5.556	4.20	92	75-125	0.5	20
Selenium	559	ug/L		555.6	ND	101	75-125	0.5	20
Sodium	108	mg/L	Q4	5.556	110	NR	75-125	0.2	20
Thallium	513	ug/L		555.6	ND	92	75-125	0.02	20
Batch B438965 - SW 3015 - EPA 6010B									
Blank (B438965-BLK1)				Prepared & Analyzed: 07/25/24					
Lithium	< 0.020	mg/L							
LCS (B438965-BS1)				Prepared & Analyzed: 07/25/24					
Lithium	0.510	mg/L		0.5556		92	80-120		
Matrix Spike (B438965-MS1)	**Sample: HG04591-01**			Prepared & Analyzed: 07/25/24					
Lithium	0.509	mg/L		0.5556	ND	92	75-125		
Matrix Spike Dup (B438965-MSD1)	**Sample: HG04591-01**			Prepared & Analyzed: 07/25/24					
Lithium	0.522	mg/L		0.5556	ND	94	75-125	3	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B438965 - SW 3015 - EPA 6020A									
Blank (B438965-BLK1)				Prepared: 07/25/24 Analyzed: 07/26/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B438965-BS1)				Prepared: 07/25/24 Analyzed: 07/26/24					
Antimony	559	ug/L		555.6		101	80-120		
Arsenic	548	ug/L		555.6		99	80-120		
Barium	567	ug/L		555.6		102	80-120		
Beryllium	547	ug/L		555.6		98	80-120		
Boron	545	ug/L		555.6		98	80-120		
Cadmium	554	ug/L		555.6		100	80-120		
Calcium	5.71	mg/L		5.556		103	80-120		
Chromium	559	ug/L		555.6		101	80-120		
Cobalt	545	ug/L		555.6		98	80-120		
Lead	536	ug/L		555.6		97	80-120		
Magnesium	5.98	mg/L		5.556		108	80-120		
Mercury	54.8	ug/L		55.56		99	80-120		
Molybdenum	549	ug/L		555.6		99	80-120		
Potassium	5.64	mg/L		5.556		101	80-120		
Selenium	550	ug/L		555.6		99	80-120		
Sodium	5.92	mg/L		5.556		106	80-120		
Thallium	536	ug/L		555.6		96	80-120		
Matrix Spike (B438965-MS1)	**Sample: HG04591-01**			Prepared: 07/25/24 Analyzed: 07/26/24					
Antimony	561	ug/L		555.6	ND	101	75-125		
Arsenic	549	ug/L		555.6	ND	99	75-125		
Barium	603	ug/L		555.6	50.6	99	75-125		
Beryllium	523	ug/L		555.6	ND	94	75-125		
Boron	992	ug/L		555.6	455	97	75-125		
Cadmium	548	ug/L		555.6	ND	99	75-125		
Calcium	140	mg/L		5.556	136	83	75-125		
Chromium	548	ug/L		555.6	ND	99	75-125		
Cobalt	523	ug/L		555.6	1.94	94	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B438965-MS1)	**Sample: HG04591-01**			Prepared: 07/25/24 Analyzed: 07/26/24					
Lead	518	ug/L		555.6	ND	93	75-125		
Magnesium	77.5	mg/L	Q4	5.556	73.6	70	75-125		
Mercury	56.5	ug/L		55.56	ND	102	75-125		
Molybdenum	560	ug/L		555.6	1.13	101	75-125		
Potassium	6.67	mg/L		5.556	1.20	98	75-125		
Selenium	553	ug/L		555.6	ND	99	75-125		
Sodium	62.5	mg/L		5.556	58.4	73	75-125		
Thallium	518	ug/L		555.6	ND	93	75-125		
Matrix Spike Dup (B438965-MSD1)	**Sample: HG04591-01**			Prepared: 07/25/24 Analyzed: 07/26/24					
Antimony	574	ug/L		555.6	ND	103	75-125	2	20
Arsenic	559	ug/L		555.6	ND	101	75-125	2	20
Barium	620	ug/L		555.6	50.6	102	75-125	3	20
Beryllium	518	ug/L		555.6	ND	93	75-125	0.9	20
Boron	1030	ug/L		555.6	455	103	75-125	4	20
Cadmium	556	ug/L		555.6	ND	100	75-125	2	20
Calcium	143	mg/L	Q4	5.556	136	129	75-125	2	20
Chromium	558	ug/L		555.6	ND	100	75-125	2	20
Cobalt	532	ug/L		555.6	1.94	95	75-125	2	20
Lead	522	ug/L		555.6	ND	94	75-125	0.7	20
Magnesium	78.0	mg/L		5.556	73.6	79	75-125	0.6	20
Mercury	57.1	ug/L		55.56	ND	103	75-125	1	20
Molybdenum	566	ug/L		555.6	1.13	102	75-125	1	20
Potassium	6.75	mg/L		5.556	1.20	100	75-125	1	20
Selenium	558	ug/L		555.6	ND	100	75-125	0.9	20
Sodium	62.7	mg/L		5.556	58.4	78	75-125	0.4	20
Thallium	519	ug/L		555.6	ND	93	75-125	0.3	20
Batch B439147 - No Prep - SM 2540 C-2011									
Blank (B439147-BLK1)				Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439147-BS1)				Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	963	mg/L		1000		96	84.4-107		
Duplicate (B439147-DUP1)	**Sample: HG04314-01**			Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	2500	mg/L			2400			4	5
Duplicate (B439147-DUP2)	**Sample: HG04314-11**			Prepared: 07/26/24 Analyzed: 07/29/24					
Solids - total dissolved solids (TDS)	725	mg/L			700			4	5
Batch B439234 - SW 3015 - EPA 6010B									
Blank (B439234-BLK1)				Prepared: 07/29/24 Analyzed: 08/02/24					
Lithium	< 0.020	mg/L							
LCS (B439234-BS1)				Prepared: 07/29/24 Analyzed: 08/02/24					
Lithium	0.567	mg/L		0.5556		102	80-120		
Matrix Spike (B439234-MS1)	**Sample: HG04890-11**			Prepared: 07/29/24 Analyzed: 08/02/24					
Lithium	0.516	mg/L		0.5556	ND	93	75-125		
Matrix Spike Dup (B439234-MSD1)	**Sample: HG04890-11**			Prepared: 07/29/24 Analyzed: 08/02/24					
Lithium	0.518	mg/L		0.5556	ND	93	75-125	0.5	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B439234 - SW 3015 - EPA 6020A									
Blank (B439234-BLK1)				Prepared: 07/29/24 Analyzed: 07/30/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B439234-BS1)				Prepared: 07/29/24 Analyzed: 07/30/24					
Antimony	501	ug/L		555.6		90	80-120		
Arsenic	553	ug/L		555.6		100	80-120		
Barium	529	ug/L		555.6		95	80-120		
Beryllium	541	ug/L		555.6		97	80-120		
Boron	482	ug/L		555.6		87	80-120		
Cadmium	537	ug/L		555.6		97	80-120		
Calcium	5.56	mg/L		5.556		100	80-120		
Chromium	543	ug/L		555.6		98	80-120		
Cobalt	564	ug/L		555.6		102	80-120		
Lead	585	ug/L		555.6		105	80-120		
Magnesium	6.29	mg/L		5.556		113	80-120		
Mercury	54.1	ug/L		55.56		97	80-120		
Molybdenum	519	ug/L		555.6		93	80-120		
Potassium	5.66	mg/L		5.556		102	80-120		
Selenium	553	ug/L		555.6		100	80-120		
Sodium	6.24	mg/L		5.556		112	80-120		
Thallium	587	ug/L		555.6		106	80-120		
Matrix Spike (B439234-MS1)	**Sample: HG04890-11**			Prepared: 07/29/24 Analyzed: 07/31/24					
Antimony	543	ug/L		555.6	ND	98	75-125		
Arsenic	545	ug/L		555.6	ND	98	75-125		
Barium	554	ug/L		555.6	15.4	97	75-125		
Beryllium	548	ug/L		555.6	ND	99	75-125		
Boron	708	ug/L		555.6	213	89	75-125		
Cadmium	526	ug/L		555.6	ND	95	75-125		
Calcium	556	mg/L	Q4	5.556	565	NR	75-125		
Chromium	537	ug/L		555.6	ND	97	75-125		
Cobalt	544	ug/L		555.6	14.6	95	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B439234-MS1)	**Sample: HG04890-11**			Prepared: 07/29/24 Analyzed: 07/31/24					
Lead	550	ug/L		555.6	ND	99	75-125		
Magnesium	259	mg/L	Q4	5.556	250	156	75-125		
Mercury	53.4	ug/L		55.56	ND	96	75-125		
Molybdenum	531	ug/L		555.6	ND	96	75-125		
Potassium	6.39	mg/L		5.556	1.02	97	75-125		
Selenium	561	ug/L		555.6	ND	101	75-125		
Sodium	35.8	mg/L		5.556	29.7	109	75-125		
Thallium	548	ug/L		555.6	ND	99	75-125		
Matrix Spike Dup (B439234-MSD1)	**Sample: HG04890-11**			Prepared: 07/29/24 Analyzed: 07/30/24					
Antimony	502	ug/L		555.6	ND	90	75-125	8	20
Arsenic	556	ug/L		555.6	ND	100	75-125	2	20
Barium	543	ug/L		555.6	15.4	95	75-125	2	20
Beryllium	543	ug/L		555.6	ND	98	75-125	0.8	20
Boron	704	ug/L		555.6	213	88	75-125	0.6	20
Cadmium	538	ug/L		555.6	ND	97	75-125	2	20
Calcium	558	mg/L	Q4	5.556	565	NR	75-125	0.5	20
Chromium	548	ug/L		555.6	ND	99	75-125	2	20
Cobalt	558	ug/L		555.6	14.6	98	75-125	2	20
Lead	557	ug/L		555.6	0.228	100	75-125	1	20
Magnesium	259	mg/L	Q4	5.556	250	170	75-125	0.3	20
Mercury	54.7	ug/L		55.56	ND	98	75-125	2	20
Molybdenum	536	ug/L		555.6	ND	97	75-125	1	20
Potassium	6.51	mg/L		5.556	1.02	99	75-125	2	20
Selenium	559	ug/L		555.6	ND	101	75-125	0.4	20
Sodium	35.7	mg/L		5.556	29.7	108	75-125	0.2	20
Thallium	562	ug/L		555.6	ND	101	75-125	2	20
Batch B439246 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439246-CCB1)				Prepared & Analyzed: 07/25/24					
Chloride	0.958	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B439246-CCV1)				Prepared & Analyzed: 07/25/24					
Sulfate	4.99	mg/L		5.000		100	90-110		
Chloride	4.78	mg/L		5.000		96	90-110		
Matrix Spike (B439246-MS2)	**Sample: HG04314-01**			Prepared & Analyzed: 07/26/24					
Sulfate	1.67	mg/L	Q1	1.500	934	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	400	NR	80-120		
Matrix Spike (B439246-MS3)	**Sample: HG04314-11**			Prepared & Analyzed: 07/26/24					
Chloride	< 1.0	mg/L	Q4	1.500	20	NR	80-120		
Sulfate	1.65	mg/L	Q1	1.500	150	NR	80-120		
Matrix Spike Dup (B439246-MSD2)	**Sample: HG04314-01**			Prepared & Analyzed: 07/26/24					
Sulfate	1.68	mg/L	Q2	1.500	934	NR	80-120		20
Chloride	1.0E9	mg/L	Q4	1.500	400	NR	80-120		20
Matrix Spike Dup (B439246-MSD3)	**Sample: HG04314-11**			Prepared & Analyzed: 07/26/24					
Chloride	< 1.0	mg/L	Q4	1.500	20	NR	80-120		20
Sulfate	1.65	mg/L	Q2	1.500	150	NR	80-120		20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B439262 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439262-CCB1)				Prepared & Analyzed: 07/26/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B439262-CCV1)				Prepared & Analyzed: 07/26/24					
Fluoride	5.13	mg/L		5.000		103	90-110		
Chloride	4.98	mg/L		5.000		100	90-110		
Sulfate	4.81	mg/L		5.000		96	90-110		
Matrix Spike (B439262-MS1)	**Sample: HG04591-01**			Prepared & Analyzed: 07/26/24					
Sulfate	1.00E9	mg/L	Q4	1.500	214	NR	80-120		
Fluoride	1.95	mg/L		1.500	0.232	115	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Matrix Spike (B439262-MS2)	**Sample: HG04591-11**			Prepared & Analyzed: 07/26/24					
Sulfate	1.00E9	mg/L	Q4	1.500	204	NR	80-120		
Fluoride	1.90	mg/L		1.500	0.240	110	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	15	NR	80-120		
Matrix Spike Dup (B439262-MSD1)	**Sample: HG04591-01**			Prepared & Analyzed: 07/26/24					
Sulfate	1.00E9	mg/L	Q4	1.500	214	NR	80-120	0	20
Fluoride	1.92	mg/L		1.500	0.232	113	80-120	2	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Matrix Spike Dup (B439262-MSD2)	**Sample: HG04591-11**			Prepared & Analyzed: 07/26/24					
Fluoride	1.87	mg/L		1.500	0.240	109	80-120	1	20
Sulfate	1.00E9	mg/L	Q4	1.500	204	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	15	NR	80-120	0	20
Batch B439343 - No Prep - SM 2540 C-2011									
Blank (B439343-BLK1)				Prepared & Analyzed: 07/30/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439343-BS1)				Prepared & Analyzed: 07/30/24					
Solids - total dissolved solids (TDS)	973	mg/L		1000		97	84.4-107		
Duplicate (B439343-DUP1)	**Sample: HG04591-01**			Prepared & Analyzed: 07/30/24					
Solids - total dissolved solids (TDS)	810	mg/L			795			2	5
Duplicate (B439343-DUP2)	**Sample: HG04591-11**			Prepared & Analyzed: 07/30/24					
Solids - total dissolved solids (TDS)	670	mg/L			650			3	5
Batch B439349 - SW 3015 - EPA 6010B									
Blank (B439349-BLK1)				Prepared: 07/30/24 Analyzed: 08/02/24					
Lithium	< 0.020	mg/L							
LCS (B439349-BS1)				Prepared: 07/30/24 Analyzed: 08/02/24					
Lithium	0.550	mg/L		0.5556		99	80-120		
Batch B439349 - SW 3015 - EPA 6020A									
Blank (B439349-BLK1)				Prepared: 07/30/24 Analyzed: 08/02/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B439349-BLK1)				Prepared: 07/30/24 Analyzed: 08/02/24					
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B439349-BS1)				Prepared: 07/30/24 Analyzed: 08/02/24					
Antimony	483	ug/L		555.6		87	80-120		
Arsenic	509	ug/L		555.6		92	80-120		
Barium	495	ug/L		555.6		89	80-120		
Beryllium	528	ug/L		555.6		95	80-120		
Boron	497	ug/L		555.6		89	80-120		
Cadmium	502	ug/L		555.6		90	80-120		
Calcium	5.36	mg/L		5.556		96	80-120		
Chromium	503	ug/L		555.6		90	80-120		
Cobalt	509	ug/L		555.6		92	80-120		
Lead	521	ug/L		555.6		94	80-120		
Magnesium	5.62	mg/L		5.556		101	80-120		
Mercury	49.6	ug/L		55.56		89	80-120		
Molybdenum	500	ug/L		555.6		90	80-120		
Potassium	5.19	mg/L		5.556		93	80-120		
Selenium	528	ug/L		555.6		95	80-120		
Sodium	5.51	mg/L		5.556		99	80-120		
Thallium	505	ug/L		555.6		91	80-120		
Matrix Spike (B439349-MS1)	**Sample: HG05251-01**			Prepared: 07/30/24 Analyzed: 08/02/24					
Antimony	465	ug/L		555.6	ND	84	75-125		
Arsenic	501	ug/L		555.6	ND	90	75-125		
Barium	552	ug/L		555.6	80.7	85	75-125		
Beryllium	519	ug/L		555.6	ND	93	75-125		
Boron	516	ug/L		555.6	26.8	88	75-125		
Cadmium	493	ug/L		555.6	ND	89	75-125		
Calcium	107	mg/L	Q4	5.556	118	NR	75-125		
Chromium	489	ug/L		555.6	ND	88	75-125		
Cobalt	481	ug/L		555.6	0.556	86	75-125		
Lead	506	ug/L		555.6	1.42	91	75-125		
Magnesium	52.6	mg/L	Q4	5.556	52.7	NR	75-125		
Mercury	50.4	ug/L		55.56	0.256	90	75-125		
Molybdenum	497	ug/L		555.6	ND	90	75-125		
Potassium	5.26	mg/L		5.556	0.280	90	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B439349-MS1)	**Sample: HG05251-01**			Prepared: 07/30/24 Analyzed: 08/02/24					
Selenium	512	ug/L		555.6	0.794	92	75-125		
Sodium	12.5	mg/L		5.556	7.98	82	75-125		
Thallium	492	ug/L		555.6	ND	89	75-125		
Matrix Spike Dup (B439349-MSD1)	**Sample: HG05251-01**			Prepared: 07/30/24 Analyzed: 08/02/24					
Antimony	474	ug/L		555.6	ND	85	75-125	2	20
Arsenic	519	ug/L		555.6	ND	93	75-125	4	20
Barium	574	ug/L		555.6	80.7	89	75-125	4	20
Beryllium	542	ug/L		555.6	ND	98	75-125	4	20
Boron	521	ug/L		555.6	26.8	89	75-125	1	20
Cadmium	513	ug/L		555.6	ND	92	75-125	4	20
Calcium	112	mg/L	Q4	5.556	118	NR	75-125	4	20
Chromium	511	ug/L		555.6	ND	92	75-125	4	20
Cobalt	503	ug/L		555.6	0.556	91	75-125	5	20
Lead	529	ug/L		555.6	1.42	95	75-125	4	20
Magnesium	54.4	mg/L	Q4	5.556	52.7	30	75-125	3	20
Mercury	52.5	ug/L		55.56	0.256	94	75-125	4	20
Molybdenum	518	ug/L		555.6	ND	93	75-125	4	20
Potassium	5.45	mg/L		5.556	0.280	93	75-125	4	20
Selenium	535	ug/L		555.6	0.794	96	75-125	4	20
Sodium	13.0	mg/L		5.556	7.98	90	75-125	4	20
Thallium	514	ug/L		555.6	ND	93	75-125	4	20
Batch B439360 - No Prep - SM 2540 C-2011									
Blank (B439360-BLK1)				Prepared: 07/30/24 Analyzed: 07/31/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439360-BS1)				Prepared: 07/30/24 Analyzed: 07/31/24					
Solids - total dissolved solids (TDS)	977	mg/L		1000		98	84.4-107		
Duplicate (B439360-DUP1)	**Sample: HG04890-11**			Prepared: 07/30/24 Analyzed: 07/31/24					
Solids - total dissolved solids (TDS)	3340	mg/L			3210			4	5
Batch B439416 - No Prep - SM 4500-F C-2011									
Calibration Blank (B439416-CCB1)				Prepared & Analyzed: 07/30/24					
Fluoride	0.100	mg/L							
Calibration Blank (B439416-CCB2)				Prepared & Analyzed: 07/30/24					
Fluoride	0.0280	mg/L							
Calibration Check (B439416-CCV1)				Prepared & Analyzed: 07/30/24					
Fluoride	0.711	mg/L		0.7000		102	90-110		
Calibration Check (B439416-CCV2)				Prepared & Analyzed: 07/30/24					
Fluoride	0.688	mg/L		0.7000		98	90-110		
Matrix Spike (B439416-MS5)	**Sample: HG04314-07**			Prepared & Analyzed: 07/30/24					
Fluoride	1.14	mg/L		1.000	0.126	101	80-120		
Matrix Spike (B439416-MS6)	**Sample: HG04591-04**			Prepared & Analyzed: 07/30/24					
Fluoride	1.20	mg/L		1.000	0.225	98	80-120		
Matrix Spike Dup (B439416-MSD5)	**Sample: HG04314-07**			Prepared & Analyzed: 07/30/24					
Fluoride	1.12	mg/L		1.000	0.126	100	80-120	2	20
Matrix Spike Dup (B439416-MSD6)	**Sample: HG04591-04**			Prepared & Analyzed: 07/30/24					
Fluoride	1.21	mg/L		1.000	0.225	98	80-120	0.6	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B439474 - SW 3015 - EPA 6010B									
Blank (B439474-BLK1)				Prepared: 07/31/24 Analyzed: 08/02/24					
Lithium	< 0.020	mg/L							
LCS (B439474-BS1)				Prepared: 07/31/24 Analyzed: 08/02/24					
Lithium	0.563	mg/L		0.5556		101	80-120		
Batch B439474 - SW 3015 - EPA 6020A									
Blank (B439474-BLK1)				Prepared: 07/31/24 Analyzed: 08/02/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B439474-BS1)				Prepared: 07/31/24 Analyzed: 08/02/24					
Antimony	524	ug/L		555.6		94	80-120		
Arsenic	550	ug/L		555.6		99	80-120		
Barium	540	ug/L		555.6		97	80-120		
Beryllium	568	ug/L		555.6		102	80-120		
Boron	544	ug/L		555.6		98	80-120		
Cadmium	544	ug/L		555.6		98	80-120		
Calcium	5.72	mg/L		5.556		103	80-120		
Chromium	547	ug/L		555.6		98	80-120		
Cobalt	551	ug/L		555.6		99	80-120		
Lead	567	ug/L		555.6		102	80-120		
Magnesium	6.03	mg/L		5.556		109	80-120		
Mercury	53.9	ug/L		55.56		97	80-120		
Molybdenum	542	ug/L		555.6		98	80-120		
Potassium	5.58	mg/L		5.556		100	80-120		
Selenium	570	ug/L		555.6		103	80-120		
Sodium	5.93	mg/L		5.556		107	80-120		
Thallium	550	ug/L		555.6		99	80-120		
Matrix Spike (B439474-MS1)	**Sample: HG05500-01**			Prepared: 07/31/24 Analyzed: 08/02/24					
Antimony	527	ug/L		555.6	ND	95	75-125		
Arsenic	564	ug/L		555.6	ND	101	75-125		
Barium	674	ug/L		555.6	148	95	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B439474-MS1)	**Sample: HG05500-01**			Prepared: 07/31/24 Analyzed: 08/02/24					
Beryllium	575	ug/L		555.6	ND	103	75-125		
Boron	572	ug/L		555.6	12.7	101	75-125		
Cadmium	552	ug/L		555.6	ND	99	75-125		
Calcium	142	mg/L	Q4	5.556	140	33	75-125		
Chromium	550	ug/L		555.6	ND	99	75-125		
Cobalt	544	ug/L		555.6	ND	98	75-125		
Lead	570	ug/L		555.6	ND	103	75-125		
Magnesium	71.4	mg/L		5.556	67.3	73	75-125		
Mercury	55.8	ug/L		55.56	0.611	99	75-125		
Molybdenum	559	ug/L		555.6	ND	101	75-125		
Potassium	5.97	mg/L		5.556	0.395	100	75-125		
Selenium	582	ug/L		555.6	ND	105	75-125		
Sodium	18.1	mg/L		5.556	12.7	98	75-125		
Thallium	553	ug/L		555.6	ND	100	75-125		
Matrix Spike Dup (B439474-MSD1)	**Sample: HG05500-01**			Prepared: 07/31/24 Analyzed: 08/02/24					
Antimony	512	ug/L		555.6	ND	92	75-125	3	20
Arsenic	550	ug/L		555.6	ND	99	75-125	2	20
Barium	658	ug/L		555.6	148	92	75-125	2	20
Beryllium	562	ug/L		555.6	ND	101	75-125	2	20
Boron	557	ug/L		555.6	12.7	98	75-125	3	20
Cadmium	538	ug/L		555.6	ND	97	75-125	3	20
Calcium	139	mg/L		5.556	140	NR	75-125	2	20
Chromium	535	ug/L		555.6	ND	96	75-125	3	20
Cobalt	527	ug/L		555.6	ND	95	75-125	3	20
Lead	548	ug/L		555.6	ND	99	75-125	4	20
Magnesium	70.5	mg/L		5.556	67.3	57	75-125	1	20
Mercury	54.1	ug/L		55.56	0.611	96	75-125	3	20
Molybdenum	544	ug/L		555.6	ND	98	75-125	3	20
Potassium	5.85	mg/L		5.556	0.395	98	75-125	2	20
Selenium	568	ug/L		555.6	ND	102	75-125	2	20
Sodium	17.9	mg/L		5.556	12.7	93	75-125	2	20
Thallium	535	ug/L		555.6	ND	96	75-125	3	20
Batch B439507 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439507-CCB1)				Prepared & Analyzed: 07/30/24					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B439507-CCV1)				Prepared & Analyzed: 07/30/24					
Chloride	5.06	mg/L		5.000		101	90-110		
Sulfate	4.92	mg/L		5.000		98	90-110		
Fluoride	5.19	mg/L		5.000		104	90-110		
Matrix Spike (B439507-MS1)	**Sample: HG04314-13**			Prepared & Analyzed: 07/30/24					
Chloride	6.1	mg/L		1.500	4.5	106	80-120		
Matrix Spike Dup (B439507-MSD1)	**Sample: HG04314-13**			Prepared & Analyzed: 07/30/24					
Chloride	6.1	mg/L		1.500	4.5	106	80-120	0.06	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B439591 - No Prep - SM 2540 C-2011									
Blank (B439591-BLK1)				Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439591-BS1)				Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	950	mg/L		1000		95	84.4-107		
Duplicate (B439591-DUP1)	**Sample: HG05251-01**			Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	470	mg/L			450			4	5
Duplicate (B439591-DUP2)	**Sample: HG05251-11**			Prepared: 08/01/24 Analyzed: 08/02/24					
Solids - total dissolved solids (TDS)	425	mg/L	M		350			19	5
Batch B439637 - No Prep - SM 4500-F C-2011									
Calibration Blank (B439637-CCB1)				Prepared & Analyzed: 08/01/24					
Fluoride	0.00900	mg/L							
Calibration Blank (B439637-CCB2)				Prepared & Analyzed: 08/01/24					
Fluoride	0.0240	mg/L							
Calibration Check (B439637-CCV1)				Prepared & Analyzed: 08/01/24					
Fluoride	0.694	mg/L		0.7000		99	90-110		
Calibration Check (B439637-CCV2)				Prepared & Analyzed: 08/01/24					
Fluoride	0.709	mg/L		0.7000		101	90-110		
Batch B439650 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439650-CCB1)				Prepared & Analyzed: 07/31/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B439650-CCV1)				Prepared & Analyzed: 07/31/24					
Chloride	5.03	mg/L		5.000		101	90-110		
Sulfate	4.87	mg/L		5.000		97	90-110		
Matrix Spike (B439650-MS1)	**Sample: HG04890-11**			Prepared & Analyzed: 07/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	35	NR	80-120		
Matrix Spike Dup (B439650-MSD1)	**Sample: HG04890-11**			Prepared & Analyzed: 07/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	35	NR	80-120	0	20
Batch B439736 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439736-CCB1)				Prepared & Analyzed: 08/01/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B439736-CCV1)				Prepared & Analyzed: 08/01/24					
Chloride	5.08	mg/L		5.000		102	90-110		
Sulfate	5.00	mg/L		5.000		100	90-110		
Batch B439866 - No Prep - SM 2540 C-2011									
Blank (B439866-BLK1)				Prepared: 08/05/24 Analyzed: 08/06/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B439866-BS1)				Prepared: 08/05/24 Analyzed: 08/06/24					
Solids - total dissolved solids (TDS)	1000	mg/L		1000		100	84.4-107		
Duplicate (B439866-DUP1)	**Sample: HG05500-01**			Prepared: 08/05/24 Analyzed: 08/06/24					
Solids - total dissolved solids (TDS)	660	mg/L			675			2	5

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B439866-DUP2)	**Sample: HG05500-11**			Prepared: 08/05/24 Analyzed: 08/06/24					
Solids - total dissolved solids (TDS)	535	mg/L			560			5	5
Batch B439870 - No Prep - SM 2320 B-2011									
Blank (B439870-BLK1)				Prepared & Analyzed: 08/01/24					
Alkalinity - carbonate as CaCO3	< 2.0	mg/L							
Alkalinity - bicarbonate as CaCO3	2.50	mg/L							
Duplicate (B439870-DUP1)	**Sample: HG04314-01**			Prepared & Analyzed: 08/01/24					
Alkalinity - bicarbonate as CaCO3	438	mg/L			425			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B439870-DUP2)	**Sample: HG04314-11**			Prepared & Analyzed: 08/01/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	400	mg/L			388			3	10
Batch B439872 - No Prep - SM 2320 B-2011									
Duplicate (B439872-DUP1)	**Sample: HG04591-01**			Prepared & Analyzed: 08/02/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	562	mg/L			550			2	10
Duplicate (B439872-DUP2)	**Sample: HG04591-11**			Prepared & Analyzed: 08/02/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	338	mg/L			325			4	10
Batch B439882 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439882-CCB1)				Prepared & Analyzed: 08/02/24					
Sulfate	0.00	mg/L							
Chloride	0.649	mg/L							
Calibration Check (B439882-CCV1)				Prepared & Analyzed: 08/02/24					
Chloride	5.04	mg/L		5.000		101	90-110		
Sulfate	5.13	mg/L		5.000		103	90-110		
Matrix Spike (B439882-MS1)	**Sample: HG05251-01**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	69.7	NR	80-120		
Matrix Spike (B439882-MS2)	**Sample: HG05251-11**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	60.4	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike Dup (B439882-MSD1)	**Sample: HG05251-01**			Prepared & Analyzed: 08/02/24					
Sulfate	1.00E9	mg/L	Q4	1.500	69.7	NR	80-120	0	20
Matrix Spike Dup (B439882-MSD2)	**Sample: HG05251-11**			Prepared & Analyzed: 08/02/24					
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	60.4	NR	80-120	0	20
Batch B439905 - No Prep - SM 4500-F C-2011									
Calibration Blank (B439905-CCB1)				Prepared & Analyzed: 08/05/24					
Fluoride	0.0140	mg/L							
Calibration Blank (B439905-CCB2)				Prepared & Analyzed: 08/05/24					
Fluoride	0.0290	mg/L							
Calibration Check (B439905-CCV1)				Prepared & Analyzed: 08/05/24					
Fluoride	0.699	mg/L		0.7000		100	90-110		
Calibration Check (B439905-CCV2)				Prepared & Analyzed: 08/05/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B439905-CCV2)				Prepared & Analyzed: 08/05/24					
Fluoride	0.693	mg/L		0.7000		99	90-110		
Batch B439990 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B439990-CCB1)				Prepared & Analyzed: 08/05/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B439990-CCV1)				Prepared & Analyzed: 08/05/24					
Chloride	5.22	mg/L		5.000		104	90-110		
Sulfate	5.16	mg/L		5.000		103	90-110		
Matrix Spike (B439990-MS1)	**Sample: HG05251-01**			Prepared & Analyzed: 08/05/24					
Chloride	1.0E9	mg/L	Q4	1.500	9.0	NR	80-120		
Matrix Spike (B439990-MS2)	**Sample: HG05500-01**			Prepared & Analyzed: 08/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	83.5	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	34	NR	80-120		
Matrix Spike (B439990-MS3)	**Sample: HG05500-11**			Prepared & Analyzed: 08/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	67.4	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120		
Matrix Spike Dup (B439990-MSD1)	**Sample: HG05251-01**			Prepared & Analyzed: 08/05/24					
Chloride	1.0E9	mg/L	Q4	1.500	9.0	NR	80-120	0	20
Matrix Spike Dup (B439990-MSD2)	**Sample: HG05500-01**			Prepared & Analyzed: 08/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	83.5	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	34	NR	80-120	0	20
Matrix Spike Dup (B439990-MSD3)	**Sample: HG05500-11**			Prepared & Analyzed: 08/05/24					
Sulfate	1.00E9	mg/L	Q4	1.500	67.4	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	16	NR	80-120	0	20
Batch B440131 - No Prep - SM 2320 B-2011									
Duplicate (B440131-DUP1)	**Sample: HG04890-01**			Prepared & Analyzed: 08/06/24					
Alkalinity - bicarbonate as CaCO3	312	mg/L			312			0	10
Duplicate (B440131-DUP2)	**Sample: HG04890-11**			Prepared & Analyzed: 08/06/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	550	mg/L			562			2	10
Batch B440143 - No Prep - SM 2320 B-2011									
Duplicate (B440143-DUP1)	**Sample: HG05251-11**			Prepared & Analyzed: 08/07/24					
Alkalinity - bicarbonate as CaCO3	350	mg/L			350			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B440172 - No Prep - SM 4500-F C-2011									
Calibration Blank (B440172-CCB1)				Prepared & Analyzed: 08/07/24					
Fluoride	0.00500	mg/L							
Calibration Check (B440172-CCV1)				Prepared & Analyzed: 08/07/24					
Fluoride	0.712	mg/L		0.7000		102	90-110		
Matrix Spike (B440172-MS4)	**Sample: HG05251-15**			Prepared & Analyzed: 08/07/24					
Fluoride	1.19	mg/L		1.000	0.197	99	80-120		
Matrix Spike Dup (B440172-MSD4)	**Sample: HG05251-15**			Prepared & Analyzed: 08/07/24					
Fluoride	1.20	mg/L		1.000	0.197	100	80-120	0.9	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B440596 - No Prep - SM 4500-F C-2011									
Calibration Blank (B440596-CCB1)				Prepared & Analyzed: 08/12/24					
Fluoride	0.00800	mg/L							
Calibration Check (B440596-CCV1)				Prepared & Analyzed: 08/12/24					
Fluoride	0.706	mg/L		0.7000		101	90-110		

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NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

Qualifiers

M	Analyte failed to meet the required acceptance criteria for duplicate analysis.
Q1	Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q2	Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q3	Matrix Spike/Matrix Spike Duplicate both failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q4	The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager

HG04314

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM24D			7/23/24	1137		5	✓		✓																		
2	OR11				1314		5	✓		✓																		
3	OR11 Dup				1314		5	✓		✓																		
4	OR20				1430		5	✓		✓																		
5	OM17D				1526		5	✓		✓																		
6	OM100D				1403		5	✓		✓																		
7	OM100S				1316		5	✓		✓																		
8	OM101D				1213		5	✓		✓																		
9	OM101S				1113		5	✓		✓																		
10	BA02				1428		4	✓		✓																		
11	BA01				1250		4	✓		✓																		
12	BA01 Dup				1250		4	✓		✓																		
13	G-60S				1539		4	✓		✓																		
14	G57S				1153		4	✓		✓																		
15	G58S				1251		3	✓		✓																		
16	G59S			↓	1412		3	✓		✓																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		7/23/24	1649							
					7/23/24	1619	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jason Dahl

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 7/23/24

HL-04591

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

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

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

ITEM #	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM6T	WT	G	7/24/24	1400		5	X		X																		
2	OR13D	WT	G	7/24/24	1134		5	X		X																		
3	OR13S	WT	G	7/24/24	1239		5	X		X																		
4	OR14D	WT	G	7/24/24	1513		5	X		X																		
5	OR04D	WT	G	7/24/24	1450		5	X		X																		
6	OM15D	WT	G	7/24/24	1050		5	X		X																		
7	OM22D	WT	G	7/24/24	1150		5	X		X																		
8	OM23D	WT	G	7/24/24	1243		5	X		X																		
9	OM25S	WT	G	7/24/24	1345		5	X		X																		
10	603L	WT	G	7/24/24	1021		1		X																			
11	604S	WT	G	7/24/24	1056		3	X		X																		
12	606S	WT	G	7/24/24	1200		3	X		X																		
13	612S	WT	G	7/24/24	1400		3	X		X																		
14	609S	WT	G	7/24/24	1530		3	X		X																		
15	BA04-3L	WT	G	7/24/24	1540		4	X		X																		
16	EB #1	WT	G	7/24/24	1545		5	X		X																		

Requested Analysis Filtered (Y/N)

Residual Chlorine (Y/N): 13 — Correction Factor (Deg C): 1 — Corrected Temp (Deg C): 4.1 — Observed Temp (Deg C): 4C — Delivery Method: FedEx UPS Walk-In USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		7/24/24	1647				
					7/24/24	1647	4.1 / ✓

FIP 7/24/24

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Kemberlon
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 07/24/24

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

Courier

HG04890 V3

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

Page: 1 of 10

REGULATORY AGENCY

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

Site Location STATE: IL

Section D Valid Matrix Codes

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA04	WT	G	7/25/24	15:55		4																							
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0	Andy Weteska	7/25/24	17:06		7/25/24	1706	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Andy Weteska
SIGNATURE of SAMPLER: Andy Weteska
DATE Signed (MM/DD/YY): 7/25/24

HG04890 V8

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 10

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

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

Site Location STATE: IL

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	P36L	WT	G	7/25/24	10:20		3																					
2	OM17	WT	G	7/25/24	10:50		5																					
3	OM12	WT	G	7/25/24	11:00		5																					
4	T46L	WT	G	7/25/24	11:16		3																					
5	OM12D	WT	G	7/25/24	12:00		5																					
6	T44L	WT	G	7/25/24	12:20		3																					
7	OM16	WT	G	7/25/24	12:35		4																					
8	OR19	WT	G	7/25/24	13:00		5																					
9	G70L	WT	G	7/25/24	13:40		3																					
10	OM21	WT	G	7/25/24	14:01		5																					
11	OM01	WT	G	7/25/24	14:40		5																					
12	OM01 Dup	WT	G	7/25/24	14:40		5																					
13	G71S	WT	G	7/25/24	14:45		3																					
14	BAD6	WT	G	7/25/24	11:00		4																					
15	BAD5	WT	G	7/25/24	12:30		4																					
16	BAD3	WT	G	7/25/24	14:29		4																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0	Andy Weteska	7/25/24	17:06		7/26/24	1706	3.1	Y	NI	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Andy Weteska
SIGNATURE of SAMPLER: Andy Weteska
DATE Signed (MM/DD/YY): 7/25/24

HG05251 VB

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
								Requested Analysis Filtered (Y/N)																							
1	GSOL	WT	G	7/29/24	1326		3	X		X																				
2	GSOS	WT	G	7/29/24	1450		4	X		X																				
3	GS3S	WT	G	7/29/24	1216		3	X		X																				
4	GS3L	WT	G	7/29/24	1113		3	X		X																				
5	BA02L	WT	G	7/29/24	1115		4	X		X																				
6	OR06A	WT	G	7/29/24	1215		5	X		X																				
7	OMOUS	WT	G	7/24/24	1351		5	X		X																				
8	OR02	WT	G	7/29/24	1452		5	X		X																				
9	GSIL	WT	G	7/29/24	1052		3	X		X																				
10	GSIL Dup	WT	G	7/29/24	1052		3	X		X																				
11	GSIS	WT	G	7/29/24	1053		4	X		X																				
12	GS2L	WT	G	7/29/24	1153		3	X		X																				
13	GS2S	WT	G	7/29/24	1240		3	X		X																				
14	GSHL	WT	G	7/29/24	1448		4	X		X																				
15	GSHS	WT	G	7/29/24	1412		3	X		X																				
16																														

Delivery Method: FedEx UPS Walk-in USPS Other

Observed Temp (Deg C) ~~Corrected Temp (Deg C)~~

IR Gun # ~~Correction Factor (Deg C)~~

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0		7/29/24	1613							
				VB	7/29/24	1613		Y	Y	Y

IR Gun # 13 Correction Factor (Deg C) +0.1

Observed Temp (Deg C) 3.2 Corrected Temp (Deg C) 3.3

Delivery Method: FedEx UPS Walk-in USPS Other

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Aaron Rumberger	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 07/29/24				

HG05500 13

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information: | Section B Required Project Information: | Section C Invoice Information: | Page: 1 of 10

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

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

ITEM #	Section D SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G55L	WT	G	7/30/24	1352		3	X		X																			
2	L103	WT	G	7/30/24	1236		3	X		X																			
3	P37L	WT	G	7/30/24	1217		3	X		X																			
4	P37L DUP	WT	G	7/30/24	1217		3	X		X																			
5	T45L	WT	G	7/30/24	1112		3	X		X																			
6	T43L	WT	G	7/30/24	1036		3	X		X																			
7	T43L DUP	WT	G	7/30/24	1036		3	X		X																			
8	OR03D				1004		5	X		X																			
9	OM26				1116		11	X	X	X																			
10	OM27				1210		11	X	X	X																			
11	OM28				1319		11	X	X	X																			
12	G56S				1111		3	X		X																			
13	G63L				1023		3	X		X																			
14	G63S				1002		3	X		X																			
15	G66L				1226		3	X		X																			
16	G66S				1248		3	X		X																			

IR Gun # 13 Correction Factor (Deg C) .1

Observed Temp (Deg C) 32 Corrected Temp (Deg C) 33

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		7/30/24	1554							
					7-30-24	1554	3.3			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James Dodd

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 7/30/24

courier

HG05500 VB

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

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

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G665 D4P			7/30/24	1248		3	X		X																				
2	G73L			1	1358		3	X		X																				
3	EB2				1415		11	X	X	X																				Filled after OM 28
4																														
5																														
6																														
7																														
8																														
9																														
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IR Gun # 13 Correction Factor (Deg C) 0.1

Observed Temp (Deg C) 3.2 Corrected Temp (Deg C) 3.3

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		7/30/24	1554				
					7/30/24	1554	3.3

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER: James David				
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 7/30/24	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Courier

HG05500 13

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G55L		WT	6	7/30/24	1352		3		X	X																			
2	L103		WT	6	7/30/24	1236		3		X	X																			
3	P37L		WT	6	7/30/24	1217		3		X	X																			
4	P37L DUP		WT	6	7/30/24	1217		3		X	X																			
5	T45L		WT	6	7/30/24	1112		3		X	X																			
6	T43L		WT	6	7/30/24	1036		3		X	X																			
7	T43L DUP		WT	6	7/30/24	1036		3		X	X																			
8	OR03D					1004		5		X	X																			
9	OM26					1116		11		X	X	X																		
10	OM27					1210		11		X	X	X																		
11	OM28					1319		11		X	X	X																		
12	G56S					1111		3		X		X																		
13	G63L					1023		3		X		X																		
14	G63S					1002		3		X		X																		
15	G66L					1226		3		X		X																		
16	G66S					1248		3		X		X																		

IR Gun # 13 Correction Factor (Deg C) .1

Observed Temp (Deg C) 3.2 Corrected Temp (Deg C) 3.3

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0	James David	7/30/24	1554				
				[signature]	7.30.24	1554	3.3

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): 7/30/24				

courier

HG05500 VB

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

ITEM #	Section D / Sample ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G665 Dup				7/30/24	1248		3	X		X																	
2	G73L				1	1358		3	X		X																	
3	EB2					1415		11	X	X	X																	Filled after OM 28
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

IR Gun # 13 Correction Factor (Deg C) 0.1

Observed Temp (Deg C) 3.2 Corrected Temp (Deg C) 3.3

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		7/30/24	1554				
					7.30.24	1554	3.3

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	James David			
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	7/30/24	

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

Cooler

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G54C	DC_G54!C	203	GMF	7/22/24	1347	36.24		JB
OM100S	DC_OM100#S	201-202	AP1/2	7/22/24	1132	11.88	TD = 28.03	JD
OM100D	DC_OM100&D	201-202	AP1/2	7/22/24	1130	11.71	TD = 56.31	JD
OM101S	DC_OM101#S	201-202	AP1/2	7/22/24	1534	15.42	TD = 19.97	JD
OM101D	DC_OM101&D	201-202	AP1/2	7/22/24	1536	17.00	TD = 36.33	JD
OM12D	DC_OM12&D	201-202	AP1/2	7/22/24	1234	16.20	TD - 54.83	APP
OM15D	DC_OM15&D	201-202	AP1/2	7/22/24	1009	24.54		JD
OM17D	DC_OM17&D	201-202	AP1/2	7/22/24	1058	14.73	TD=43.27	JD
OM26	DC_OM26	201-202	AP1/2	7/22/24	1408	30.15	TD=62.08	JD
OM27	DC_OM27	201-202	AP1/2	7/22/24	1401	32.34	TD=62.20	JD
OM28	DC_OM28	201-202	AP1/2	7/22/24	1356	46.97	TD=68.95	JD
XPW01	DC_XPW01	201-202	AP1/2	7/22/24	1632	6.98	Dry	APP
BA01C	DC-BA01!C	205	BAB	7/22/24	1200	12.74		APP
BA01L	DC-BA01!L	205	BAB	7/22/24	1159	12.71		APP
G02L	DC-G02!L	204	LF	07/22/24	1100	8.15	DTB - 1800	KMD
G02D	DC-G02&D	204	LF	07/22/24	1105	21.05	78.51 - DTB	KMD
G03L	DC-G03!L	204	LF	07/22/24	1001	60.42	26.43 - DTB	KMD
G03S	DC-G03#S	204	LF	07/22/24	1008	6.06	Pump -	KMD
G04L	DC-G04!L	204	LF	07/22/24	1117	14.70	17.04 - DTB	KMD
G04S	DC-G04#S	204	LF	07/22/24	1113	14.51	Pump -	KMD
G06L	DC-G06!L	204	LF	07/22/24	1533	19.70	23.46 - DTB	KMD
G06S	DC-G06#S	204	LF	07/22/24	1531	20.00	Pump	KMD
G07L	DC-G07!L	204	LF	07/22/24	1525	19.35	23.09 - DTB	KMD

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G08L	DC-G08!L	204	LF	07/22/24	1485	19.00	22.13-DTB	BMB
G09L	DC-G09!L	204	LF	07/22/24	1422	19.35	23.43-DTB	KMB
G09S	DC-G09#S	204	LF	07/22/24	1481	19.43	Pump	KMB
G12L	DC-G12!L	204	LF	07/22/24	1350	16.69	Pump	KMB
G12S	DC-G12#S	204	LF	07/22/24	1351	18.69	Pump	KMB
G14L	DC-G14!L	204	LF	07/22/24	1321	21.32	26.86-DTB	KMB
G15L	DC-G15!L	204	LF	07/22/24	1240	24.56	34.57-DTB	KMB
G15S	DC-G15#S	204	LF	07/22/24	1239	27.00	Pump	KMB
G16L	DC-G16!L	204	LF	07/22/24	1233	24.84	Pump	KMB
G50L	DC-G50!L	203	GMF	7/22/24	1333	11.56		JB
G51L	DC-G51!L	203	GMF	7/22/24	1049	12.22		JB
G52L	DC-G52!L	203	GMF	7/22/24	1019	24.34		JB
G52S	DC-G52#S	203	GMF	7/22/24	1027	29.64	Lock hard to open + close	JB
G53L	DC-G53!L	203	GMF	7/22/24	1107	10.96		JB
G53S	DC-G53#S	203	GMF	7/22/24	1111	12.84	Lock rusting	JB
G55L	DC-G55!L	203	GMF	7/22/24	1345	18.61		AW
G55S	DC-G55#S	203	GMF	7/22/24	1344	18.54		AW
G56L	DC-G56!L	203	GMF	7/22/24	1132	17.83		AW
G56S	DC-G56#S	203	GMF	7/22/24	1133	17.20		AW
G57L	DC-G57!L	203	GMF	7/22/24	1204	18.81		AW
G58L	DC-G58!L	203	GMF	07/22/24	1623	22.13	33.87-DTB	BMB
G58S	DC-G58#S	203	GMF	07/22/24	1622	22.07	Pump	BMB
G59L	DC-G59!L	203	GMF	~~7/22/24~~ 7/22/24	~~1021~~ 1626	19.19	Needed different key Right key almost broke 35.36-DTB	JB

JB 7/22

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G59S	DC-G59#S	203	GMF	7/22/24	1220	30.99		JB
G61S	DC-G61#S	203	GMF	7/22/24	1204	17.62		JB
G62L	DC-G62!L	203	GMF	7/22/24	1148	18.72		JB
G63L	DC-G63!L	203	GMF	7/22/24	1705	21.65		AP
G63S	DC-G63#S	203	GMF	7/22/24	1706	22.47		AM
G65L	DC-G65!L	203	GMF	7/22/24	12:47	16.46	Peristaltic	AW
G65S	DC-G65#S	203	GMF	7/22/24	10:58	16.76	Dedicated Bladder	AW
G66L	DC-G66!L	203	GMF	7/22/24	11:12	14.20	Peristaltic	AW
G66S	DC-G66#S	203	GMF	7/22/24	11:10	14.59	Dedicated Bladder	AW
G67L	DC-G67!L	203	GMF	7/22/24	11:23	11.71	Peristaltic	AW
G67S	DC-G67#S	203	GMF	7/22/24	11:22	12.67	Dedicated Bladder	AW
G68L	DC-G68!L	203	GMF	7/22/24	13:25	12.30	Portable Pump DTB: 17.10	AW
G68S	DC-G68#S	203	GMF	7/22/24	13:27	13.50	Dedicated Bladder	AW
G69L	DC-G69!L	203	GMF	7/22/24	13:08	12.16	Portable Pump DTB: 27.80	AW
G69S	DC-G69#S	203	GMF	7/22/24	13:11	15.93	Dedicated Bladder	AW
G70L	DC-G70!L	203	GMF	7/22/24	10:28	15.99	Dedicated Bladder	AW
G71L	DC-G71!L	203	GMF	7/22/24	10.33	22.72	Peristaltic	AW
G71S	DC-G71#S	203	GMF	07/22/24	15:57	23.55	Pump	KWC
G72L	DC-G72!L	203	GMF	7/22/24	10:43	21.92	Peristaltic	AW
G73L	DC-G73!L	203	GMF	07/22/24	1559	23.73	Pump	KWC
L103	DC-L103	204	LF	07/22/24	1304		ARTISAN	KWC
OM05S	DC-OM05#S	201-202	AP1/2	7/22/24	1331	20.64		AP
OM08	DC-OM08	201-202	AP1/2	7/22/24	1319	13.20	TD - 27.0	JD

BCa

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OM09	DC-OM09	201-202	AP1/2	7/22/24	1347	3.58	TD = 27.04	JD
OM10	DC-OM10	201-202	AP1/2	7/22/24	1108	9.23	TD=21.90	
OM15	DC-OM15	201-202	AP1/2	7/22/24	1012	20.94		JD
OM22S	DC-OM22#S	201-202	AP1/2	7/22/24	1302	17.07	TD=40.21	
OM23S	DC-OM23#S	201-202	AP1/2	7/22/24	1247	40.81	TD=46.15	
OM25D	DC-OM25&D	201-202	AP1/2	7/22/24	1233	57.73	TD: 77.48	
OR03S	DC-OR03#S	201-202	AP1/2	7/22/24	1444	45.22		APP
OR05D	DC-OR05&D	201-202	AP1/2	7/22/24	1328	21.32		APP
OR14S	DC-OR14#S	201-202	AP1/2	7/22/24	1356	6.58		APP
OR18	DC-OR18	201-202	AP1/2	7/22/24	1141	17.59	53.07 = TD	KWD
P01L	DC-P01!L	204	LF	07/22/24	1013	8.36	82.33 - DTB	KWD
P01S	DC-P01#S	204	LF	07/22/24	1020	8.27	29.66 - DTB	KWD
P01I	DC-P01$I	204	LF	07/22/24	1014	8.53	46.96 - DTB	KWD
P02S	DC-P02#S	204	LF	07/22/24	1057	13.84	91.86 - DTB	KWD
P04S	DC-P04#S	204	LF	07/22/24	1113	14.51	SAME AS GW45	KWD
P05L	DC-P05!L	204	LF	07/22/24	1124	3.04	14.92 - DTB	KWD
P05S	DC-P05#S	204	LF	07/22/24	1641	3.19	Pump	KWD
P05D	DC-P05&D	204	LF	07/22/24	1644	5.09	45.93 - DTB	KWD
P36L	DC-P36!L	204	LF	07/22/24	1512	9.60	Pump	KWD
P36S	DC-P36#S	204	LF	07/22/24	1513	9.26	31.44 - DTB	KWD
P36D	DC-P36&D	204	LF	07/22/24	1515	10.30	24.28 - DTB	KWD
P37L	DC-P37!L	204	LF	07/22/24	1401	12.36	Pump	KWD
P37D	DC-P37&D	204	LF	07/22/24	1403	14.19	43.19 - DTB	KWD

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P38L	DC-P38!L	204	LF	07/22/24	1313	14.72	DTB-19.72	KMD
P38S	DC-P38#S	204	LF	07/22/24	1316	14.08	DTB-22.32	KMD
P39L	DC-P39!L	204	LF	07/22/24	1207	4.72	DTB-15.08	KMD
P39S	DC-P39#S	204	LF	07/22/24	1202	4.85	DTB-26.28	KMD
P39D	DC-P39&D	204	LF	07/22/24	1204	12.34	DTB 43.57	KMD
P40L	DC-P40!L	204	LF	07/22/24	1553 ~~6.51~~	~~20.46~~ 6.51 KMD	DTB-20.46	KMD
P40S	DC-P40#S	204	LF	07/22/24	1557	5.72	DTB-35.33	KMD
P41L	DC-P41!L	204	LF	07/22/24	1639	5.51	DTB-12.14	KMD
P41S	DC-P41#S	204	LF	07/22/24	1638 ~~4.90~~	7.90 ~~34.4~~	DTB-31.48	KMD
P41D	DC-P41&D	204	LF	07/22/24	1637	34.20	69.02	KMD
P42L	DC-P42!L	204	LF	07/22/24	—	—	BROKEN	KMD
P42S	DC-P42#S	204	LF	07/22/24	1633	5.33	31.56-DTB	KMD
P42I1	DC-P42$I1	204	LF	07/22/24	1632	5.64	42.23 DTB	KMD
P42I2	DC-P42%I2	204	LF	07/22/24	1630	31.69	57.31	KMD
P42D	DC-P42&D	204	LF	07/22/24	1629	36.84	DTB-77.52	KMD
P52	DC-P52	203	GMF	07/22/24	1620	12.08	DTB-28.27	JD
P57L	DC-P57!L	203	GMF	07/22/24	1614	4.38	DTB-22.97	JD
P57S	DC-P57#S	203	GMF	07/22/24	1616	3.94	DTB-34.35	JD
P60	DC-P60	203	GMF	07/22/24	1211	18.46		JD
P61	DC-P61	203	GMF	07/22/24	1315	6.78		JD
P62	DC-P62	203	GMF	07/22/24	1250	8.71		JD
P63	DC-P63	203	GMF	07/22/24	1254	12.49		JD
P64	DC-P64	203	GMF	07/22/24	1303	13.32		JD

BG

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-24Q3 Rev 0

Well	Unique ID	Unit Numl	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
R10L	DC-R10!L	204	LF	07/22/24	1628	19.89		
R11L	DC-R11!L	204	LF	07/22/24	1354	10.53	DTB-26.42	KMD
R13L	DC-R13!L	204	LF	07/22/24	1345	1906	DTB-29.97	KMD
R61L	DC-R61!L	203	GMF	07/22/24	1202	17.48		
R72S	DC-R72#S	203	GMF	07/22/24	1040	21.91	PERISTALTIC	
T43L	DC-T43!L	204	LF	07/22/24	1428	5.65	PUMP	KMD
T44L	DC-T44!L	204	LF	07/22/24	1430	9.52	PUMP	KMD
T45L	DC-T45!L	204	LF	07/22/24	1455	7.40	PUMP	KMD
T46L	DC-T46!L	204	LF	07/22/24	1518	5.89	PUMP	KMD
X301	DC-X301-leachate	203	GMF	072224	1620	49.30		

U:6/19/23 GKJ

BG

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

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

Plant: DC
Event: DC-24Q3 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	7/22/24	1156	13.29	21615533	Yes	574.1342	Yes	H		APP
BA02	DC-BA02	205	BAB	7/22/24	1216	8.93	21615636	yes	571.2715	Yes	H		APP
BA02L	DC-BA02IL	205	BAB	7/22/24	1219	8.74	21615682	yes	571.3186	yes	H		APP
BA03	DC-BA03	205	BAB	7/22/24	1124	8.05	21615637	yes	570.478	yes	H		APP
BA03L	DC-BA03IL	205	BAB	7/22/24	1120	7.47	21615687	yes	568.6324	yes	H		APP
BA04	DC-BA04	205	BAB	7/22/24	1109	4.71	21615631	yes	573.6833	yes	H		APP
BA05	DC-BA05#	205	BAB	7/22/24	1143	17.97	21615540	yes	577.8838	yes	H		APP
BA06	DC-BA06	205	BAB	7/22/24	1135	20.15	21615525	yes	575.7928	yes	H		APP
G02S	DC-G02#S	204	LF	07/22/24	1100	7.86	21615554	Yes	614.01	Yes	H		KD
G50S	DC-G50#S	203	GMF	7/22/24	1328	12.54	21615535	Yes	611.28	Yes	High		JB
G51S	DC-G51#S	203	GMF	7/22/24	1044	11.42	21615691	Yes	606.80	Yes	High		JB
G54L	DC-G54IL	203	GMF	7/22/24	0958	20.93	21615690	Yes	607.96	Yes	High		JB
G54S	DC-G54#S	203	GMF	7/22/24	1005	22.29	21615684	Yes	607.08	Yes	High		JB
G57S	DC-G57#S	203	GMF	7/22/24	1201	18.46	21615683	yes	604.14	yes	H		AW
G60L	DC-G60IL	203	GMF	7/22/24	1040	9.89	21615678	Yes	606.01	Yes	High		JB
G60S	DC-G60#S	203	GMF	7/22/24	1238	21.21	21615677	Yes	593.75	Yes	High		JB
G64L	DC-G64IL	203	GMF	7/22/24	1130	20.81	21615688	Yes	601.60	Yes	High		JB
G64S	DC-G64#S	203	GMF	7/22/24	1127	22.21	21615632	Yes	600.96	Yes	High		JB

BG

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

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

Plant: DC
Event: DC-24Q3 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OM01	DC-OM01	201-202	AP1/2	7/22/24	1409	9.16	21615685	Yes	586.1435	Yes	H		JD
OM04S	DC-OM04#S	201-202	AP1/2	7/22/24	1426	19.64	21615542	Yes	587.5785	Yes	H		APP
OM07	DC-OM07	201-202	AP1/2	7/22/24	1300	11.34	21615541	NO	-	NO	-	NO Transducer	APP
OM12	DC-OM12	201-202	AP1/2	7/22/24	1239	15.17	21615527	NO	-	NO	-	NO Transducer	APP
OM16	DC-OM16	201-202	AP1/2	7/22/24	1047	26.46	21615539	Yes	582.6077	Yes	H		JD
OM17	DC-OM17	201-202	AP1/2	7/22/24	1055	11.20	21615693	Yes	560.6229	Yes	H		JD
OM21	DC-OM21	201-202	AP1/2	7/22/24	1416	9.47	21615593	Yes	596.9011	Yes	H		APP
OM22D	DC-OM22&D	201-202	AP1/2	7/22/24	1300	16.80	21615592	Yes	582.2973	Yes	H		JD
OM23D	DC-OM23&D	201-202	AP1/2	7/22/24	1244	37.64	21615591	Yes	575.6728	Yes	H		JD
OM24D	DC-OM24&D	201-202	AP1/2	7/22/24	1220	3.49	21615522	Yes	573.4683	Yes	H		JD
OM25S	DC-OM25#S	201-202	AP1/2	7/22/24	1229	57.97	21615681	Yes	571.2313	Yes	H		JD
OR02	DC-OR02	201-202	AP1/2	7/22/24	1453	4.91	21615679	Yes	596.3070	Yes	H		APP
OR03D	DC-OR03&D	201-202	AP1/2	7/22/24	1445	44.70	21615577	Yes	583.1636	Yes	H		APP
OR04D	DC-OR04&D	201-202	AP1/2	7/22/24	1428	21.09	21615570	Yes	586.5686	Yes	H		APP
OR06A	DC-OR06!A	201-202	AP1/2	7/22/24	1318	13.45	21615692	Yes	581.9741	Yes	H		APP
OR11	DC-OR11	201-202	AP1/2	7/22/24	1433	30.31	21615686	Yes	565.9183	Yes	H		JD
OR13S	DC-OR13#S	201-202	AP1/2	7/22/24	1341	12.41	21615676	Yes	590.1160	Yes	H		APP
OR13D	DC-OR13&D	201-202	AP1/2	7/22/24	1344	12.85	21564135	Yes	589.7038	Yes	H		APP

BG

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

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

Plant: DC
Event: DC-24Q3 Rev 1

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OR14D	DC-OR14&D	201-202	AP1/2	7/22/24	1359	9.57	21615611	yes	589.595	yes	H		APP
OR19	DC-OR19	201-202	AP1/2	7/22/24	1245	20.81	21615634	yes	576.954	yes	H		APP
OR20	DC-OR20	201-202	AP1/2	7/22/24	1429	20.85	21615610	yes	566.709	yes	H		APP
RG01	DC-RG01	?	?	7/22/24	1009	—	21628685	—	—	NO	~~R~~ APP 7/22/24	Record Serial No. unable to connect to laptop	APP

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

Duck Creek

WELL/SAMPLE POINT **BA06** Purge Method: BLADDER

Last Quarter: Bladder

Date: 07/25/24 Start Time: 0948 Finish/Sample Time: 1100

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

Depth to Water From MP: 20.35 ft Total Purge Volume: 1800 mL

Water Column Length: _____ ft

Well Water Volume: _____ L Total Drawdown: 4.15 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	1013	22.16	100	7.69	20006	16.13	-44	0	2604
2	1016	22.46	100	7.64	20002	16.05	-41	0	193
3	1019	22.71	100	7.65	20061	16.16	-48	0	91.80
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Check pH if reading is below 6.9 or above 7.7

Secondary pH Meter: OAKTON

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(4)

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

Final DTW: 24.50 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM01 **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 7/25/24 Start Time: 1244 Finish/Sample Time: 1440

Well Depth (Bottom) From MP: 27.62 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 9.31 ft Total Purge Volume: 1600 mL

Water Column Length: 18.31 ft

Well Water Volume: 11.09 L Total Drawdown: 11.63 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	1256	11.56	100	6.31	3310	21.70	46	1.20	381
2	1259	12.05	100	6.29	3250	21.75	38	1.12	343
3	1302	12.55	100	6.28	3210	21.81	37	1.03	305
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

10

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

Final DTW: 20.94 ft

Comments Field Dup

Sampler's Signature:

BCa

Duck Creek

WELL/SAMPLE POINT OR02 **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 7/29/30 Start Time: 1400 Finish/Sample Time: 1452

Well Depth (Bottom) From MP: 22.52 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 5.03 ft Total Purge Volume: 2000 mL

Water Column Length: 17.49 ft

Well Water Volume: 10.59 L Total Drawdown: 0.08 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	5.10	200	6.49	1930	18.94	-16	0.52	3.2
2	1416	5.10	200	6.49	1910	18.90	-17	0.45	1.2
3	1418	5.11	200	6.48	1910	18.85	-17	0.38	1.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 5.11 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR03D **Purge Method:** PORTABLE

Last Quarter: Portable

Date: 07/30/24 Start Time: 0915 Finish/Sample Time: 1004

Well Depth (Bottom) From MP: 77.75 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 44.60 ft Total Purge Volume: 2400 mL

Water Column Length: 33.15 ft

Well Water Volume: 20.07 L Total Drawdown: 0.30 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	0931	44.75	200	6.32	4840	18.23	-16	0.71	65.4
2	0933	44.75	200	6.29	5130	17.82	-19	0.71	72.7
3	0935	44.75	200	6.36	5330	17.47	-22	0.69	85.5
4	0937	44.75	200	6.30	5360	17.45	-24	0.62	87.7
5	0939	44.75	200	6.30	5430	17.41	-26	0.61	89.1
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 44.96 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR04D **Purge Method:** Portable pump

Last Quarter: Portable

Date: 7/24/24 Start Time: 1400 Finish/Sample Time: 1450

Well Depth (Bottom) From MP: 68.07 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 21.15 ft Total Purge Volume: 2500 mL

Water Column Length: 46.92 ft

Well Water Volume: 28.41 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	1416	21.15	200	6.33	6280	17.26	-23	0.44	>1000
2	1418	21.15	200	6.31	6260	17.25	-23	0.41	>1000
3	1420	21.15	200	6.29	6250	17.28	-24	0.39	982
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 21.15 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM04S **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 7/29/24 Start Time: 1228 Finish/Sample Time: 1351

Well Depth (Bottom) From MP: 35.85 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 19.47 ft Total Purge Volume: 1600 mL

Water Column Length: 16.38 ft

Well Water Volume: 9.92 L Total Drawdown: 7.80 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	1239	21.11	100	6.54	1180	23.85	1	0.80	47.4
2	1242	21.45	100	6.52	1176	23.75	1	0.68	53.0
3	1245	21.78	100	6.51	1170	23.69	3	0.64	48.7
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-50XD

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 27.27 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR06A **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 7/29/24 Start Time: 1124 Finish/Sample Time: 1215

Well Depth (Bottom) From MP: **26.05** ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 13.30 ft Total Purge Volume: 2000 mL

Water Column Length: 12.75 ft

Well Water Volume: 7.72 L Total Drawdown: 0.03 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	1135	13.33	200	6.51	4010	20.29	-38	2.80	912
2	1137	13.33	200	6.50	4160	20.25	-38	2.71	977
3	1139	13.33	200	6.49	4180	20.23	-38	2.61	964
4	1141	13.33	200	6.49	4190	20.21	-38	2.51	919
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 13.33 ft

Comments

Sampler's Signature:

BG

WELL/SAMPLE POINT OM07 **Purge Method:** Peristaltic w/dedicated tubing
Last Quarter: Peristaltic

Date: 7/24/2024 Start Time: 1313 Finish/Sample Time: 1400

Well Depth (Bottom) From MP: 29.97 ft
Depth to Water From MP: 11.41 ft
Water Column Length: 18.56 ft
Well Water Volume: 11.23 L
Min. Purge Volume: 1000 mL
Total Purge Volume: 1600 mL
Total Drawdown: 0.14 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	1327	11.55	200	7.09	1520	16.74	-50	1.06	0.0
2	1329	11.55	200	7.05	1530	16.64	-49	0.98	0.0
3	1331	11.55	200	7.02	1530	16.60	-49	0.93	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:
Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong
Color ☒ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P. 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(5)

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

Final DTW: 11.55 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR11 **Purge Method:** Peristaltic w/ dedicated tubing

Last Quarter: Peristaltic

Date: 7/23/2024 Start Time: 1202 Finish/Sample Time: 1314

Well Depth (Bottom) From MP: 40.57 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 30.35 ft Total Purge Volume: 1600 mL

Water Column Length: 10.22 ft

Well Water Volume: 6.18 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	1218	30.40	200	6.85	1410	17.25	25	1.57	0.0
2	1220	30.40	200	6.87	1410	17.27	19	1.55	0.0
3	1222	30.40	200	6.81	1410	17.10	14	1.43	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

5+5

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

Final DTW: 30.35 ft

Comments Field Dup Billed here

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM12 **Purge Method:** Peristaltic w/ dedicated tubing
Last Quarter: Peristaltic

Date: 7/25/2024 Start Time: 0956 Finish/Sample Time: 1100

Well Depth (Bottom) From MP:	43.01 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	15.35 ft	Total Purge Volume:	1600 mL
Water Column Length:	27.66 ft		
Well Water Volume:	16.73 L	Total Drawdown:	0.22 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1030	15.51	200	7.27	2260	18.17	204	0.94	0.0
2	1032	15.51	200	7.25	2270	18.09	200	0.92	0.0
3	1034	15.57	200	7.20	2270	18.03	196	0.89	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 15.57 ft

Comments

Sampler's Signature:

BCM

Duck Creek

WELL/SAMPLE POINT OR13D **Purge Method:** peristaltic w/ dedicated tubing
Last Quarter: Peristaltic

Date: 7/24/2024 Start Time: 1030 Finish/Sample Time: 1134

Well Depth (Bottom) From MP:	50.17 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	12.93 ft	Total Purge Volume:	1600 mL
Water Column Length:	37.24 ft		
Well Water Volume:	22.52 L	Total Drawdown:	0.05 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	1106	12.98	200	6.71	2210	16.34	-47	0.34	0.0
2	1108	12.98	200	6.71	2200	16.31	-47	0.33	0.0
3	1110	12.98	200	6.70	2210	16.31	-47	0.32	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor:	☒ None	☐ Slight	☐ Mod.	☐ Strong
Color	☒ None	☐ Slight	☐ Mod.	☐ Strong
Turb:	☒ None	☐ Slight	☐ Mod	☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 12.98 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR13S **Purge Method:** Peristaltic w/ dedicated tubing

Last Quarter: Peristaltic

Date: 7/24/2024 Start Time: 1154 Finish/Sample Time: 1239

Well Depth (Bottom) From MP: 29.53 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 12.55 ft Total Purge Volume: 1600 mL

Water Column Length: 16.98 ft

Well Water Volume: 10.27 L Total Drawdown: 0.05 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	1205	12.60	200	7.01	1860	19.67	-53	1.12	0.0
2	1207	12.60	200	7.00	1870	19.60	-54	1.05	0.0
3	1209	12.60	200	6.97	1870	19.54	-54	1.01	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

5

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

Final DTW: 12.60 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR14D **Purge Method:** Peristaltic Pump w/dedicated tubing

Last Quarter: Peristaltic

Date: 7/24/2024 Start Time: 1425 Finish/Sample Time: 1513

Well Depth (Bottom) From MP: 48.73 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 9.70 ft Total Purge Volume: 1600 mL

Water Column Length: 39.03 ft

Well Water Volume: 23.61 L Total Drawdown: 0.10 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	1445	9.80	200	7.06	2580	18.28	-97	1.32	0.0
2	1447	9.80	200	7.04	2590	18.19	-97	1.27	0.0
3	1449	9.80	200	7.03	2590	18.12	-97	1.24	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 9.80 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM16 **Purge Method:** Peristaltic

Last Qaurter: Peristaltic

Date: 7/25/24 Start Time: 1121 Finish/Sample Time: 1235

Well Depth (Bottom) From MP: 43.67 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 26.43 ft Total Purge Volume: 1600 mL

Water Column Length: 17.24 ft

Well Water Volume: 10.44 L Total Drawdown: 1.41 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	1139	27.35	100	6.27	4150	17.17	100	0.64	19.8
2	1142	27.40	100	6.27	4200	17.15	98	0.65	12.4
3	1145	27.41	100	6.25	4200	17.18	96	0.64	15.2
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

4

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

Final DTW: 27.84 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM17 **Purge Method:** Peristaltic

Last Quarter: Peristaltic

Date: 7/25/24 Start Time: 0945 Finish/Sample Time: 1050

Well Depth (Bottom) From MP: 17.25 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 11.74 ft Total Purge Volume: 1800 mL

Water Column Length: 5.51 ft

Well Water Volume: 3.34 L Total Drawdown: 3.99 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	0959	12.70	100	6.43	430	18.71	-21	1.50	355
2	1002	13.00	100	6.39	420	18.70	-21	1.44	349
3	1005	13.25	100	6.35	415	18.74	-18	1.35	362
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

4

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

Final DTW: 15.73 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OR19 **Purge Method:** Peristaltic W/ Teflon tubing
Last Quarter: Peristaltic

Date: 7/25/2024 Start Time: 1213 Finish/Sample Time: 1300

Well Depth (Bottom) From MP: 54.92 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 20.77 ft Total Purge Volume: 1600 mL

Water Column Length: 34.15 ft

Well Water Volume: 20.65 L Total Drawdown: 0.03 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	1224	20.80	200	7.24	2650	21.31	-44	1.46	0.0
2	1226	20.80	200	7.20	2670	21.03	-46	1.36	0.0
3	1228	20.80	200	7.12	2680	21.00	-46	1.30	0.0
4	1230	20.80	200	7.07	2690	20.93	-46	1.22	0.0
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

5

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

Final DTW: 20.80 ft

Comments

Sampler's Signature:

BG1

Duck Creek

WELL/SAMPLE POINT OR20 **Purge Method:** Peristaltic w/ Lo Flow Cartridge for Grundfos

Last Quarter: Peristaltic

Date: 7/23/2024 Start Time: 1339 Finish/Sample Time: 1430

Well Depth (Bottom) From MP: 57.34 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 20.85 ft Total Purge Volume: 1600 mL

Water Column Length: 36.49 ft

Well Water Volume: 2207 L Total Drawdown: 0.00 ft

7/23/24

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1358	20.90	200	7.05	2690	21.64	81	3.32	0.0
2	~~1359~~ 1400	20.90	200	7.05	2700	21.56	81	3.28	0.0
3	1402	20.90	200	7.05	2700	21.53	80	3.24	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

5

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

Final DTW: 20.85 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM21 **Purge Method:** Peristaltic w/ dedicated tubing
Last Quarter: Peristaltic

Date: 7/25/2024 Start Time: 1317 Finish/Sample Time: 1401

Well Depth (Bottom) From MP:	60.49 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	9.63 ft	Total Purge Volume:	1600 mL
Water Column Length:	50.86 ft		
Well Water Volume:	30.76 L	Total Drawdown:	0.09 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1328	9.72	200	7.26	3940	18.28	119	1.32	0.0
2	1330	9.72	200	7.21	3960	18.23	120	1.25	0.0
3	1332	9.72	200	7.20	3960	18.18	120	1.21	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

Final DTW: 9.72 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM22D **Purge Method:** Portable pump

Last Quarter: Portable

Date: 7/24/24 Start Time: 1101 Finish/Sample Time: 1150

Well Depth (Bottom) From MP: 65.17 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 16.95 ft Total Purge Volume: 1800 mL

Water Column Length: 48.22 ft

Well Water Volume: 29.20 L Total Drawdown: 0.03 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	1122	16.98	200	6.37	4430	24.46	-32	1.03	114
2	1124	16.98	200	6.35	4490	24.50	-32	1.00	118
3	1126	16.98	200	6.34	4530	24.54	-32	0.98	120
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 16.98 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM23D **Purge Method:** Portable pump

Last Quarter: Portable

Date: 7/24/24 Start Time: 1201 Finish/Sample Time: 1243

Well Depth (Bottom) From MP: 82.95 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 37.61 ft Total Purge Volume: 1800 mL

Water Column Length: 45.34 ft

Well Water Volume: 27.46 L Total Drawdown: 0.39 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	1213	38.02	200	6.52	1400	27.54	-63	0.49	400
2	1215	38.02	200	6.51	1400	27.51	-60	0.41	425
3	1217	38.02	200	6.50	1410	27.45	-57	0.37	438
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 38.00 ft

Comments

Sampler's Signature:

BCa

Duck Creek

WELL/SAMPLE POINT OM24D **Purge Method:** Peristaltic w/ dedicated tubing

Last Quarter: Peristaltic

Date: 7/23/2024 Start Time: 1048 Finish/Sample Time: 1137

Well Depth (Bottom) From MP: 20.14 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 3.54 ft Total Purge Volume: 1600 mL

Water Column Length: 16.60 ft

Well Water Volume: 10.04 L Total Drawdown: 0.06 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	1104	3.58	200	6.49	3610	18.20	189	1.59	0.0
2	1106	3.58	200	6.50	3600	18.18	182	1.55	0.0
3	1108	3.58	200	6.51	3610	18.14	175	1.52	2.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

(5)

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

Final DTW: 3.60 ft

Comments

Sampler's Signature:

BG

Duck Creek

WELL/SAMPLE POINT OM25S **Purge Method:** Portable pump

Last Quarter: Portable

Date: 7/24/24 Start Time: 1255 Finish/Sample Time: 1345

Well Depth (Bottom) From MP: 64.03 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 58.02 ft Total Purge Volume: 2400 mL

Water Column Length: 6.01 ft

Well Water Volume: 3.64 L Total Drawdown: 1.00 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	1315	58.95	200	6.23	3710	17.50	-11	0.59	306
2	1317	58.95	200	6.22	3710	17.52	-9	0.52	276
3	1319	58.96	200	6.24	3730	17.54	-8	0.44	255
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba U-5000

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

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

Final DTW: 59.02 ft

Comments

Sampler's Signature:

8a

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	77-86°F passing wind W 7-10mph	Environment:	woods

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP-30	Serial Number:	30015	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	6.72	s.u.	±0.1 s.u.	F	Y	7.01	MSI	023334-01	12/7/2025
pH 10.00a	9.68	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%	P	N	NA	Proactive	3GJ1438	Oct-24
ORP	95	mV	±15 mV	F	Y	226	Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	97.89	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.9	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 1003

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	7.10	s.u.	±0.15 s.u.	P		Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	975	µS/cm	±5%	P		Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.06	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.8	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/23/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	86-63 sunny wind 1 mph	Environment:	landfill, forest, Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTICTXG	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19FE220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.85	s.u.	±0.1 s.u.	F		4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	N	—	MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	N	—	MSI	024037-01	2/21/2026
SC Zero (DI)	75	µS/cm	0<25 µS/cm	F	Y	25	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2840	µS/cm	±5%	P	N	—	Proactive	3GJ1438	Oct-24
ORP	202	mV	±15 mV	F	Y	223	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.9	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0921

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?		Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	N		Proactive	3GE1074	May-25
pH 7.00b	7.14	s.u.	±0.15 s.u.	P	N		Proactive	3GE1252	May-25
pH 10.00b	10.39	s.u.	±0.15 s.u.	F	Y	9.99	Geotech	3GA1134	Jan-25
SC 1000	300	µS/cm	±5%	F	Y	1010	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore — Date: 7-23-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	81°-86°F sunny WNW 5-10 mph	Environment:	woods, grass

Multiparameter Water Meter	Make: Horiba	Model: U50000	Serial Number:	YL9K5QHA	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	—	MSI	023219-02	8/9/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	No	—	MSI	024037-01	2/21/2026
SC Zero (DI)	3~~4~~13	µS/cm	0<25 µS/cm	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	No	—	Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV	P	No	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%	P	No	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

AM 7/23/24

Approx. every 8 hrs, unless only one well

2x3 @ 2602

ICV (Initial Calibration Verification) Time: 1025

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.10	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	987	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1532

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	—	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	No	—	MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%	P	No	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	No	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/23/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCKY CREEK
Weather:	75° SUNNY 4 MPH SW	Environment:	GRASSY

Multiparameter Water Meter	Make:	HORIBA	Model:	U-5000	Serial Number:	V7320PKK	
Water Level Meter	Make:	HERON	Model:	WT	Serial Number:	AFF2111192 HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.36	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2016	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV				Reagents	8H0644	Apr-25
DO (Zero pt)	0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

BG 8/2/24

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0948

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1531

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1003	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 07/23/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Amberson	Location:	Duck creek
Weather:	70°-85°F Sunny Wind NW Smpl	Environment:	Grass Woods

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	YL9KJ9HA	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-7	

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	–	MSI	023219-02	8/9/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	NO	–	MSI	024037-01	2/21/2026
SC Zero (DI)	14	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	–	Proactive	3GJ1438	Oct-24
ORP	221	mV	±15 mV	P	NO	–	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	Nd	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1011

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	–	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	–	Proactive	3GE1252	May-25
pH 10.00b	10.11	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	988	µS/cm	±5%	P	–	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	NO	–	MSI	024037-01	2/21/2026
SC 1000	985	µS/cm	±5%	P	NO	–	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	Nd	✓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	75-83° F partly cloudy, wind WNW 7mph	Environment:	woods, weeds
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
Water Level Meter	Make: QED	Model: MP-30	Serial Number: 80065

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.66	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.85	s.u.	±0.1 s.u.	F	Y	7.01	MSI	023334-01	12/7/2025
pH 10.00a	10.24	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	P	N	NA	Proactive	3GJ1438	Oct-24
ORP	348	mV	±15 mV	F	Y	228	Reagents	8406644	Apr-25
DO (Zero pt)	0.07	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.19	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 1000

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.92	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	986	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1545

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	995	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.5	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JB, AW	Location:	Duck Creek
Weather:	76°-83° Sunny 3mph Wind NE	Environment:	
Multiparameter Water Meter	Make: Horiba	Model: Aqua-T U-5000	Serial Number: V7320PKR
Water Level Meter	Make: Heron	Model:	Serial Number: 19FF2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.87	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	47	µS/cm	0<25 µS/cm	F	Yes	05	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	N/A	Proactive	3GJ1438	Oct-24
ORP	220	mV	±15 mV	P	No	N/A	Reagents InSitu	8406644 ~~3GJ2017~~	Apr-25 ~~Jun-24~~
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:15

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	None	Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 15:40

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	NO		MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO		MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	P	NO		Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Emily Weinstein Date: 7/24/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Noble	Location:	Clinton landfill + Duck creek
Weather:	85°-65° cloudy wind from NW	Environment:	landfill grassy
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTK4XG
Water Level Meter	Make: WT	Model: Heron	Serial Number: 19FF220213ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	22	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2610	µS/cm	±5%	F	Y	2000	Proactive	3GJ1438	Oct-24
ORP	224	mV	±15 mV	P	N	NA	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0952

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.65	s.u.	±0.15 s.u.	F	Y 3.99	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	N	Proactive	3GE1252	May-25
pH 10.00b	10.36	s.u.	±0.15 s.u.	F	Y 10.00	Geotech	3GA1134	Jan-25
SC 1000	1070	µS/cm	±5%	P	N	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1542

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1030	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7-24-24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	72° CLOUDY 7 MPH E	Environment:	GRASSY

Multiparameter Water Meter	Make: HACH	Model: HQ5000	Serial Number:	AGJTK 4XG	
Water Level Meter	Make: HERON	Model: WT	Serial Number:	19FF220213IMC	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1093	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	224	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0925			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.06	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	6.98	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1014	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1558				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1013	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:		Date:	07/25/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	73°-83°F Cloudy Wind 5-7mph	Environment:	Grass, woods

Multiparameter Water Meter	Make: Horiba	Model: U50CD	Serial Number:	YL9K59HA	
Water Level Meter	Make: Heron	Model: Dipper	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC Zero (DI)	16	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1970	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV	P	NO	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.2	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

230 @ 24°C

ICV (Initial Calibration Verification) Time: 0934

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.09	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	977	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1420

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC 1000	994	µS/cm	±5%	P	NO	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/25/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW, JB	Location:	Duck Creek
Weather:	72°-83° Cloudy 7mph Winds	Environment:	Grassy, Overgrown
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKK
Water Level Meter	Make: Heron	Model: DipperT	Serial Number: 19FF2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.19	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.89	s.u.	±0.1 s.u.	F	yes	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.	P	NO	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	N/A	Proactive	3GJ1438	Oct-24
ORP	220	mV	±15 mV	P	NO	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.3	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:04

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.95	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	6.87	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 14:58

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.12	s.u.	±0.1 s.u.	F	Yes	4.01	MSI	023219-02	8/9/2025
pH 7.00a	6.91	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO		MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	P	NO		Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P	NO		Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Andy Whitman Date: 7/25/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	77 - 83°F p. sunny wind E 7-13 mph	Environment:	woods, grass
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUC83C85
Water Level Meter	Make: QED	Model: MP-30	Serial Number: 30065

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	234	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.70	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.3	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0926

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	992	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1448

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N.	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/25/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	76°- 89°F sunny wind SW 11mph	Environment:	grass

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	AGS TKH x 6	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.94	s.u.	±0.1 s.u.	P	NC	—	MSI	023219-02	8/9/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	NC	—	MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1940	µS/cm	±5%	P	NC	—	Proactive	3GJ1438	Oct-24
ORP	233	mV	±15 mV	P	NC	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NC	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

232 @ 23°C

ICV (Initial Calibration Verification)					Time: 1006			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.12	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	956	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1501			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NC	—	MSI	023219-02	8/9/2025
pH 7.00a	7.09	s.u.	±0.1 s.u.	P	NC	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%	P	NC	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NC	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NC	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/29/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jordan Bohannan		Location:	Duck Creek	
Weather:	75°F, Cloudy, 10 mph wind		Environment:	Grassy, Muddy	
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	V7320 PIKK	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF 21119213	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.17	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.	P	No	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0009	µS/cm	0<25 µS/cm	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	No	N/A	Proactive	3GJ1438	Oct-24
ORP	218	mV	±15 mV	P	No	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.8	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.07	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0919

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	None	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1458

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1003	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: JBohannan — Date: 7/29/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	73-88°F p. sunny wind SSW 10-18 mph	Environment:	grass

Multiparameter Water Meter	Make: Hach	Model: U-5000	Serial Number:	WUG-83C85	
Water Level Meter	Make: QED	Model: MP-30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.70	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.80	s.u.	±0.1 s.u.	F	Y	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.22	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	15	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	N	NA	Proactive	3GJ1438	Oct-24
ORP	251	mV	±15 mV	F	Y	229	Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1	P	N	NA	Macron	#000228049	8/26/2025
DO (Saturated)	98.11	%	97-100%	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0947			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	7.12	s.u.	±0.15 s.u.	P	"	Proactive	3GE1252	May-25
pH 10.00b	10.02	s.u.	±0.15 s.u.	P	"	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	"	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1307				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N.	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	"	"	"	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	"	"	"	MSI	024037-01	2/21/2026
SC 1000	1020	µS/cm	±5%	"	"	"	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	"	"	"	Macron	#000228049	8/26/2025
Turbidity (DI)	0.5	NTU	<2 NTU	"	"	"	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	7/29/24 (30 7/29)

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JB, AW	Location:	Duck Creek
Weather:	77°F, light rain, 5mph wind	Environment:	Grass, Mud

Multiparameter Water Meter	Make: Horiba	Model: U-5006	Serial Number:	V7320P1413	
Water Level Meter	Make: Heron	Model: DipperT	Serial Number:	19FF2111192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.40	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0002	µS/cm	0<25 µS/cm	P	N/A	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1870	µS/cm	±5%	F	Yes	2000	Proactive	3GJ1438	Oct-24
ORP	218	mV	±15 mV	P	No	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1	P	No	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.4	NTU	<2 NTU	P	No	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0844

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.74	s.u.	±0.15 s.u.	F	Calibrated: 4.00	Proactive	3GE1074	May-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	None	Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	None	Geotech	3GA1134	Jan-25
SC 1000	999	µS/cm	±5%	P	None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1407

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1007	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: JBohannan — Date: 7/30/2024

BGA

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	81° 91° C Sunny Wind S 6mph	Environment:	grass mud

Multiparameter Water Meter	Make: Horiba	Model: U50	Serial Number:	AGJTM HX6	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	—	MSI	023219-02	8/9/2025
pH 7.00a	6.91	s.u.	±0.1 s.u.	P	No	—	MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC Zero (DI)	13	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	224	mV	±15 mV	P	NO	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.01	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

230 @ 24 °C

ICV (Initial Calibration Verification) Time: 0942

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.93	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.14	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	984	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1416

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2026
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC 1000	955	µS/cm	±5%	P	NO	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/30/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD, KD	Location:	Duck Creek
Weather:	77-92°F cloudy wind 5 7-10mph	Environment:	grass
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
Water Level Meter	Make: QED	Model: MP-30	Serial Number: 30065

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N,	NA	MSI	023219-02	8/9/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.96	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	228	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.32	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0905

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.93	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1430

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N,	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	7/30/24	Date:	

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	84°, 91% cloudy, wind SW 5mph	Environment:	grassy

Multiparameter Water Meter	Make: Horiba	Model: U52 00	Serial Number:	3T85NNNF	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	No	–	MSI	024037-01	2/21/2026
SC Zero (DI)	13	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	No	–	Proactive	3GJ1438	Oct-24
ORP	188	mV	±15 mV	C	yes	235	Reagents	8406644	Apr-25
DO (Zero pt)	0.04	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.6	%	97-100%	P	No	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

233 @ 27°C

ICV (Initial Calibration Verification) Time: 1035

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	–	Proactive	3GE1074	May-25
pH 7.00b	6.92	s.u.	±0.15 s.u.	P	–	Proactive	3GE1252	May-25
pH 10.00b	9.87	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	–	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1532

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	9.94	s.u.	±0.1 s.u.	P	No	–	MSI	024037-01	2/21/2026
SC 1000	985	µS/cm	±5%	P	No	–	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	1.3	NTU	<2 NTU	P	No	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/31/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JB AW	Location:	Duck Creek
Weather:	80°F, Cloudy,	Environment:	Grassy, Mud
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF 2111192HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.88	s.u.	±0.1 s.u.	F	Yes	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0003	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2012	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1019

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.90	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.95	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	998	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1535

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1011	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 7/31/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	81-92°F cloudy wind SW 7-9mph	Environment:	grass

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.66	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	N	NA	MSI	023334-01	12/7/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	244	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.52	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1058

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.92	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	961	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N.	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.07	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	7/31/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Auron Pemberton	Location:	Duck Creek
Weather:	77°-87°F cloudy wind SW 5mph	Environment:	grass mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: 3T85NNNF
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	–	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P	NO	–	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	NO	–	MSI	024037-01	2/21/2026
SC Zero (DI)	14	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO	–	Proactive	3GJ1438	Oct-24
ORP	279	mV	±15 mV	P	yes	229	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.5	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

229@25°C

ICV (Initial Calibration Verification) Time: 0900

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	s.u.	±0.15 s.u.	P	–	Proactive	3GE1074	May-25
pH 7.00b	6.89	s.u.	±0.15 s.u.	P	–	Proactive	3GE1252	May-25
pH 10.00b	9.94	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	✓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1412

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	✓	MSI	023219-02	8/9/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	✓	MSI	023334-01	12/7/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.	P	NO	✓	MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%	P	NO	–	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	✓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 8/1/2024

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD. KO	Location:	Duck Creek
Weather:	76-86° F cloudy wind WSW 2-3mph	Environment:	9855

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	WUG83C85	
Water Level Meter	Make: QED	Model: MP30	Serial Number:	30065	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.31	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.	P	N	NA	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	↓	↓	↓	Proactive	3GJ1438	Oct-24
ORP	227	mV	±15 mV	↓	↓	↓	Reagents	8406644	Apr-25
DO (Zero pt)	0.9	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	98.88	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0850

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	↓	↓	Proactive	3GE1252	May-25
pH 10.00b	10.02	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	960	µS/cm	±5%	↓	↓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1410

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023334-01	12/7/2025
pH 10.00a	10.04	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC 1000	990	µS/cm	±5%	↓	↓	↓	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 8/1/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW, JB	Location:	Duck Creek
Weather:	77°F, Cloudy, 6mph wind	Environment:	Grass, Mud
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: V7320PKK
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF221111 92HB

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.14	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.89	s.u.	±0.1 s.u.	I	I	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	No	N/A	MSI	024037-01	2/21/2026
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P			Proactive	3GJ1438	Oct-24
ORP	219	mV	±15 mV	P			Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0842

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	None	Proactive	3GE1074	May-25
pH 7.00b	6.92	s.u.	±0.15 s.u.		None	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.		None	Geotech	3GA1134	Jan-25
SC 1000	978	µS/cm	±5%		None	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1340

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.89	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	967	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.00	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: JBdunnam — Date: 8/1/24

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	93°-72° sunny wind 6mph WSW	Environment:	Grassy
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: 3T85NNNF
Water Level Meter	Make: IWT	Model: Heron	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.94	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.97	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	178	µS/cm	0<25 µS/cm	F	Y	25	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	3750	µS/cm	±5%	F	Y	2000	Proactive	3GJ1438	Oct-24
ORP	278	mV	±15 mV	P	N	N/A	Reagents	8406644	Apr-25
DO (Zero pt)	0.55	mg/L	±0.1	F	Y	0.0	Macron	#000228049	8/26/2025
DO (Saturated)	104.8	%	97-100%	F	Y	98.9	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.4	NTU	<2 NTU	P	N	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0927

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	P		Proactive	3GE1252	May-25
pH 10.00b	9.91	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	216	µS/cm	±5%	F	Y 1000	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1501

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1030	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore Date: 8/5/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK / INDIAN
Weather:	70°C CLOUDY 4MPH W	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA CARTON	Model: U-52	Serial Number:	Y5X21HRP	
Water Level Meter	Make: HERON	Model: WT	Serial Number:	19FF220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.29	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	PASS	NA	N/A	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.01	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1998	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	231	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1006			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	999	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1020				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1012	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 08/13/24

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

August 24, 2024

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

Dear Daryl Johnson:

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

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

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

Sincerely,

Diane Billings
Project Manager

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

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HG04338

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

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

Work Order HG04594

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

Pace Analytical Services, LLC
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Peoria, IL 61615
(800)752-6651

Work Order HG04893

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

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

Work Order HG05252

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

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Work Order HG05510

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

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Work Order HG05745

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

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Work Order HH00175

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

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ANALYTICAL RESULTS

Sample: HG04338-01 **Sampled:** 07/23/24 11:37
Name: OM24D **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.04	pCi/L			1	0.688	08/06/24 16:29	PACE	904.0 903.0

Sample: HG04338-02 **Sampled:** 07/23/24 13:14
Name: OR11 **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.137U	pCi/L			1	0.767	08/06/24 16:29	PACE	904.0 903.0

Sample: HG04338-03 **Sampled:** 07/23/24 13:14
Name: OR11 Dup **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.506J	pCi/L			1	0.823	08/06/24 16:29	PACE	904.0 903.0

Sample: HG04338-04 **Sampled:** 07/23/24 14:30
Name: OR20 **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.994	pCi/L			1	0.858	08/06/24 16:29	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04338-05 **Sampled:** 07/23/24 15:26
Name: OM17D **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.93	pCi/L			1	0.787	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-06 **Sampled:** 07/23/24 14:03
Name: OM100D **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.53	pCi/L			1	0.874	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-07 **Sampled:** 07/23/24 13:16
Name: OM100S **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.16	pCi/L			1	0.724	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-08 **Sampled:** 07/23/24 12:13
Name: OM101D **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.659	pCi/L			1	0.648	08/06/24 20:46	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04338-09 **Sampled:** 07/23/24 11:13
Name: OM101S **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.69	pCi/L			1	0.784	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-10 **Sampled:** 07/23/24 14:28
Name: BA02 **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.22	pCi/L			1	0.683	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-11 **Sampled:** 07/23/24 12:50
Name: BA01 **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.789	pCi/L			1	0.566	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-12 **Sampled:** 07/23/24 12:50
Name: BA01 Dup **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.485J	pCi/L			1	0.635	08/06/24 20:46	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04338-13 **Sampled:** 07/23/24 15:39
Name: G60S **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.48	pCi/L			1	0.625	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04338-14 **Sampled:** 07/23/24 11:53
Name: G57S **Received:** 07/23/24 16:49
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.156U	pCi/L			1	1.5	08/06/24 20:46	PACE	904.0 903.0

Sample: HG04594-01 **Sampled:** 07/24/24 14:00
Name: OM07 **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.41	pCi/L			1	0.628	08/07/24 15:49	PACE	904.0 903.0

Sample: HG04594-02 **Sampled:** 07/24/24 11:34
Name: OR13D **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.03	pCi/L			1	0.681	08/07/24 20:21	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04594-03 **Sampled:** 07/24/24 12:39
Name: OR13S **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.38	pCi/L			1	0.729	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04594-04 **Sampled:** 07/24/24 15:13
Name: OR14D **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.62	pCi/L			1	0.807	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04594-05 **Sampled:** 07/24/24 14:50
Name: OR04D **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.18	pCi/L			1	1.09	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04594-06 **Sampled:** 07/24/24 10:50
Name: OM15D **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.93	pCi/L			1	1.29	08/07/24 20:21	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04594-07 **Sampled:** 07/24/24 11:50
Name: OM22D **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.745J	pCi/L			1	1.16	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04594-08 **Sampled:** 07/24/24 12:43
Name: OM23D **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.06	pCi/L			1	0.709	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04594-09 **Sampled:** 07/24/24 13:45
Name: OM25S **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.858	pCi/L			1	0.798	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04594-10 **Sampled:** 07/24/24 15:40
Name: BA03L **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.876	pCi/L			1	0.538	08/07/24 20:21	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04594-11 **Sampled:** 07/24/24 15:45
Name: EB #1 **Received:** 07/24/24 16:47
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.09	pCi/L			1	0.667	08/07/24 20:21	PACE	904.0 903.0

Sample: HG04893-01 **Sampled:** 07/25/24 10:50
Name: OM17 **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.20J	pCi/L			1	1.78	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-02 **Sampled:** 07/25/24 11:00
Name: OM12 **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.15	pCi/L			1	0.68	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-03 **Sampled:** 07/25/24 12:00
Name: OM12D **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.19	pCi/L			1	0.399	08/12/24 22:42	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04893-04 **Sampled:** 07/25/24 12:35
Name: OM16 **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.706	pCi/L			1	0.49	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-05 **Sampled:** 07/25/24 13:00
Name: OR19 **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.66	pCi/L			1	0.527	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-06 **Sampled:** 07/25/24 14:01
Name: OM21 **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.377U	pCi/L			1	1.21	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-07 **Sampled:** 07/25/24 14:40
Name: OM01 **Received:** 07/25/24 17:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.16	pCi/L			1	0.783	08/12/24 22:42	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04893-08
Name: OM01 Dup
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:40
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.556J	pCi/L			1	0.805	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-09
Name: BA06
Matrix: Ground Water - Grab

Sampled: 07/25/24 11:00
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.653	pCi/L			1	0.489	08/12/24 22:42	PACE	904.0 903.0

Sample: HG04893-11
Name: BA05
Matrix: Ground Water - Grab

Sampled: 07/25/24 12:30
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.608	pCi/L			1	0.52	08/14/24 19:49	PACE	904.0 903.0

Sample: HG04893-12
Name: BA03
Matrix: Ground Water - Grab

Sampled: 07/25/24 14:29
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.883	pCi/L			1	0.491	08/14/24 19:49	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG04893-13
Name: BA04
Matrix: Ground Water - Grab

Sampled: 07/25/24 15:55
Received: 07/25/24 17:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.379J	pCi/L			1	0.629	08/14/24 19:49	PACE	904.0 903.0

Sample: HG05252-01
Name: G50S
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:50
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.388J	pCi/L			1	0.78	08/14/24 19:49	PACE	904.0 903.0

Sample: HG05252-02
Name: BA02L
Matrix: Ground Water - Grab

Sampled: 07/29/24 11:15
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.621J	pCi/L			1	0.651	08/14/24 19:49	PACE	904.0 903.0

Sample: HG05252-03
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 07/29/24 12:15
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.366J	pCi/L			1	0.509	08/14/24 19:49	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG05252-04
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 07/29/24 13:51
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.292J	pCi/L			1	0.407	08/14/24 19:49	PACE	904.0 903.0

Sample: HG05252-05
Name: OR02
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:52
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.261J	pCi/L			1	0.514	08/14/24 20:39	PACE	904.0 903.0

Sample: HG05252-06
Name: G51S
Matrix: Ground Water - Grab

Sampled: 07/29/24 10:53
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.350J	pCi/L			1	0.447	08/14/24 20:39	PACE	904.0 903.0

Sample: HG05252-07
Name: G54L
Matrix: Ground Water - Grab

Sampled: 07/29/24 14:48
Received: 07/29/24 16:13
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.386J	pCi/L			1	0.444	08/14/24 20:39	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG05252-08 **Sampled:** 07/29/24 14:12
Name: G54S **Received:** 07/29/24 16:13
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.49	pCi/L			1	0.695	08/14/24 20:39	PACE	904.0 903.0

Sample: HG05510-01 **Sampled:** 07/30/24 10:04
Name: OR03D **Received:** 07/30/24 15:54
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.19	pCi/L			1	1.06	08/18/24 15:09	PACE	904.0 903.0

Sample: HG05510-02 **Sampled:** 07/30/24 11:16
Name: OM26 **Received:** 07/30/24 15:54
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	7.34	pCi/L			1	3.24	08/18/24 15:09	PACE	904.0 903.0

Sample: HG05510-03 **Sampled:** 07/30/24 12:10
Name: OM27 **Received:** 07/30/24 15:54
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.57	pCi/L			1	1.05	08/18/24 15:09	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG05510-04 **Sampled:** 07/30/24 13:19
Name: OM28 **Received:** 07/30/24 15:54
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.75	pCi/L			1	0.787	08/18/24 15:09	PACE	904.0 903.0

Sample: HG05510-05 **Sampled:** 07/30/24 14:15
Name: EB #2 **Received:** 07/30/24 15:54
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0673U	pCi/L			1	0.538	08/18/24 15:09	PACE	904.0 903.0

Sample: HG05745-01 **Sampled:** 07/31/24 14:05
Name: G60L **Received:** 07/31/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.43	pCi/L			1	0.471	08/18/24 15:09	PACE	904.0 903.0

Sample: HG05745-02 **Sampled:** 07/31/24 12:58
Name: R61L **Received:** 07/31/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.119U	pCi/L			1	0.8	08/18/24 15:09	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HG05745-03 **Sampled:** 07/31/24 12:47
Name: G61S **Received:** 07/31/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.545	pCi/L			1	0.535	08/18/24 15:09	PACE	904.0 903.0

Sample: HG05745-04 **Sampled:** 07/31/24 11:43
Name: G64L **Received:** 07/31/24 16:35
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0928U	pCi/L			1	0.627	08/18/24 15:09	PACE	904.0 903.0

Sample: HH00175-01 **Sampled:** 08/01/24 13:40
Name: Field Blank **Received:** 08/01/24 15:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.112U	pCi/L			1	1.08	08/18/24 15:09	PACE	904.0 903.0

Sample: HH00175-02 **Sampled:** 08/01/24 13:12
Name: G64S **Received:** 08/01/24 15:06
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.470J	pCi/L			1	0.657	08/18/24 15:09	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HH00175-03
Name: G02S
Matrix: Ground Water - Grab

Sampled: 08/01/24 10:30
Received: 08/01/24 15:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.410J	pCi/L			1	0.543	08/18/24 15:09	PACE	904.0 903.0

Sample: HH00175-04
Name: P60
Matrix: Ground Water - Grab

Sampled: 08/01/24 12:19
Received: 08/01/24 15:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0680U	pCi/L			1	0.72	08/18/24 15:09	PACE	904.0 903.0

Sample: HH00175-05
Name: G62L
Matrix: Ground Water - Grab

Sampled: 08/01/24 13:29
Received: 08/01/24 15:06
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.403J	pCi/L			1	0.583	08/18/24 15:09	PACE	904.0 903.0

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NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

Certified by: Diane Billings, Project Manager

ANALYTICAL REPORT

August 09, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1760352
Samples Received:	07/25/2024
Project Number:	HG04338
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HG04338-01 L1760352-01 Non-Potable Water

Collected by | Collected date/time 07/23/24 11:37 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-02 L1760352-02 Non-Potable Water

Collected by | Collected date/time 07/23/24 13:14 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-03 L1760352-03 Non-Potable Water

Collected by | Collected date/time 07/23/24 13:14 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-04 L1760352-04 Non-Potable Water

Collected by | Collected date/time 07/23/24 14:30 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 16:29	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-05 L1760352-05 Non-Potable Water

Collected by | Collected date/time 07/23/24 15:26 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-06 L1760352-06 Non-Potable Water

Collected by | Collected date/time 07/23/24 14:03 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HG04338-07 L1760352-07 Non-Potable Water

Collected by | Collected date/time 07/23/24 13:16 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-08 L1760352-08 Non-Potable Water

Collected by | Collected date/time 07/23/24 12:13 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-09 L1760352-09 Non-Potable Water

Collected by | Collected date/time 07/23/24 11:13 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-10 L1760352-10 Non-Potable Water

Collected by | Collected date/time 07/23/24 14:28 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-11 L1760352-11 Non-Potable Water

Collected by | Collected date/time 07/23/24 12:50 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

HG04338-12 L1760352-12 Non-Potable Water

Collected by | Collected date/time 07/23/24 12:50 | Received date/time 07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HG04338-13 L1760352-13 Non-Potable Water		07/23/24 15:39	07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HG04338-14 L1760352-14 Non-Potable Water		07/23/24 11:53	07/25/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332190	1	07/31/24 18:09	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2330445	1	07/26/24 10:00	08/06/24 20:46	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2330445	1	07/26/24 10:00	08/01/24 10:34	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HG04338-01 SAMPLE RESULTS - 01

Collected date/time: 07/23/24 11:37 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.157	U	0.290	0.517	0.557	0.291	08/06/2024 16:29	WG2332190
(T) Barium	*95.1*					*30.0-143*	*08/06/2024 16:29*	WG2332190
(T) Yttrium	*81.1*					*30.0-136*	*08/06/2024 16:29*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.04		0.552	0.688	08/06/2024 16:29	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.04		0.470	0.604	0.404	0.269	08/01/2024 10:34	WG2330445
(T) Barium-133	*85.1*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-02 SAMPLE RESULTS - 02

Collected date/time: 07/23/24 13:14 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.619	U	0.261	0.492	0.521	0.274	08/06/2024 16:29	WG2332190
(T) Barium	*82.7*					*30.0-143*	*08/06/2024 16:29*	WG2332190
(T) Yttrium	*89.1*					*30.0-136*	*08/06/2024 16:29*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.137	U	0.430	0.767	08/06/2024 16:29	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.137	U	0.342	0.513	0.563	0.376	08/01/2024 10:34	WG2330445
(T) Barium-133	*62.5*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-05 SAMPLE RESULTS - 03

Collected date/time: 07/23/24 13:14 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.000	U	0.328	0.551	0.618	0.321	08/06/2024 16:29	WG2332190
(T) Barium	*112*					*30.0-143*	*08/06/2024 16:29*	WG2332190
(T) Yttrium	*80.9*					*30.0-136*	*08/06/2024 16:29*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.506	J	0.548	0.823	08/06/2024 16:29	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.506	J	0.439	0.599	0.543	0.358	08/01/2024 10:34	WG2330445
(T) Barium-133	*66.6*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-04 SAMPLE RESULTS - 04

Collected date/time: 07/23/24 14:30 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.469	J	0.329	0.585	0.612	0.322	08/06/2024 16:29	WG2332190
(T) Barium	*90.2*					*30.0-143*	*08/06/2024 16:29*	WG2332190
(T) Yttrium	*68.9*					*30.0-136*	*08/06/2024 16:29*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.994		0.575	0.858	08/06/2024 16:29	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.525	J	0.472	0.623	0.601	0.382	08/01/2024 10:34	WG2330445
(T) Barium-133	*72.8*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-05 SAMPLE RESULTS - 05

Collected date/time: 07/23/24 15:26 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.57		0.385	0.699	0.684	0.359	08/06/2024 20:46	WG2332190
(T) Barium	*105*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*80.2*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.93		0.496	0.787	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.353	J	0.313	0.452	0.389	0.259	08/01/2024 10:34	WG2330445
(T) Barium-133	*90.6*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-06 SAMPLE RESULTS - 06

Collected date/time: 07/23/24 14:03 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.745	J	0.442	0.758	0.819	0.428	08/06/2024 20:46	WG2332190
(T) Barium	*92.8*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*83.3*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.53		0.584	0.874	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.782		0.381	0.504	0.305	0.216	08/01/2024 10:34	WG2330445
(T) Barium-133	*91.0*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-07 SAMPLE RESULTS - 07

Collected date/time: 07/23/24 13:16 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.568	J	0.354	0.596	0.657	0.343	08/06/2024 20:46	WG2332190
(T) Barium	*76.3*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*88.7*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.16		0.501	0.724	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.594		0.354	0.494	0.303	0.225	08/01/2024 10:34	WG2330445
(T) Barium-133	*79.6*					*30.0-143*	*08/01/2024 10:34*	WG2330445

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.336	J	0.270	0.483	0.504	0.263	08/06/2024 20:46	WG2332190
(T) Barium	*99.1*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*88.3*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.659		0.419	0.648	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.323	J	0.320	0.463	0.408	0.283	08/01/2024 10:34	WG2330445
(T) Barium-133	*75.6*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-09 SAMPLE RESULTS - 09

Collected date/time: 07/23/24 11:13 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.18		0.317	0.545	0.569	0.297	08/06/2024 20:46	WG2332190
(T) Barium	*90.5*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*84.0*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.69		0.545	0.784	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.505	J	0.443	0.622	0.540	0.367	08/01/2024 10:34	WG2330445
(T) Barium-133	*60.4*					*30.0-143*	*08/01/2024 10:34*	WG2330445

HG04338-10 SAMPLE RESULTS - 10

Collected date/time: 07/23/24 14:28 L1760352

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.548		0.279	0.494	0.514	0.269	08/06/2024 20:46	WG2332190
(T) Barium	*118*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*85.7*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.22		0.518	0.683	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.667		0.436	0.592	0.450	0.309	08/01/2024 10:34	WG2330445
(T) Barium-133	*68.4*					*30.0-143*	*08/01/2024 10:34*	WG2330445

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.211	U	0.276	0.488	0.519	0.271	08/06/2024 20:46	WG2332190
(T) Barium	*109*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*88.3*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.789		0.434	0.566	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.578		0.335	0.483	0.226	0.186	08/01/2024 10:34	WG2330445
(T) Barium-133	*79.4*					*30.0-143*	*08/01/2024 10:34*	WG2330445

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.161	U	0.322	0.535	0.605	0.314	08/06/2024 20:46	WG2332190
(T) Barium	*98.0*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*88.2*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.485	J	0.397	0.635	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.324		0.233	0.359	0.192	0.158	08/01/2024 10:34	WG2330445
(T) Barium-133	*90.3*					*30.0-143*	*08/01/2024 10:34*	WG2330445

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.795		0.311	0.526	0.567	0.296	08/06/2024 20:46	WG2332190
(T) Barium	*119*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*85.9*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.48		0.469	0.625	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.688		0.351	0.479	0.264	0.196	08/01/2024 10:34	WG2330445
(T) Barium-133	*90.8*					*30.0-143*	*08/01/2024 10:34*	WG2330445

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.934	U	0.763	1.30	1.48	0.770	08/06/2024 20:46	WG2332190
(T) Barium	*117*					*30.0-143*	*08/06/2024 20:46*	WG2332190
(T) Yttrium	*75.7*					*30.0-136*	*08/06/2024 20:46*	WG2332190

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.156	U	0.783	1.50	08/06/2024 20:46	WG2330445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.156	J	0.178	0.300	0.228	0.179	08/01/2024 10:34	WG2330445
(T) Barium-133	*90.5*					*30.0-143*	*08/01/2024 10:34*	WG2330445

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

WG2332190 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1760352-01,02,03,04,05,06,07,08,09,10,11,12,13,14

Method Blank (MB)

(MB) R4104043-1 08/06/24 16:29

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.244	J	0.245	0.458	0.241
(T) Barium	*88.1*		*88.1*		
(T) Yttrium	*67.3*		*67.3*		

L1755618-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1755618-05 08/06/24 16:29 • (DUP) R4104043-5 08/06/24 16:29

Analyte	Original Result Bq/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0101	0.0181	0.0339	0.0177	1.13	0.469	0.854	0.446	196	2.38		20	3
(T) Barium	*121*				*94.8*	*94.8*							
(T) Yttrium	*81.0*				*81.7*	*81.7*							

Laboratory Control Sample (LCS)

(LCS) R4104043-2 08/06/24 16:29

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.70	114	80.0-120	
(T) Barium			*100*		
(T) Yttrium			*73.4*		

L1760352-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1760352-14 08/06/24 20:46 • (MS) R4104043-3 08/06/24 16:29 • (MSD) R4104043-4 08/06/24 16:29

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.934	19.2	19.8	115	119	1	70.0-130			3.49		20
(T) Barium		*117*			*95.0*	*96.0*							
(T) Yttrium		*75.7*			*73.8*	*75.6*							

WG2330445 QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1760352-01,02,03,04,05,06,07,08,09,10,11,12,13,14

Method Blank (MB)

(MB) R4102664-1 08/01/24 10:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0417	U	0.0885	0.141	0.0928
(T) Barium-133	*58.3*		*58.3*		

L1760352-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1760352-14 08/01/24 10:34 • (DUP) R4102664-5 08/01/24 10:34

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.156	0.178	0.228	0.179	0.298	0.282	0.352	0.246	62.7	0.426	J	20	3
(T) Barium-133	*90.5*				*82.0*	*82.0*							

Laboratory Control Sample (LCS)

(LCS) R4102664-2 08/01/24 10:34

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.89	97.8	75.0-125	
(T) Barium-133			*77.2*		

L1760352-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1760352-01 08/01/24 10:34 • (MS) R4102664-3 08/01/24 10:34 • (MSD) R4102664-4 08/01/24 10:34

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	1.04	20.4	23.5	97.0	112	1	75.0-125			13.9		20
(T) Barium-133		*85.1*			*65.7*	*62.1*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

F193

Pace Analytical Services, LLC

HG04338

SENDING LABORATORY	RECEIVING LABORATORY
PDC Laboratories, Inc. 2231 W Altorfer Dr Peoria, IL 61615 (800) 752-6651	Pace Analytical - Mt Juliet, Tn 12065 Lebanon Rd Mt Juliet, TN 37122 (615) 758-5858

L1761352

Sample: HG04338-01
Name: OM24D
Sampled: 07/23/24 11:37
Matrix: Ground Water
Preservative: HNO3, pH <2
-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 11:37	

Sample: HG04338-02
Name: OR11
Sampled: 07/23/24 13:14
Matrix: Ground Water
Preservative: HNO3, pH <2
-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 13:14	

Sample: HG04338-03
Name: OR11 Dup
Sampled: 07/23/24 13:14
Matrix: Ground Water
Preservative: HNO3, pH <2
-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 13 14	

Sample: HG04338-04
Name: OR20
Sampled: 07/23/24 14:30
Matrix: Ground Water
Preservative: HNO3, pH <2
-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 14:30	

Sample: HG04338-05
Name: OM17D
Sampled: 07/23/24 15:26
Matrix: Ground Water
Preservative: HNO3, pH <2
-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 15:26	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG04338

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1716052

Sample: HG04338-06
Name: OM100D
Sampled: 07/23/24 14:03
Matrix: Ground Water
Preservative: HNO3, pH <2
-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 14:03	

Sample: HG04338-07
Name: OM100S
Sampled: 07/23/24 13:16
Matrix: Ground Water
Preservative: HNO3, pH <2
-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 13:16	

Sample: HG04338-08
Name: OM101D
Sampled: 07/23/24 12:13
Matrix: Ground Water
Preservative: HNO3, pH <2
-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 12:13	

Sample: HG04338-09
Name: OM101S
Sampled: 07/23/24 11 13
Matrix: Ground Water
Preservative: HNO3, pH <2
-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 11:13	

Sample: HG04338-10
Name: BA02
Sampled: 07/23/24 14:28
Matrix: Ground Water
Preservative: HNO3, pH <2
-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 14:28	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG04338

L1760352

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HG04338-11
Name: BA01

Sampled: 07/23/24 12:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-11

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 12:50	

Sample: HG04338-12
Name: BA01 Dup

Sampled: 07/23/24 12:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-12

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 12:50	

Sample: HG04338-13
Name: G60S

Sampled: 07/23/24 15:39
Matrix: Ground Water
Preservative: HNO3, pH <2

-13

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 15:39	

Sample: HG04338-14
Name: G57S

Sampled: 07/23/24 11:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-14

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/05/24 16:00	01/19/25 11:53	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG04338

L1760352

19.2+3=19.5

7775810023590

Sample Receipt Checklist

If Applicable

14 TOTAL

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

Date Shipped: 7/24/24 Total # of Containers: 14 Sample Origin (State): IL PO #: _____

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

Relinquished By	Date/Time	Received By	Date/Time
[signature]	7/24/24 0805		
		Christopher M. Bellina	7/25/24 0900

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

L17600352

Tracking Numbers		Temperature
		19.7+.3=20.0
777581023590		19.2+.3=19.5

Name

Date

ANALYTICAL REPORT

August 09, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1760782
Samples Received:	07/26/2024
Project Number:	HG04594
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HG04594-01 L1760782-01 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/24/24 14:00	07/26/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 15:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 15:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-02 L1760782-02 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/24/24 11:34	07/26/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-03 L1760782-03 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/24/24 12:39	07/26/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-04 L1760782-04 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/24/24 15:13	07/26/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-05 L1760782-05 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/24/24 14:50	07/26/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-06 L1760782-06 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/24/24 10:50	07/26/24 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HG04594-07 L1760782-07 Non-Potable Water

Collected by | Collected date/time 07/24/24 11:50 | Received date/time 07/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-08 L1760782-08 Non-Potable Water

Collected by | Collected date/time 07/24/24 12:43 | Received date/time 07/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-09 L1760782-09 Non-Potable Water

Collected by | Collected date/time 07/24/24 13:45 | Received date/time 07/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-10 L1760782-10 Non-Potable Water

Collected by | Collected date/time 07/24/24 15:40 | Received date/time 07/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

HG04594-11 L1760782-11 Non-Potable Water

Collected by | Collected date/time 07/24/24 15:45 | Received date/time 07/26/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2332193	1	08/04/24 12:29	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2332445	1	07/30/24 12:52	08/07/24 20:21	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2332445	1	07/30/24 12:52	08/01/24 10:58	ZRG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HG04594-01 SAMPLE RESULTS - 01

Collected date/time: 07/24/24 14:00 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.885	U	0.301	0.578	0.605	0.317	08/07/2024 15:49	WG2332193
(T) Barium	*128*					*30.0-143*	*08/07/2024 15:49*	WG2332193
(T) Yttrium	*103*					*30.0-136*	*08/07/2024 15:49*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.41		0.658	0.628	08/07/2024 15:49	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	2.41		0.585	0.712	0.169	0.140	08/01/2024 10:58	WG2332445
(T) Barium-133	*93.2*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-02 SAMPLE RESULTS - 02

Collected date/time: 07/24/24 11:34 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.766		0.344	0.647	0.649	0.341	08/07/2024 20:21	WG2332193
(T) Barium	*119*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*84.9*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.03		0.403	0.681	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.259		0.209	0.342	0.207	0.163	08/01/2024 10:58	WG2332445
(T) Barium-133	*84.5*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-05 SAMPLE RESULTS - 03

Collected date/time: 07/24/24 12:39 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.496	J	0.360	0.646	0.689	0.359	08/07/2024 20:21	WG2332193
(T) Barium	*111*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*94.4*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.38		0.645	0.729	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.88		0.535	0.665	0.238	0.177	08/01/2024 10:58	WG2332445
(T) Barium-133	*87.1*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-04 SAMPLE RESULTS - 04

Collected date/time: 07/24/24 15:13 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.24		0.421	0.752	0.785	0.412	08/07/2024 20:21	WG2332193
(T) Barium	*73.7*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*108*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.62		0.482	0.807	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.377		0.235	0.362	0.188	0.147	08/01/2024 10:58	WG2332445
(T) Barium-133	*94.2*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-05 SAMPLE RESULTS - 05

Collected date/time: 07/24/24 14:50 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.50		0.576	1.05	1.08	0.564	08/07/2024 20:21	WG2332193
(T) Barium	*117*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*95.3*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.18		0.647	1.09	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.680		0.295	0.405	0.151	0.125	08/01/2024 10:58	WG2332445
(T) Barium-133	*99.7*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-06 SAMPLE RESULTS - 06

Collected date/time: 07/24/24 10:50 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.949	J	0.669	1.17	1.28	0.665	08/07/2024 20:21	WG2332193
(T) Barium	*89.4*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*97.5*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.93		0.840	1.29	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.98		0.508	0.625	0.193	0.147	08/01/2024 10:58	WG2332445
(T) Barium-133	*96.8*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-07 SAMPLE RESULTS - 07

Collected date/time: 07/24/24 11:50 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.592	J	0.591	1.08	1.14	0.594	08/07/2024 20:21	WG2332193
(T) Barium	*116*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*90.7*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.745	J	0.613	1.16	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.153	J	0.162	0.301	0.186	0.153	08/01/2024 10:58	WG2332445
(T) Barium-133	*80.3*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-08 SAMPLE RESULTS - 08

Collected date/time: 07/24/24 12:43 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.0146	U	0.349	0.640	0.683	0.356	08/07/2024 20:21	WG2332193
(T) Barium	*112*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*91.4*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.06		0.521	0.709	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.06		0.387	0.506	0.189	0.148	08/01/2024 10:58	WG2332445
(T) Barium-133	*92.3*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-09 SAMPLE RESULTS - 09

Collected date/time: 07/24/24 13:45 L1760782

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.803		0.381	0.658	0.719	0.374	08/07/2024 20:21	WG2332193
(T) Barium	*127*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*100*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.858		0.429	0.798	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0550	U	0.198	0.329	0.346	0.232	08/01/2024 10:58	WG2332445
(T) Barium-133	*83.9*					*30.0-143*	*08/01/2024 10:58*	WG2332445

HG04594-10 SAMPLE RESULTS - 10

Collected date/time: 07/24/24 15:40 L1760782

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.615		0.273	0.559	0.516	0.273	08/07/2024 20:21	WG2332193
(T) Barium	*95.5*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*98.9*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.876		0.331	0.538	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.261		0.188	0.302	0.154	0.127	08/01/2024 10:58	WG2332445
(T) Barium-133	*109*					*30.0-143*	*08/01/2024 10:58*	WG2332445

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	2.38		0.356	0.643	0.623	0.326	08/07/2024 20:21	WG2332193
(T) Barium	*138*					*30.0-143*	*08/07/2024 20:21*	WG2332193
(T) Yttrium	*93.6*					*30.0-136*	*08/07/2024 20:21*	WG2332193

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.09		0.497	0.667	08/07/2024 20:21	WG2332445

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.714		0.347	0.485	0.238	0.181	08/01/2024 10:58	WG2332445
(T) Barium-133	*83.9*					*30.0-143*	*08/01/2024 10:58*	WG2332445

Method Blank (MB)

(MB) R4104612-1 08/07/24 15:49

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.0445	U	0.154	0.294	0.154
(T) Barium	*124*		*124*		
(T) Yttrium	*94.3*		*94.3*		

L1760782-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1760782-10 08/07/24 20:21 • (DUP) R4104612-5 08/07/24 15:49

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.615	0.273	0.516	0.273	-0.102	0.370	0.705	0.367	200	1.56	U	20	3
(T) Barium	*95.5*				*105*	*105*							
(T) Yttrium	*98.9*				*95.1*	*95.1*							

Laboratory Control Sample (LCS)

(LCS) R4104612-2 08/07/24 15:49

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.02	100	80.0-120	
(T) Barium			*127*		
(T) Yttrium			*90.5*		

L1756155-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1756155-17 08/07/24 15:49 • (MS) R4104612-3 08/07/24 15:49 • (MSD) R4104612-4 08/07/24 15:49

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	2.42	22.0	18.1	117	94.0	1	70.0-130			19.3		20
(T) Barium		*163*			*112*	*157*				C1			
(T) Yttrium		*89.0*			*99.8*	*95.7*							

Radiochemistry by Method SM7500Ra B M

Method Blank (MB)

(MB) R4103049-2 08/01/24 13:54

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.139		0.0849	0.0765	0.0557
(T) Barium-133	*84.3*		*84.3*		

L1761235-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1761235-08 08/01/24 12:16 • (DUP) R4103049-1 08/01/24 10:58

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.173	0.203	0.279	0.192	0.310	0.224	0.214	0.162	57.0	0.455		20	3
(T) Barium-133	*85.1*				*90.5*	*90.5*							

Laboratory Control Sample (LCS)

(LCS) R4103049-3 08/01/24 13:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.03	101	75.0-125	
(T) Barium-133			*59.3*		

L1758818-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1758818-03 08/05/24 23:32 • (MS) R4103049-4 08/05/24 23:32 • (MSD) R4103049-5 08/05/24 23:32

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.439	18.6	17.8	90.6	86.8	1	75.0-125			4.18		20
(T) Barium-133		*52.8*			*97.5*	*74.5*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG04594

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1760782

Sample: HG04594-01
Name: OM07

Sampled: 07/24/24 14:00
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 14:00	MS/MSD

Sample: HG04594-02
Name: OR13D

Sampled: 07/24/24 11:34
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 11:34	

Sample: HG04594-03
Name: OR13S

Sampled: 07/24/24 12:39
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 12:39	

Sample: HG04594-04
Name: OR14D

Sampled: 07/24/24 15:13
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 15:13	

Sample: HG04594-05
Name: OR04D

Sampled: 07/24/24 14:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 14:50	

SUBCONTRACT ORDER
Transfer Chain of Custody

B241

Pace Analytical Services, LLC

HG04594

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LT160782

Sample: HG04594-06
Name: OM15D

Sampled: 07/24/24 10:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 10:50	

Sample: HG04594-07
Name: OM22D

Sampled: 07/24/24 11:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 11:50	

Sample: HG04594-08
Name: OM23D

Sampled: 07/24/24 12:43
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 12:43	

Sample: HG04594-09
Name: OM25S

Sampled: 07/24/24 13:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 13:45	

Sample: HG04594-10
Name: BA03L

Sampled: 07/24/24 15:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 15:40	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
HG04594

SENDING LABORATORY

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

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1760782

Sample: HG04594-11
Name: EB #1

Sampled: 07/24/24 15:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-11

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/06/24 16:00	01/20/25 15:45	MS/MSD

Sample Receipt Checklist

			If Applicable	
COC Seal Present/Intact:	Y N		VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N		Pres. Correct/Check:	Y N
Bottles arrive intact:	Y N			
Correct bottles used:	Y N			
Sufficient volume sent:	Y N			
RA Screen <0.5 mR/hr:	Y N			

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 7/25/24 Total # of Containers: 11 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
[signature]	7/25/24 1410	CROPER	0900 07/26/24

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

L1760782

Tracking Numbers	[redacted]	Temperature
7776 1271 6877		19.0+0.3-19.3 EDA9
7774 1267 8118		22.4+0.3-22.7 EDA9

Name

Date

ANALYTICAL REPORT

August 16, 2024

Pace IR - Peoria, IL

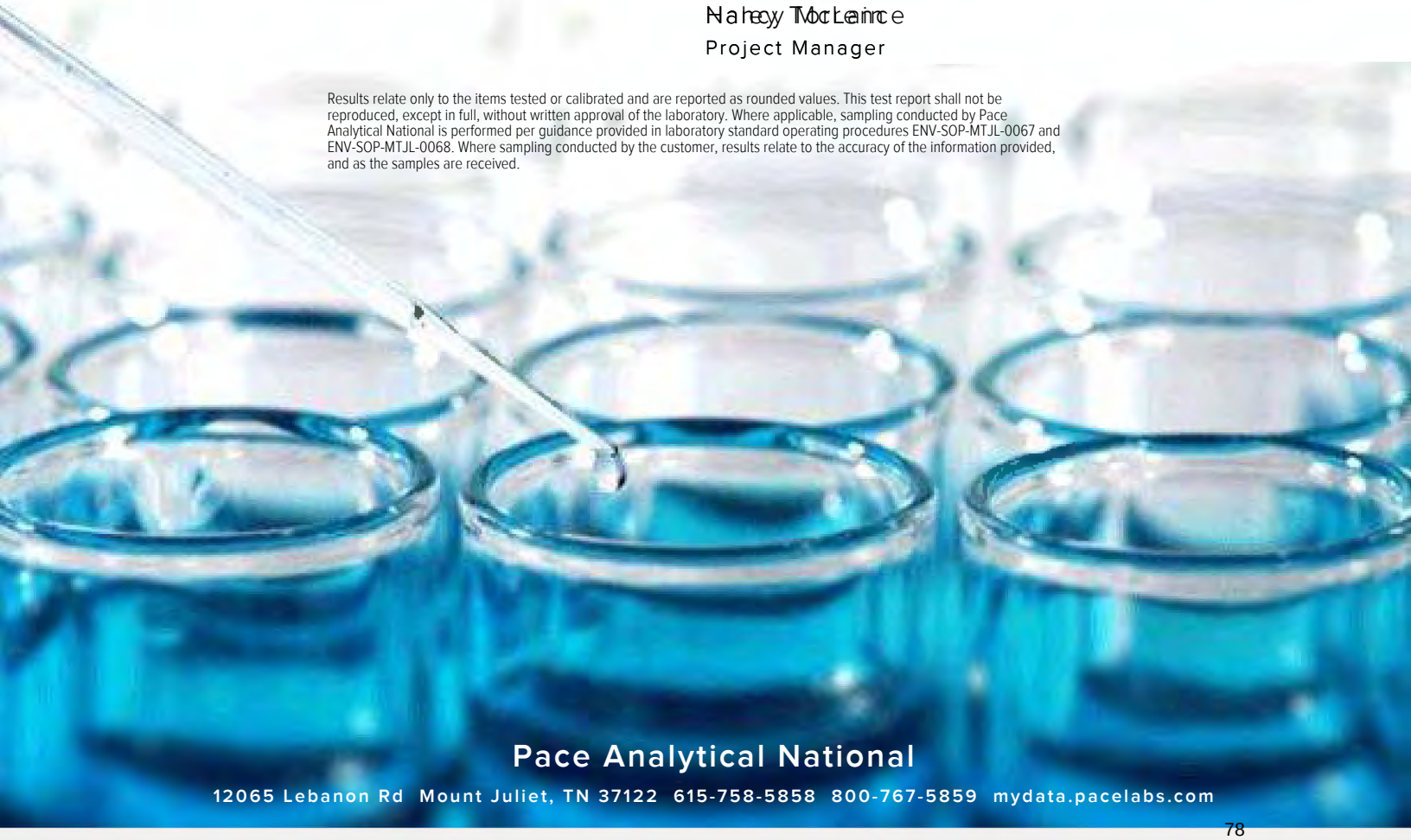
Sample Delivery Group:	L1761598
Samples Received:	07/30/2024
Project Number:	HG04893
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Nancy McLaine
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SAMPLE SUMMARY

HG04893-01 L1761598-01 Non-Potable Water

Collected by | Collected date/time 07/25/24 10:50 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 19:17	ZRG	Mt. Juliet, TN

HG04893-02 L1761598-02 Non-Potable Water

Collected by | Collected date/time 07/25/24 11:00 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 19:17	ZRG	Mt. Juliet, TN

HG04893-03 L1761598-03 Non-Potable Water

Collected by | Collected date/time 07/25/24 12:00 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 19:17	ZRG	Mt. Juliet, TN

HG04893-04 L1761598-04 Non-Potable Water

Collected by | Collected date/time 07/25/24 12:35 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-05 L1761598-05 Non-Potable Water

Collected by | Collected date/time 07/25/24 13:00 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-06 L1761598-06 Non-Potable Water

Collected by | Collected date/time 07/25/24 14:01 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HG04893-07 L1761598-07 Non-Potable Water

Collected by | Collected date/time 07/25/24 14:40 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-08 L1761598-08 Non-Potable Water

Collected by | Collected date/time 07/25/24 14:40 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-09 L1761598-09 Non-Potable Water

Collected by | Collected date/time 07/25/24 11:00 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336014	1	08/05/24 22:58	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/12/24 22:42	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-11 L1761598-10 Non-Potable Water

Collected by | Collected date/time 07/25/24 12:30 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-12 L1761598-11 Non-Potable Water

Collected by | Collected date/time 07/25/24 14:29 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

HG04893-13 L1761598-12 Non-Potable Water

Collected by | Collected date/time 07/25/24 15:55 | Received date/time 07/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2333206	1	07/31/24 08:45	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2333206	1	07/31/24 08:45	08/01/24 23:41	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Nancy McLaine
Project Manager

HG04893-01 SAMPLE RESULTS - 01

Collected date/time: 07/25/24 10:50 L1761598

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.371	U	0.945	1.51	1.77	0.924	08/12/2024 22:42	WG2336014
(T) Barium	*37.6*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*95.3*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.20	J	1.00	1.78	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.834		0.338	0.457	0.162	0.133	08/01/2024 19:17	WG2333206
(T) Barium-133	*95.4*					*30.0-143*	*08/01/2024 19:17*	WG2333206

HG04893-02 SAMPLE RESULTS - 02

Collected date/time: 07/25/24 11:00 L1761598

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.662		0.347	0.634	0.633	0.332	08/12/2024 22:42	WG2336014
(T) Barium	*106*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*93.4*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.15		0.457	0.680	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.487		0.297	0.439	0.248	0.188	08/01/2024 19:17	WG2333206
(T) Barium-133	*80.5*					*30.0-143*	*08/01/2024 19:17*	WG2333206

HG04893-05 SAMPLE RESULTS - 03

Collected date/time: 07/25/24 12:00 L1761598

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.735		0.199	0.397	0.349	0.185	08/12/2024 22:42	WG2336014
(T) Barium	*108*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*108*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.19		0.339	0.399	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.453		0.275	0.406	0.193	0.160	08/01/2024 19:17	WG2333206
(T) Barium-133	*83.1*					*30.0-143*	*08/01/2024 19:17*	WG2333206

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HG04893-04 SAMPLE RESULTS - 04

Collected date/time: 07/25/24 12:35 L1761598

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.163	U	0.223	0.430	0.429	0.226	08/12/2024 22:42	WG2336014
(T) Barium	*117*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*92.1*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.706		0.439	0.490	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.706		0.378	0.526	0.236	0.195	08/01/2024 23:41	WG2333206
(T) Barium-133	*73.4*					*30.0-143*	*08/01/2024 23:41*	WG2333206

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HG04893-05 SAMPLE RESULTS - 05

Collected date/time: 07/25/24 13:00 L1761598

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.327	J	0.188	0.386	0.344	0.183	08/12/2024 22:42	WG2336014
(T) Barium	*104*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*109*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.660		0.378	0.527	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.333	J	0.328	0.505	0.399	0.296	08/01/2024 23:41	WG2333206
(T) Barium-133	*60.1*					*30.0-143*	*08/01/2024 23:41*	WG2333206

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.372	U	0.623	1.10	1.18	0.617	08/12/2024 22:42	WG2336014
(T) Barium	*95.3*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*114*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.377	U	0.684	1.21	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.377		0.282	0.419	0.262	0.206	08/01/2024 23:41	WG2333206
(T) Barium-133	*78.8*					*30.0-143*	*08/01/2024 23:41*	WG2333206

HG04893-07 SAMPLE RESULTS - 07

Collected date/time: 07/25/24 14:40 L1761598

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.925		0.377	0.662	0.681	0.360	08/12/2024 22:42	WG2336014
(T) Barium	*58.6*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*90.4*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.16		0.470	0.783	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.239	J	0.281	0.435	0.387	0.266	08/01/2024 23:41	WG2333206
(T) Barium-133	*71.1*					*30.0-143*	*08/01/2024 23:41*	WG2333206

HG04893-08 SAMPLE RESULTS - 08

Collected date/time: 07/25/24 14:40 L1761598

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.556	J	0.383	0.647	0.703	0.369	08/12/2024 22:42	WG2336014
(T) Barium	*62.9*					*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*98.0*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.556	J	0.417	0.805	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.000	U	0.165	0.325	0.393	0.286	08/01/2024 23:41	WG2333206
(T) Barium-133	*65.7*					*30.0-143*	*08/01/2024 23:41*	WG2333206

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.0848	U	0.237	0.435	0.444	0.232	08/12/2024 22:42	WG2336014
(T) Barium	*180*	C1				*30.0-143*	*08/12/2024 22:42*	WG2336014
(T) Yttrium	*100*					*30.0-136*	*08/12/2024 22:42*	WG2336014

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.653		0.395	0.489	08/12/2024 22:42	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.568		0.316	0.451	0.205	0.169	08/01/2024 23:41	WG2333206
(T) Barium-133	*85.4*					*30.0-143*	*08/01/2024 23:41*	WG2333206

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.255	J	0.265	0.463	0.482	0.251	08/14/2024 19:49	WG2336016
(T) Barium	*105*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*109*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.608		0.353	0.520	08/14/2024 19:49	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.353		0.233	0.366	0.194	0.153	08/01/2024 23:41	WG2333206
(T) Barium-133	*92.5*					*30.0-143*	*08/01/2024 23:41*	WG2333206

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.636		0.234	0.445	0.414	0.218	08/14/2024 19:49	WG2336016
(T) Barium	*123*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*88.5*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.883		0.328	0.491	08/14/2024 19:49	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.247	J	0.230	0.376	0.264	0.201	08/01/2024 23:41	WG2333206
(T) Barium-133	*73.2*					*30.0-143*	*08/01/2024 23:41*	WG2333206

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.279	U	0.317	0.595	0.597	0.313	08/14/2024 19:49	WG2336016
(T) Barium	*126*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*108*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.379	J	0.407	0.629	08/14/2024 19:49	WG2333206

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.379		0.256	0.395	0.198	0.164	08/01/2024 23:41	WG2333206
(T) Barium-133	*79.2*					*30.0-143*	*08/01/2024 23:41*	WG2333206

Method Blank (MB)

(MB) R4106367-1 08/12/24 22:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.480		0.173	0.311	0.164
(T) Barium	*124*		*124*		
(T) Yttrium	*82.7*		*82.7*		

L1757026-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1757026-16 08/12/24 22:42 • (DUP) R4106367-5 08/12/24 22:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0389	0.844	1.59	0.833	1.17	0.374	0.670	0.350	187	1.23		20	3
(T) Barium	*50.1*				*112*	*112*							
(T) Yttrium	*79.8*				*90.4*	*90.4*							

Laboratory Control Sample (LCS)

(LCS) R4106367-2 08/12/24 22:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.36	87.1	80.0-120	
(T) Barium			*108*		
(T) Yttrium			*97.9*		

L1761598-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1761598-06 08/12/24 22:42 • (MS) R4106367-3 08/12/24 22:42 • (MSD) R4106367-4 08/12/24 22:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.372	15.5	13.5	93.1	81.0	1	70.0-130			13.9		20
(T) Barium		*95.3*			*103*	*114*							
(T) Yttrium		*114*			*95.9*	*119*							

WG2336016 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1761598-10,11,12

Method Blank (MB)

(MB) R4107576-1 08/14/24 19:49

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.0890	U	0.157	0.292	0.153
(T) Barium	*108*		*108*		
(T) Yttrium	*95.7*		*95.7*		

L1761175-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1761175-09 08/14/24 19:49 • (DUP) R4107576-5 08/14/24 19:49

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0577	0.274	0.513	0.270	-0.0742	0.371	0.695	0.362	0.000	0.0358	U	20	3
(T) Barium	*127*				*140*	*140*							
(T) Yttrium	*118*				*94.7*	*94.7*							

Laboratory Control Sample (LCS)

(LCS) R4107576-2 08/14/24 19:49

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.44	88.7	80.0-120	
(T) Barium			*128*		
(T) Yttrium			*112*		

L1765581-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1765581-01 08/14/24 19:49 • (MS) R4107576-3 08/14/24 19:49 • (MSD) R4107576-4 08/14/24 19:49

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.0529	15.4	14.6	91.9	87.6	1	70.0-130			4.80		20
(T) Barium		*142*			*120*	*120*							
(T) Yttrium		*97.6*			*111*	*91.5*							

Method Blank (MB)

(MB) R4102715-1 08/01/24 19:17

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0295	J	0.0471	0.0733	0.0525
(T) Barium-133	*74.6*		*74.6*		

L1761598-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1761598-12 08/01/24 23:41 • (DUP) R4102715-5 08/01/24 19:17

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.379	0.256	0.198	0.164	0.237	0.221	0.228	0.188	45.9	0.418		20	3
(T) Barium-133	*79.2*				*69.2*	*69.2*							

Laboratory Control Sample (LCS)

(LCS) R4102715-2 08/01/24 19:17

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.98	99.5	75.0-125	
(T) Barium-133			*77.2*		

L1761598-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1761598-02 08/01/24 19:17 • (MS) R4102715-3 08/01/24 19:17 • (MSD) R4102715-4 08/01/24 19:17

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.487	19.9	19.8	96.9	96.4	1	75.0-125			0.505		20
(T) Barium-133		*80.5*			*69.5*	*73.4*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC **L-138**

HG04893

SENDING LABORATORY	RECEIVING LABORATORY
PDC Laboratories, Inc. 2231 W Altorfer Dr Peoria, IL 61615 (800) 752-6651	Pace Analytical - Mt Juliet, Tn 12065 Lebanon Rd Mt Juliet, TN 37122 (615) 758-5858

LN1e1598

Sample: HG04893-01 **Name:** OM17
Sampled: 07/25/24 10:50 **Matrix:** Ground Water **Preservative:** HNO3, pH <2 -01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 10:50	

Sample: HG04893-02 **Name:** OM12
Sampled: 07/25/24 11:00 **Matrix:** Ground Water **Preservative:** HNO3, pH <2 -02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 11:00	

Sample: HG04893-03 **Name:** OM12D
Sampled: 07/25/24 12:00 **Matrix:** Ground Water **Preservative:** HNO3, pH <2 -03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 12:00	

Sample: HG04893-04 **Name:** OM16
Sampled: 07/25/24 12:35 **Matrix:** Ground Water **Preservative:** HNO3, pH <2 -04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 12:35	

Sample: HG04893-05 **Name:** OR19
Sampled: 07/25/24 13:00 **Matrix:** Ground Water **Preservative:** HNO3, pH <2 -05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 13:00	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
HG04893

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L761598

Sample: HG04893-06
Name: OM21
Sampled: 07/25/24 14:01
Matrix: Ground Water
Preservative: HNO3, pH <2
-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 14:01	

Sample: HG04893-07
Name: OM01
Sampled: 07/25/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2
-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 14:40	

Sample: HG04893-08
Name: OM01 Dup
Sampled: 07/25/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2
-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 14:40	

Sample: HG04893-09
Name: BA06
Sampled: 07/25/24 11:00
Matrix: Ground Water
Preservative: HNO3, pH <2
-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 11:00	

Sample: HG04893-11
Name: BA05
Sampled: 07/25/24 12:30
Matrix: Ground Water
Preservative: HNO3, pH <2
-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 12:30	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG04893

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LM61598

Sample: HG04893-12
Name: BA03

Sampled: 07/25/24 14:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-11

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 14:29	

Sample: HG04893-13
Name: BA04

Sampled: 07/25/24 15:55
Matrix: Ground Water
Preservative: HNO3, pH <2

-12

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/07/24 16:00	01/21/25 15:55	

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N	VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N	Pres. Correct/Check:	Y N
Bottles arrive intact:	Y N		
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 7/29/24 Total # of Containers: 12 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	7/29/24 0745	CROBERTS	07.30.24 0900

Sample Temperature Upon Receipt ____ °C
Sample(s) Received on Ice Y or N
Proper Bottles Received in Good Condition Y or N
Bottles Filled with Adequate Volume Y or N
Samples Received Within Hold Time Y or N
Date/Time Taken From Sample Bottle Y or N

L1761598

Tracking Numbers	Temperature
7776 5936 1800	22.6 + 0.3 = 22.9 EDA9
7776 5921 8296	20.3 + 0.3 = 20.6 EDA9

Name _____ Date _____

ANALYTICAL REPORT

August 16, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1762185
Samples Received:	07/31/2024
Project Number:	HG05252
Description:	HG05252

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By: Nancy F. McLaine

[Preliminary Report]

Nancy McLaine
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

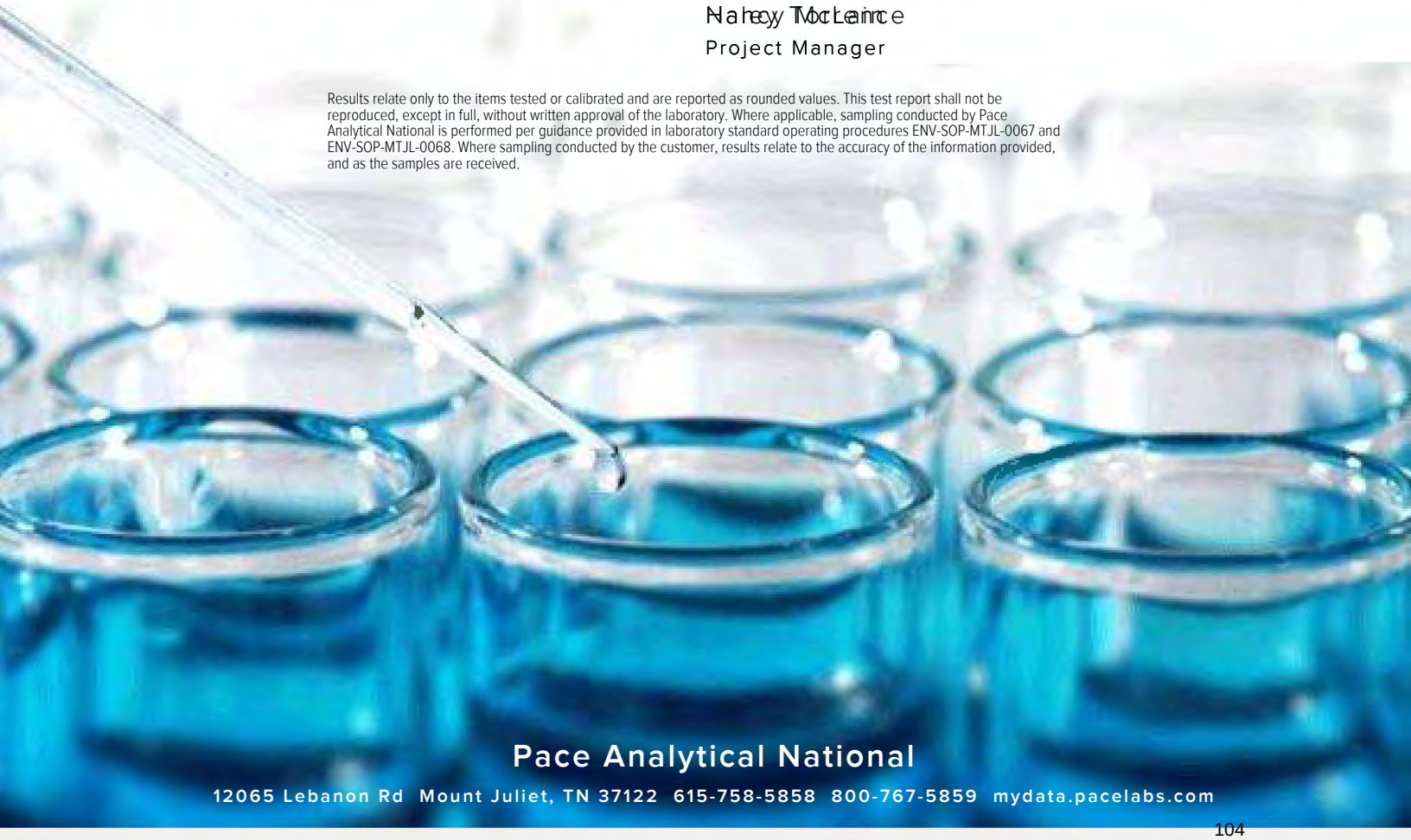


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SAMPLE SUMMARY

HG05252-01 L1762185-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 14:50	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/06/24 10:40	ZRG	Mt. Juliet, TN

HG05252-02 L1762185-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 11:15	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 10:06	ZRG	Mt. Juliet, TN

HG05252-03 L1762185-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 12:15	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 10:06	ZRG	Mt. Juliet, TN

HG05252-04 L1762185-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 13:51	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 19:49	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 10:06	ZRG	Mt. Juliet, TN

HG05252-05 L1762185-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 14:52	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 10:06	ZRG	Mt. Juliet, TN

HG05252-06 L1762185-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 10:53	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 10:06	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HG05252-07 L1762185-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 14:48	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 14:19	ZRG	Mt. Juliet, TN

HG05252-08 L1762185-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/29/24 14:12	07/31/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2336016	1	08/09/24 23:15	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2334260	1	08/01/24 11:57	08/14/24 20:39	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2334260	1	08/01/24 11:57	08/03/24 14:19	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Nancy McLaine
Project Manager

HG05252-04 SAMPLE RESULTS - 01

Collected date/time: 07/29/24 14:50 L1762185

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.170	U	0.339	0.616	0.631	0.330	08/14/2024 19:49	WG2336016
(T) Barium	*127*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*101*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.388	J	0.494	0.780	08/14/2024 19:49	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.388	J	0.359	0.503	0.458	0.296	08/06/2024 10:40	WG2334260
(T) Barium-133	*76.9*					*30.0-143*	*08/06/2024 10:40*	WG2334260

HG05252-02 SAMPLE RESULTS - 02

Collected date/time: 07/29/24 11:15 L1762185

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.000	U	0.331	0.608	0.611	0.320	08/14/2024 19:49	WG2336016
(T) Barium	*123*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*108*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.621	J	0.465	0.651	08/14/2024 19:49	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.621		0.327	0.465	0.225	0.176	08/03/2024 10:06	WG2334260
(T) Barium-133	*77.7*					*30.0-143*	*08/03/2024 10:06*	WG2334260

HG05252-03 SAMPLE RESULTS - 03

Collected date/time: 07/29/24 12:15 L1762185

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0446	U	0.206	0.404	0.381	0.201	08/14/2024 19:49	WG2336016
(T) Barium	*111*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*108*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.366	J	0.344	0.509	08/14/2024 19:49	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.321	J	0.276	0.405	0.337	0.226	08/03/2024 10:06	WG2334260
(T) Barium-133	*86.2*					*30.0-143*	*08/03/2024 10:06*	WG2334260

HG05252-04 SAMPLE RESULTS - 04

Collected date/time: 07/29/24 13:51 L1762185

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.143	U	0.199	0.397	0.365	0.193	08/14/2024 19:49	WG2336016
(T) Barium	*106*					*30.0-143*	*08/14/2024 19:49*	WG2336016
(T) Yttrium	*104*					*30.0-136*	*08/14/2024 19:49*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.292	J	0.253	0.407	08/14/2024 19:49	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.149	J	0.157	0.287	0.181	0.149	08/03/2024 10:06	WG2334260
(T) Barium-133	*85.3*					*30.0-143*	*08/03/2024 10:06*	WG2334260

HG05252-05 SAMPLE RESULTS - 05

Collected date/time: 07/29/24 14:53 L1762185

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.240	U	0.222	0.420	0.456	0.238	08/14/2024 20:39	WG2336016
(T) Barium	*114*					*30.0-143*	*08/14/2024 20:39*	WG2336016
(T) Yttrium	*101*					*30.0-136*	*08/14/2024 20:39*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.261	J	0.313	0.514	08/14/2024 20:39	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.261		0.221	0.358	0.237	0.180	08/03/2024 10:06	WG2334260
(T) Barium-133	*84.3*					*30.0-143*	*08/03/2024 10:06*	WG2334260

SAMPLE RESULTS - 06

HG05252-06
Collected date/time: 07/29/24 10:53
L1762185

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.193	U	0.197	0.395	0.408	0.215	08/14/2024 20:39	WG2336016
(T) Barium	*122*					*30.0-143*	*08/14/2024 20:39*	WG2336016
(T) Yttrium	*108*					*30.0-136*	*08/14/2024 20:39*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.350	J	0.308	0.447	08/14/2024 20:39	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.350		0.237	0.363	0.183	0.152	08/03/2024 10:06	WG2334260
(T) Barium-133	*87.5*					*30.0-143*	*08/03/2024 10:06*	WG2334260

HG05252-07 SAMPLE RESULTS - 07

Collected date/time: 07/29/24 14:48 L1762185

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0810	U	0.193	0.391	0.390	0.206	08/14/2024 20:39	WG2336016
(T) Barium	*121*					*30.0-143*	*08/14/2024 20:39*	WG2336016
(T) Yttrium	*107*					*30.0-136*	*08/14/2024 20:39*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.386	J	0.299	0.444	08/14/2024 20:39	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.305		0.228	0.376	0.212	0.166	08/03/2024 14:19	WG2334260
(T) Barium-133	*81.5*					*30.0-143*	*08/03/2024 14:19*	WG2334260

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 08

HG05252-08
Collected date/time: 07/29/24 14:12
L1762185

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.669		0.311	0.589	0.607	0.318	08/14/2024 20:39	WG2336016
(T) Barium	*137*					*30.0-143*	*08/14/2024 20:39*	WG2336016
(T) Yttrium	*110*					*30.0-136*	*08/14/2024 20:39*	WG2336016

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.49		0.513	0.695	08/14/2024 20:39	WG2334260

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.824		0.408	0.539	0.339	0.237	08/03/2024 14:19	WG2334260
(T) Barium-133	*85.1*					*30.0-143*	*08/03/2024 14:19*	WG2334260

Method Blank (MB)

(MB) R4107576-1 08/14/24 19:49

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.0890	U	0.157	0.292	0.153
(T) Barium	*108*		*108*		
(T) Yttrium	*95.7*		*95.7*		

L1761175-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1761175-09 08/14/24 19:49 • (DUP) R4107576-5 08/14/24 19:49

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	-0.0577	0.274	0.513	0.270	-0.0742	0.371	0.695	0.362	0.000	0.0358	U	20	3
(T) Barium	*127*				*140*	*140*							
(T) Yttrium	*118*				*94.7*	*94.7*							

Laboratory Control Sample (LCS)

(LCS) R4107576-2 08/14/24 19:49

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.44	88.7	80.0-120	
(T) Barium			*128*		
(T) Yttrium			*112*		

L1765581-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1765581-01 08/14/24 19:49 • (MS) R4107576-3 08/14/24 19:49 • (MSD) R4107576-4 08/14/24 19:49

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.0529	15.4	14.6	91.9	87.6	1	70.0-130			4.80		20
(T) Barium		*142*			*120*	*120*							
(T) Yttrium		*97.6*			*111*	*91.5*							

Method Blank (MB)

(MB) R4103268-1 08/03/24 10:05

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0112	J	0.0164	0.0262	0.0198
(T) Barium-133	*83.9*		*83.9*		

L1762185-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1762185-08 08/03/24 14:19 • (DUP) R4103268-3 08/03/24 10:05

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.824	0.408	0.339	0.237	0.566	0.292	0.176	0.146	37.1	0.514		20	3
(T) Barium-133	*85.1*				*89.4*	*89.4*							

Laboratory Control Sample (LCS)

(LCS) R4103268-2 08/03/24 10:05

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.31	106	75.0-125	
(T) Barium-133			*88.7*		

L1762185-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762185-01 08/06/24 10:40 • (MS) R4103268-4 08/06/24 10:40 • (MSD) R4103268-5 08/06/24 10:40

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.388	16.4	17.9	80.0	87.7	1	75.0-125			8.92		20
(T) Barium-133		*76.9*			*76.9*	*72.2*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG05252

D223

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LIMS 2465

Sample: HG05252-01
Name: G50S

Sampled: 07/29/24 14:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 14:50	

Sample: HG05252-02
Name: BA02L

Sampled: 07/29/24 11:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 11:15	

Sample: HG05252-03
Name: OR06A

Sampled: 07/29/24 12:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 12:15	

Sample: HG05252-04
Name: OM04S

Sampled: 07/29/24 13:51
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 13:51	

Sample: HG05252-05
Name: OR02

Sampled: 07/29/24 14:52
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 14:52	

SUBCONTRACT ORDER

Transfer Chain of Custody

Pace Analytical Services, LLC

HG05252

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LB72185

Sample: HG05252-06
Name: G51S

Sampled: 07/29/24 10:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 10:53	

Sample: HG05252-07
Name: G54L

Sampled: 07/29/24 14:48
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 14:48	

Sample: HG05252-08
Name: G54S

Sampled: 07/29/24 14:12
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/09/24 16:00	01/25/25 14:12	

AM80J-AMB 8019

(8)

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Preservation Correct/Check:	Y N
Correct Bottles Used:	Y N		
Sufficient Volume Sent:	Y N		
PA Screen <0.5 mR/hr:	Y N		

PH-10BOH4321

TRC-32234229

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 7/30/24 Total # of Containers: 8 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	7/30/24 0825		7.31.24 1030

Sample Temperature Upon Receipt _____ °C
Sample(s) Received on Ice Y or N
Proper Bottles Received in Good Condition Y or N
Bottles Filled with Adequate Volume Y or N
Samples Received Within Hold Time Y or N
Date/Time Taken From Sample Bottle Y or N

ANALYTICAL REPORT

August 20, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1764370
Samples Received:	08/06/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

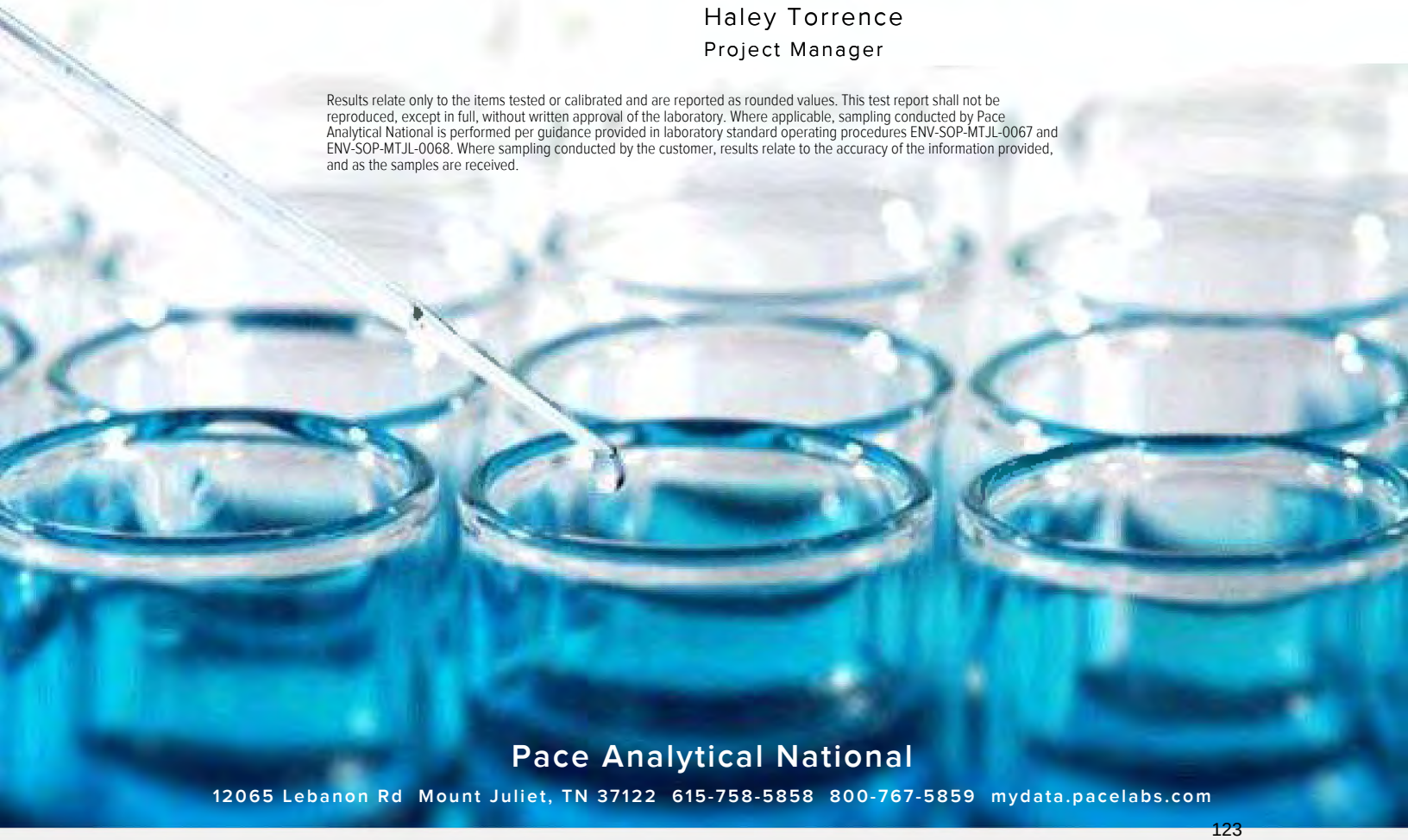


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SAMPLE SUMMARY

HG05510-01 L1764370-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/30/24 10:04	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05510-02 L1764370-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/30/24 11:16	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05510-03 L1764370-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/30/24 12:10	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05510-04 L1764370-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/30/24 13:19	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05510-05 L1764370-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/30/24 14:15	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

SAMPLE RESULTS - 01

HG05510-01
Collected date/time: 07/30/24 10:04
L1764370

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	2.80		0.603	1.08	1.04	0.547	08/18/2024 15:09	WG2340011
(T) Barium	*112*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*95.0*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.19		0.649	1.06	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.381		0.239	0.466	0.225	0.161	08/13/2024 00:20	WG2339657
(T) Barium-133	*97.4*					*30.0-143*	*08/13/2024 00:20*	WG2339657

SAMPLE RESULTS - 02

HG05510-02 L1764370
Collected date/time: 07/30/24 11:16

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	5.14		1.81	2.93	3.24	1.70	08/18/2024 15:09	WG2340011
(T) Barium	*30.5*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*111*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	7.34		1.89	3.24	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	2.20		0.540	1.53	0.180	0.141	08/13/2024 00:20	WG2339657
(T) Barium-133	*104*					*30.0-143*	*08/13/2024 00:20*	WG2339657

HG05510-03 SAMPLE RESULTS - 03

Collected date/time: 07/30/24 12:10 L1764370

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.254	U	0.553	1.02	1.03	0.540	08/18/2024 15:09	WG2340011
(T) Barium	*122*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*103*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.57		0.693	1.05	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.32		0.417	1.00	0.193	0.147	08/13/2024 00:20	WG2339657
(T) Barium-133	*108*					*30.0-143*	*08/13/2024 00:20*	WG2339657

HG05510-04 SAMPLE RESULTS - 04

Collected date/time: 07/30/24 13:19 L1764370

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.42		0.437	0.900	0.771	0.410	08/18/2024 15:09	WG2340011
(T) Barium	*154*	C1				*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*99.7*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.75		0.486	0.787	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.334		0.213	0.413	0.157	0.130	08/13/2024 00:20	WG2339657
(T) Barium-133	*114*					*30.0-143*	*08/13/2024 00:20*	WG2339657

SAMPLE RESULTS - 05

HG05510-05
Collected date/time: 07/30/24 14:15
L1764370

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.728	U	0.252	0.530	0.509	0.269	08/18/2024 15:09	WG2340011
(T) Barium	*119*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*103*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0673	U	0.275	0.538	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0673	J	0.109	0.193	0.173	0.142	08/13/2024 00:20	WG2339657
(T) Barium-133	*91.4*					*30.0-143*	*08/13/2024 00:20*	WG2339657

Method Blank (MB)

(MB) R4108927-1 08/18/24 15:09

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.191	J	0.140	0.258	0.136
(T) Barium	*106*		*106*		
(T) Yttrium	*106*		*106*		

L1765840-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1765840-01 08/18/24 15:09 • (DUP) R4108927-5 08/18/24 15:09

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.612	0.326	0.591	0.310	1.31	0.337	0.591	0.309	72.4	1.48		20	3
(T) Barium	*119*				*115*	*115*							
(T) Yttrium	*104*				*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R4108927-2 08/18/24 15:09

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.86	97.2	80.0-120	
(T) Barium			*115*		
(T) Yttrium			*97.3*		

L1764366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1764366-01 08/18/24 15:09 • (MS) R4108927-3 08/18/24 15:09 • (MSD) R4108927-4 08/18/24 15:09

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.793	16.6	16.0	99.3	96.0	1	70.0-130			3.43		20
(T) Barium		*119*			*108*	*113*							
(T) Yttrium		*99.1*			*95.5*	*95.7*							

Method Blank (MB)

(MB) R4106591-1 08/13/24 00:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0239	U	0.0595	0.0982	0.0655
(T) Barium-133	*89.7*		*89.7*		

L1764366-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1764366-01 08/13/24 00:20 • (DUP) R4106591-5 08/13/24 00:20

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.112	0.141	0.185	0.153	0.0366	0.204	0.381	0.260	102	0.305	U	20	3
(T) Barium-133	*93.6*				*85.5*	*85.5*							

Laboratory Control Sample (LCS)

(LCS) R4106591-2 08/13/24 00:20

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.57	91.4	75.0-125	
(T) Barium-133			*95.2*		

L1764370-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1764370-05 08/13/24 00:20 • (MS) R4106591-3 08/13/24 00:20 • (MSD) R4106591-4 08/13/24 00:20

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0673	18.7	18.9	93.4	94.3	1	75.0-125			0.956		20
(T) Barium-133		*91.4*			*103*	*102*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

Qualifier	Description
C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG05510

L1764370

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HG05510-01
Name: OR03D

Sampled: 07/30/24 10:04
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/12/24 16:00	01/26/25 10:04	

Sample: HG05510-02
Name: OM26

Sampled: 07/30/24 11:16
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/12/24 16:00	01/26/25 11:16	

Sample: HG05510-03
Name: OM27

Sampled: 07/30/24 12:10
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/12/24 16:00	01/26/25 12:10	

Sample: HG05510-04
Name: OM28

Sampled: 07/30/24 13:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/12/24 16:00	01/26/25 13:19	

Sample: HG05510-05
Name: EB #2

Sampled: 07/30/24 14:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/12/24 16:00	01/26/25 14:15	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG05510

L-020

L1764370

Sample Receipt Checklist 7778 0015 9625

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

21.1+0.3=21.4 MSA9

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 8/5/24 Total # of Containers: 5 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	8/5/24 1450	CBONDS	08.06.24 0900

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

August 20, 2024

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Pace IR - Peoria, IL

Sample Delivery Group:	L1764371
Samples Received:	08/06/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HG05745-01 L1764371-01 Non-Potable Water

Collected by | Collected date/time 07/31/24 14:05 | Received date/time 08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05745-02 L1764371-02 Non-Potable Water

Collected by | Collected date/time 07/31/24 12:58 | Received date/time 08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05745-03 L1764371-03 Non-Potable Water

Collected by | Collected date/time 07/31/24 12:47 | Received date/time 08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HG05745-04 L1764371-04 Non-Potable Water

Collected by | Collected date/time 07/31/24 11:43 | Received date/time 08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HG05745-01 SAMPLE RESULTS - 01

Collected date/time: 07/31/24 14:05 L1764371

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.01		0.253	0.531	0.437	0.233	08/18/2024 15:09	WG2340011
(T) Barium	*105*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*99.4*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.43		0.347	0.471	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.418		0.238	0.472	0.175	0.137	08/13/2024 00:20	WG2339657
(T) Barium-133	*103*					*30.0-143*	*08/13/2024 00:20*	WG2339657

SAMPLE RESULTS - 02

HG05745-02 L1764371
Collected date/time: 07/31/24 12:58

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.658	U	0.401	0.687	0.766	0.399	08/18/2024 15:09	WG2340011
(T) Barium	*118*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*94.1*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.119	U	0.432	0.800	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.119	J	0.160	0.268	0.232	0.172	08/13/2024 00:20	WG2339657
(T) Barium-133	*89.5*					*30.0-143*	*08/13/2024 00:20*	WG2339657

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE RESULTS - 03

HG05745-05
Collected date/time: 07/31/24 12:47
L1764371

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.424	J	0.276	0.553	0.505	0.267	08/18/2024 15:09	WG2340011
(T) Barium	*106*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*106*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.545		0.309	0.535	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.121	J	0.138	0.252	0.177	0.139	08/13/2024 00:20	WG2339657
(T) Barium-133	*101*					*30.0-143*	*08/13/2024 00:20*	WG2339657

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.0152	U	0.324	0.601	0.608	0.319	08/18/2024 15:09	WG2340011
(T) Barium	*117*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*108*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0928	U	0.344	0.627	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0928	J	0.116	0.193	0.153	0.126	08/13/2024 00:20	WG2339657
(T) Barium-133	*98.3*					*30.0-143*	*08/13/2024 00:20*	WG2339657

WG2340011 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1764371-01,02,03,04

Method Blank (MB)

(MB) R4108927-1 08/18/24 15:09

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.191	J	0.140	0.258	0.136
(T) Barium	*106*		*106*		
(T) Yttrium	*106*		*106*		

L1765840-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1765840-01 08/18/24 15:09 • (DUP) R4108927-5 08/18/24 15:09

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.612	0.326	0.591	0.310	1.31	0.337	0.591	0.309	72.4	1.48		20	3
(T) Barium	*119*				*115*	*115*							
(T) Yttrium	*104*				*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R4108927-2 08/18/24 15:09

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.86	97.2	80.0-120	
(T) Barium			*115*		
(T) Yttrium			*97.3*		

L1764366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1764366-01 08/18/24 15:09 • (MS) R4108927-3 08/18/24 15:09 • (MSD) R4108927-4 08/18/24 15:09

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.793	16.6	16.0	99.3	96.0	1	70.0-130			3.43		20
(T) Barium		*119*			*108*	*113*							
(T) Yttrium		*99.1*			*95.5*	*95.7*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1764371-01,02,03,04

Method Blank (MB)

(MB) R4106591-1 08/13/24 00:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0239	U	0.0595	0.0982	0.0655
(T) Barium-133	*89.7*		*89.7*		

L1764366-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1764366-01 08/13/24 00:20 • (DUP) R4106591-5 08/13/24 00:20

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.112	0.141	0.185	0.153	0.0366	0.204	0.381	0.260	102	0.305	U	20	3
(T) Barium-133	*93.6*				*85.5*	*85.5*							

Laboratory Control Sample (LCS)

(LCS) R4106591-2 08/13/24 00:20

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.57	91.4	75.0-125	
(T) Barium-133			*95.2*		

L1764370-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1764370-05 08/13/24 00:20 • (MS) R4106591-3 08/13/24 00:20 • (MSD) R4106591-4 08/13/24 00:20

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0673	18.7	18.9	93.4	94.3	1	75.0-125			0.956		20
(T) Barium-133		*91.4*			*103*	*102*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG05745

L1764371

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HG05745-01
Name: G60L

Sampled: 07/31/24 14:05
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/13/24 16:00	01/27/25 14:05	

Sample: HG05745-02
Name: R61L

Sampled: 07/31/24 12:58
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/13/24 16:00	01/27/25 12:58	

Sample: HG05745-03
Name: G61S

Sampled: 07/31/24 12:47
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/13/24 16:00	01/27/25 12:47	

Sample: HG05745-04
Name: G64L

Sampled: 07/31/24 11:43
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/13/24 16:00	01/27/25 11:43	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HG05745

L-021

LT64371

7778 0015 9625

Sample Receipt Checklist

			If Applicable	
COC Seal Present/Intact:	Y N			
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N	
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N	
Correct bottles used:	Y N			
Sufficient volume sent:	Y N			
RA Screen <0.5 mR/hr:	Y N			

21.1+0.3=21.4 MSA9

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 8/5/21 Total # of Containers: 4 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	8/5/24 1455	CARRIER	08.06.24 0900

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

August 20, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1764366
Samples Received:	08/06/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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Qc: Quality Control Summary 10
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Sc: Sample Chain of Custody 14

SAMPLE SUMMARY

HH00175-01 L1764366-01 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		08/01/24 13:40	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HH00175-02 L1764366-02 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		08/01/24 13:12	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HH00175-03 L1764366-03 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		08/01/24 10:30	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HH00175-04 L1764366-04 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		08/01/24 12:19	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

HH00175-05 L1764366-05 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		08/01/24 13:29	08/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2340011	1	08/13/24 16:25	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2339657	1	08/09/24 12:21	08/18/24 15:09	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2339657	1	08/09/24 12:21	08/13/24 00:20	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HH00175-01 SAMPLE RESULTS - 01

Collected date/time: 08/01/24 13:40 L1764366

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.793	U	0.553	1.02	1.06	0.553	08/18/2024 15:09	WG2340011
(T) Barium	*119*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*99.1*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.112	U	0.571	1.08	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.112	J	0.141	0.243	0.185	0.153	08/13/2024 00:20	WG2339657
(T) Barium-133	*93.6*					*30.0-143*	*08/13/2024 00:20*	WG2339657

SAMPLE RESULTS - 02

HH00175-02
Collected date/time: 08/01/24 13:12
L1764366

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.350	U	0.320	0.600	0.612	0.320	08/18/2024 15:09	WG2340011
(T) Barium	*120*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*98.5*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.470	J	0.426	0.657	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.470		0.281	0.547	0.240	0.178	08/13/2024 00:20	WG2339657
(T) Barium-133	*103*					*30.0-143*	*08/13/2024 00:20*	WG2339657

HH00175-03 SAMPLE RESULTS - 03

Collected date/time: 08/01/24 10:30 L1764366

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.230	U	0.270	0.550	0.502	0.265	08/18/2024 15:09	WG2340011
(T) Barium	*119*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*97.9*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.410	J	0.323	0.543	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.180	J	0.178	0.302	0.207	0.162	08/13/2024 00:20	WG2339657
(T) Barium-133	*100*					*30.0-143*	*08/13/2024 00:20*	WG2339657

SAMPLE RESULTS - 04

HH00175-04
Collected date/time: 08/01/24 12:19
L1764366

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.252	U	0.353	0.630	0.665	0.346	08/18/2024 15:09	WG2340011
(T) Barium	*116*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*107*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0680	U	0.389	0.720	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0680	U	0.163	0.244	0.275	0.189	08/13/2024 00:20	WG2339657
(T) Barium-133	*104*					*30.0-143*	*08/13/2024 00:20*	WG2339657

SAMPLE RESULTS - 05

HH00175-05
Collected date/time: 08/01/24 13:29
L1764366

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.253	U	0.298	0.581	0.554	0.291	08/18/2024 15:09	WG2340011
(T) Barium	*113*					*30.0-143*	*08/18/2024 15:09*	WG2340011
(T) Yttrium	*96.7*					*30.0-136*	*08/18/2024 15:09*	WG2340011

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.403	J	0.337	0.583	08/18/2024 15:09	WG2339657

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.150	J	0.158	0.288	0.182	0.150	08/13/2024 00:20	WG2339657
(T) Barium-133	*96.0*					*30.0-143*	*08/13/2024 00:20*	WG2339657

WG2340011 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1764366-01,02,03,04,05

Method Blank (MB)

(MB) R4108927-1 08/18/24 15:09

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.191	J	0.140	0.258	0.136
(T) Barium	*106*		*106*		
(T) Yttrium	*106*		*106*		

L1765840-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1765840-01 08/18/24 15:09 • (DUP) R4108927-5 08/18/24 15:09

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.612	0.326	0.591	0.310	1.31	0.337	0.591	0.309	72.4	1.48		20	3
(T) Barium	*119*				*115*	*115*							
(T) Yttrium	*104*				*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R4108927-2 08/18/24 15:09

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.86	97.2	80.0-120	
(T) Barium			*115*		
(T) Yttrium			*97.3*		

L1764366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1764366-01 08/18/24 15:09 • (MS) R4108927-3 08/18/24 15:09 • (MSD) R4108927-4 08/18/24 15:09

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	-0.793	16.6	16.0	99.3	96.0	1	70.0-130			3.43		20
(T) Barium		*119*			*108*	*113*							
(T) Yttrium		*99.1*			*95.5*	*95.7*							

WG2339657 QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1764366-01,02,03,04,05

Method Blank (MB)

(MB) R4106591-1 08/13/24 00:19

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0239	U	0.0595	0.0982	0.0655
(T) Barium-133	*89.7*		*89.7*		

L1764366-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1764366-01 08/13/24 00:20 • (DUP) R4106591-5 08/13/24 00:20

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.112	0.141	0.185	0.153	0.0366	0.204	0.381	0.260	102	0.305	U	20	3
(T) Barium-133	*93.6*				*85.5*	*85.5*							

Laboratory Control Sample (LCS)

(LCS) R4106591-2 08/13/24 00:20

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.57	91.4	75.0-125	
(T) Barium-133			*95.2*		

L1764370-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1764370-05 08/13/24 00:20 • (MS) R4106591-3 08/13/24 00:20 • (MSD) R4106591-4 08/13/24 00:20

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0673	18.7	18.9	93.4	94.3	1	75.0-125			0.956		20
(T) Barium-133		*91.4*			*103*	*102*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HH00175

L1764326

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HH00175-01 -01
Name: Field Blank
Sampled: 08/01/24 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 13:40	

Sample: HH00175-02 -02
Name: G64S
Sampled: 08/01/24 13:12
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 13:12	

Sample: HH00175-03 -03
Name: G02S
Sampled: 08/01/24 10:30
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 10:30	

Sample: HH00175-04 -04
Name: P60
Sampled: 08/01/24 12:19
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 12:19	

Sample: HH00175-05 -05
Name: G62L
Sampled: 08/01/24 13:29
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 13:29	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
HH00175

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1764326

Sample: HH00175-01
Name: Field Blank

Sampled: 08/01/24 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 13:40	

Sample: HH00175-02
Name: G64S

Sampled: 08/01/24 13:12
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 13:12	

Sample: HH00175-03
Name: G02S

Sampled: 08/01/24 10:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 10:30	

Sample: HH00175-04
Name: P60

Sampled: 08/01/24 12:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 12:19	

Sample: HH00175-05
Name: G62L

Sampled: 08/01/24 13:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	08/14/24 16:00	01/28/25 13:29	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
HH00175

L-019

L176436dp

Sample Receipt Checklist 7778 0045 9141

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N	20.1+0.3+20.4 MSA9	

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 8/5/24 Total # of Containers: 5 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	8/5/24 1500	CBONDERUD	08/06/24 0900

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

Rad HG04338

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information	Section B Required Project Information	Section C Invoice Information	Page 1 of 10
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No:	Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911 Fax	Project Name:	Project Manager:	Site Location: IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	STATE

ITEM #	SAMPLE ID (A-Z, 0-9, / , -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes (DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, TISSUE TS, OTHER OT)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	DM24D				7/23/24	1137		5	✓		✓																		
2	CR11					1304		5	✓		✓																		
3	AD1 Dup					1304		5	✓		✓																		
4	DR28					1435		5	✓		✓																		
5	DM17D					1526		5	✓		✓																		
6	CM16BS					1403		5	✓		✓																		
7	CM16S					1316		5	✓		✓																		
8	DM24S					1213		5	✓		✓																		
9	CM17S					1115		5	✓		✓																		
10	RA02					1428		4	✓		✓																		
11	RA01					1250		4	✓		✓																		
12	BA01 Dup					1250		4	✓		✓																		
13	GA05					1530		4	✓		✓																		
14	GA15					1153		4	✓		✓																		
15	GA18					1251		3	✓		✓																		
16	GA19				—	1410		3	✓		✓																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0		7/23/24	1649							
					7/23/24	1649	4.1	Y	N/A	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Samantha Davies

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 7/23/24

CHAIN-OF-CUSTODY / Analytical Request Document

H604594

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY: NPDES | GROUND WATER | DRINKING WATER | UST | RCRA | OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; TISSUE TS; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM07	WT	G	7/24/24	1400		5	X		X																		
2	DR13D	WT	G	7/24/24	1134		5	X		X																		
3	DR13S	WT	G	7/24/24	1239		5	X		X																		
4	DR14D	WT	G	7/24/24	1513		5	X		X																		
5	DR04D	WT	G	7/24/24	1450		5	X		X																		
6	OM15D	WT	G	7/24/24	1050		5	X		X																		
7	OM22D	WT	G	7/24/24	1150		5	X		X																		
8	OM23D	WT	G	7/24/24	1243		5	X		X																		
9	OM25S	WT	G	7/24/24	1345		5	X		X																		
10	603L	WT	G	7/24/24	1021		1		X																			
11	604S	WT	G	7/24/24	1056		3	X		X																		
12	606S	WT	G	7/24/24	1200		3	X		X																		
13	612S	WT	G	7/24/24	1400		3	X		X																		
14	609S	WT	G	7/24/24	1530		3	X		X																		
15	RAO#3L	WT	G	7/24/24	1540		4	X		X																		
16	EB #1	WT	G	7/24/24	1545		5	X		X																		

IR Gun # B Correction Factor (Deg C) +1

Observed Temp (Deg C) 40 Corrected Temp (Deg C) 41

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
7/24/24 DC-24Q2 Rev 0 dcb							
		7/24/24	1647		7.24.24	1647	4.1

PPP 7/24/24

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Kemberlan

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 07/24/24

Courier

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

HG04893 VS

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:

REGULATORY AGENCY: NPDES; GROUND WATER; DRINKING WATER; UST; RCRA; OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	F36L	WT	G	7/25/24	10:20		3																							
2	OM17	WT	G	7/25/24	10:50		4																							
3	OM12	WT	G	7/25/24	11:00		5																							
4	T46L	WT	G	7/25/24	11:16		3																							
5	OM12D	WT	G	7/25/24	12:00		5																							
6	T44L	WT	G	7/25/24	12:20		3																							
7	OM16	WT	G	7/25/24	12:35		4																							
8	OR19	WT	G	7/25/24	13:00		5																							
9	G70L	WT	G	7/25/24	13:40		3																							
10	OM21	WT	G	7/25/24	14.01		5																							
11	OM01	WT	G	7/25/24	14:40		5																							
12	OM01 Dup	WT	G	7/25/24	14:40		5																							
13	G71S	WT	G	7/25/24	14:45		3																							
14	BA06	WT	G	7/25/24	11:00		4																							
15	BA05	WT	G	7/25/24	12:30		4																							
16	BA03	WT	G	7/25/24	14:29		4																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0	Andy Weteska	7/25/24	17:06							
					7/25/24	1706	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andy Weteska

SIGNATURE of SAMPLER: Andy Weteska DATE Signed (MM/DD/YY): 7/25/24

HG04893 V3

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Page: 1 of 10
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference	UST RCRA OTHER
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager	Site Location STATE: IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #	

ITEM #	Section D: SAMPLE ID (A-Z 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA04		WT	G	7/25/24	15:55	4																								
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q2 Rev 0	Andy Wetzka	7/25/24	17:06							
					7/25/24	1706	3.1	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Andy Wetzka

SIGNATURE of SAMPLER: Andy Wetzka DATE Signed (MM/DD/YY): 7/25/24

HG05252 V8

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B ~~Required Project Information:~~

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

Section D Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G501	WT	G	7/29/24	1326		3	X		X																		
2	G505	WT	G	7/29/24	1450		4	X		X																		
3	G535	WT	G	7/29/24	1216		3	X		X																		
4	G531	WT	G	7/29/24	1113		3	X		X																		
5	BA02	WT	G	7/29/24	1115		4	X		X																		
6	OR06A	WT	G	7/29/24	1215		5	X		X																		
7	OMOU5	WT	G	7/29/24	1351		5	X		X																		
8	OR02	WT	G	7/29/24	1452		5	X		X																		
9	G51L	WT	G	7/29/24	1052		3	X		X																		
10	G51L Dup	WT	G	7/29/24	1052		3	X		X																		
11	G515	WT	G	7/29/24	1053		4	X		X																		
12	G52L	WT	G	7/29/24	1153		3	X		X																		
13	G525	WT	G	7/29/24	1240		3	X		X																		
14	G54L	WT	G	7/29/24	1448		4	X		X																		
15	G545	WT	G	7/29/24	1412		3	X		X																		
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q2 Rev 0		7/29/24	1613							
				VB	7/29/24	1613		Y	Y	Y

IR Gun # 13 Correction Factor (Deg C) TO.1

Observed Temp (Deg C) 3.2 Corrected Temp (Deg C) 3.3

Delivery Method: FedEx UPS Walk-in USPS Other

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rembelson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 07/29/24

MGOSSIO
To

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	2285

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

Page: 1 of 10

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	L55L	WT	G	7/30/24	1352		3	X		X																		
2	L103	WT	G	7/30/24	1236		3	X		X																		
3	P37L	WT	G	7/30/24	1217		3	X		X																		
4	P37L DUP	WT	G	7/30/24	1217		3	X		X																		
5	T45L	WT	G	7/30/24	1112		3	X		X																		
6	T43L	WT	G	7/30/24	1036		3	X		X																		
7	T43L DUP	WT	G	7/30/24	1036		3	X		X																		
8	OR03D				1004		5	X		X																		
9	OM26				1116		11	X	X	X																		
10	OM27				1210		11	X	X	X																		
11	OM28				1319		11	X	X	X																		
12	G56S				1111		3	X		X																		
13	G63L				1023		3	X		X																		
14	G63S				1002		3	X		X																		
15	G66L				1226		3	X		X																		
16	G66S				1248		3	X		X																		

R Gun # 3 Correction Factor Deg(C) -1

Observed Temp (Deg(C)) 32 Corrected Temp (Deg(C)) 33

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		7/30/24	1554				
					7-30-24	1554	33

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James Dodd

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 7/30/24

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

COURIER

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:
Company: Vistra Corp-Duck Creek
Address: 17751 North Cilco Rd
Canton, IL 61520
Email To: Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911 Fax:
Requested Due Date/TAT: 10 day

Section B Required Project Information:
Report To: Brian Voelker
Copy To: Sam Davies: samantha.davies@vistracorp.com
Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:
Project Name:
Project Number: 2285

Section C Invoice Information:
Attention: Brian Voelker
Company Name: Vistra Corp
Address: see Section A
Quote Reference:
Project Manager:
Profile #:

Page: 1 of 10

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location STATE: IL

Section D — Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G665 Dup			7/30/24	1248		3	X		X																		
2	G73L			1	1358		3	X		X																		
3	EB2				1415		11	X	X	X																		Filled after DM28
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

IR Gun #: 13 Correction Factor (Deg C): +1
Observed Temp (Deg C): 3.2 Corrected Temp (Deg C): 3.3
Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		7/30/24	1554				
					7.30.24	1554	3.3

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: James David
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 7/30/24

Temp in °C	Received on ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples intact (Y/N)

COURIER

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G15S		GW	G	7/31/24	1232		3	2		1																	460574 5
2	G55S		GW	G	7/31/24	1525		3	2		1																	
3	G60L		GW	G	7/31/24	1405		4	2		2																	
4	R61L		GW	G	7/31/24	1258		4	2		2																	
5	G61S		GW	G	7/31/24	1247		4	2		2																	
6	G64L		GW	G	7/31/24	1143		4	2		2																	
7	G67L		GW	G	7/31/24	1405		3	2		1																	
8	G67S		GW	G	7/31/24	1410		3	2		1																	
9	G06L		GW	G	7/31/24	1238		3	2		1																	
10	G07L 7/31/24 dup		GW	G	7/31/24	1325		3	2		1																	
11	G08L		GW	G	7/31/24	1419		3	2		1																	
12	G09L		GW	G	7/31/24	1507		3	2		1																	
13	G09L Dup		GW	G	7/31/24	1527		3	2		1																	
14																												
15																												
16																												

pH Temp: 13 Conductivity Factor (Reg O): 1

Observed Temp (Reg O): 35 Corrected Temp (Reg O): 36

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0	JBohannan	7/31/24	1635				
					7/31/24	1635	36

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jordan Bohannan

SIGNATURE of SAMPLER: JBohannan Courier

DATE Signed (MM/DD/YY): 7/31/2024

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company: ~~Vistra Corp Duck Creek~~	Report To: Brian Voelker	Attention: Brian Voelker	
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp	REGULATORY AGENCY
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A	NPDES GROUND WATER DRINKING WATER
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:	UST RCRA OTHER
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:	Site Location STATE: IL
Requested Due Date/TAT: 10 day	Project Number: 2285	Profile #:	HH00175 VS

ITEM #	Section D: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
									Requested Analysis Filtered (Y/N)																						
1	Field Blank	DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS	WT	G	8/1/24	1340		12	X	X	X																			
2	X301		WT	G	8/1/24	1359		3	X		X																			
3	G64S		WT	G	8/1/24	1312		4	X		X																			
4	G65S		WT	G	8/1/24	1128		3	X		X																			
5	G02S		WT	G	8/1/24	1030		4	X		X																			
6	G56L		GW	G	8/1/24	1312		3	X		X																			
7	P60		GW	G	8/1/24	1219		4	X		X																			
8	G65L		GW	G	8/1/24	1354		3	X		X																			
9	G71L		GW	G	8/1/24	0950		3	X		X																			
10	G72L		GW	G	8/1/24	1130		3	X		X																			
11	R72S		GW	G	8/1/24	1036		3	X		X																			
12	R13L		GW	G	8/1/24	0926		1			X																			
13	G57L		GW	G	8/1/24	1214		3	X		X																			
14	G58L		GW	G	8/1/24	1188		3	X		X																			
15	G59L + Dup gs 8/1/24		GW	G	8/1/24	1041		6	X		X																			
16	G62L		GW	G	8/1/24	1329		3	X		X																			

IR Gun # 141 Correction Factor (Deg C) +0.0

Observed Temp (Deg C) 4.3 Corrected Temp (Deg C) 4.3

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q2 Rev 0		8/1/24	1506				
					8/1/24	1506	

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Hunter Henderson	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 08/01/24				

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

December 08, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HJ03204

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
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Peoria, IL 61615
(800)752-6651

Work Order HJ03498

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HJ03764

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HJ04300

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HJ04540

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order HJ04816

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HJ03204-05
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 10/15/24 15:45
Received: 10/15/24 16:57
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	14	mg/L	Q4	10/22/24 17:45	5	5.0	10/22/24 17:45	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/22/24 17:28	1	0.250	10/22/24 17:28	JSM	EPA 300.0 REV 2.1
Sulfate	130	mg/L	Q4	10/22/24 18:02	25	25	10/22/24 18:02	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.8	Feet		10/15/24 15:45	1		10/15/24 15:45	FIELD	Field*
Dissolved oxygen, Field	0.51	mg/L		10/15/24 15:45	1		10/15/24 15:45	FIELD	Field*
Oxidation Reduction Potential	-26.2	mV		10/15/24 15:45	1	-500	10/15/24 15:45	FIELD	Field*
pH, Field Measured	6.74	pH Units		10/15/24 15:45	1		10/15/24 15:45	FIELD	Field*
Specific Conductance, Field Measured	1239	umhos/cm		10/15/24 15:45	1		10/15/24 15:45	FIELD	Field*
Temperature, Field Measured	13.2	°C		10/15/24 15:45	1		10/15/24 15:45	FIELD	Field*
Turbidity, Field Measured	150	NTU		10/15/24 15:45	1	0.00	10/15/24 15:45	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	540	mg/L		10/24/24 09:27	1	10	10/24/24 09:27	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/24/24 09:27	1	10	10/24/24 09:27	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	720	mg/L		10/22/24 10:54	1	26	10/22/24 15:56	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/17/24 07:55	5	3.0	10/25/24 16:57	TJJ	EPA 6020A
Arsenic	1.2	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Barium	45	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Boron	53	ug/L		10/17/24 07:55	5	10	10/28/24 14:02	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Calcium	160	mg/L		10/17/24 07:55	5	0.20	10/25/24 16:57	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/17/24 07:55	5	4.0	10/25/24 16:57	TJJ	EPA 6020A
Cobalt	6.2	ug/L		10/17/24 07:55	5	2.0	10/25/24 16:57	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Magnesium	79	mg/L		10/17/24 07:55	5	0.10	10/25/24 16:57	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/17/24 07:55	5	0.20	10/25/24 16:57	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Potassium	0.45	mg/L		10/17/24 07:55	5	0.10	10/25/24 16:57	TJJ	EPA 6020A

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HJ03204-05
Name: OM04S
Matrix: Ground Water - Grab

Sampled: 10/15/24 15:45
Received: 10/15/24 16:57
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Sodium	15	mg/L		10/17/24 07:55	5	0.10	10/25/24 16:57	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/17/24 07:55	5	1.0	10/25/24 16:57	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/17/24 07:55	1	0.020	10/17/24 10:31	BRS	EPA 6010B

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Peoria, IL 61615
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ANALYTICAL RESULTS

Sample: HJ03498-04
Name: OM16
Matrix: Ground Water - Grab

Sampled: 10/16/24 10:54
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	7.1	mg/L		10/23/24 14:02	1	1.0	10/23/24 14:02	JSM	EPA 300.0 REV 2.1
Sulfate	2100	mg/L		10/23/24 14:36	500	500	10/23/24 14:36	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	27.88	Feet		10/16/24 10:54	1		10/16/24 10:54	FIELD	Field*
Dissolved oxygen, Field	0.71	mg/L		10/16/24 10:54	1		10/16/24 10:54	FIELD	Field*
Oxidation Reduction Potential	99.3	mV		10/16/24 10:54	1	-500	10/16/24 10:54	FIELD	Field*
pH, Field Measured	6.27	pH Units		10/16/24 10:54	1		10/16/24 10:54	FIELD	Field*
Specific Conductance, Field Measured	4025	umhos/cm		10/16/24 10:54	1		10/16/24 10:54	FIELD	Field*
Temperature, Field Measured	11.8	°C		10/16/24 10:54	1		10/16/24 10:54	FIELD	Field*
Turbidity, Field Measured	31.6	NTU		10/16/24 10:54	1	0.00	10/16/24 10:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	780	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/25/24 16:14	1	0.250	10/25/24 16:14	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4000	mg/L		10/22/24 10:57	1	26	10/22/24 16:51	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/21/24 14:33	5	3.0	10/23/24 16:18	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Barium	16	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Boron	51	ug/L		10/21/24 14:33	5	10	10/23/24 16:18	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Calcium	620	mg/L		10/21/24 14:33	20	0.80	10/25/24 10:22	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/21/24 14:33	5	4.0	10/23/24 16:18	TJJ	EPA 6020A
Cobalt	3.4	ug/L		10/21/24 14:33	5	2.0	10/23/24 16:18	TJJ	EPA 6020A
Lead	1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Magnesium	370	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:18	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/21/24 14:33	5	0.20	10/28/24 09:55	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Potassium	1.4	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:18	TJJ	EPA 6020A

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: HJ03498-04
Name: OM16
Matrix: Ground Water - Grab

Sampled: 10/16/24 10:54
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Sodium	26	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:18	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:18	TJJ	EPA 6020A
Lithium	0.030	mg/L		10/21/24 14:33	1	0.020	10/22/24 10:07	BRS	EPA 6010B

Pace Analytical Services, LLC
2231 W. Altorfer Drive
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ANALYTICAL RESULTS

Sample: HJ03498-06
Name: OM21
Matrix: Ground Water - Grab

Sampled: 10/16/24 13:15
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	240	mg/L		10/23/24 16:18	50	50	10/23/24 16:18	JSM	EPA 300.0 REV 2.1
Sulfate	990	mg/L		10/23/24 16:35	250	250	10/23/24 16:35	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.4	Feet		10/16/24 13:15	1		10/16/24 13:15	FIELD	Field*
Dissolved oxygen, Field	0.46	mg/L		10/16/24 13:15	1		10/16/24 13:15	FIELD	Field*
Oxidation Reduction Potential	-76.8	mV		10/16/24 13:15	1	-500	10/16/24 13:15	FIELD	Field*
pH, Field Measured	6.84	pH Units		10/16/24 13:15	1		10/16/24 13:15	FIELD	Field*
Specific Conductance, Field Measured	3426	umhos/cm		10/16/24 13:15	1		10/16/24 13:15	FIELD	Field*
Temperature, Field Measured	13.3	°C		10/16/24 13:15	1		10/16/24 13:15	FIELD	Field*
Turbidity, Field Measured	67.0	NTU		10/16/24 13:15	1	0.00	10/16/24 13:15	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	640	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/25/24 16:25	1	0.250	10/25/24 16:25	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2600	mg/L		10/22/24 10:57	1	26	10/22/24 16:51	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	3.8	ug/L		10/21/24 14:33	5	3.0	10/23/24 16:37	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Barium	22	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Boron	8800	ug/L		10/21/24 14:33	20	40	10/25/24 10:25	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Calcium	320	mg/L		10/21/24 14:33	20	0.80	10/25/24 10:25	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/21/24 14:33	5	4.0	10/23/24 16:37	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/21/24 14:33	5	2.0	10/23/24 16:37	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Magnesium	160	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:37	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/21/24 14:33	5	0.20	10/23/24 16:37	TJJ	EPA 6020A
Molybdenum	2.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Potassium	12	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:37	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03498-06
Name: OM21
Matrix: Ground Water - Grab

Sampled: 10/16/24 13:15
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Sodium	320	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:37	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:37	TJJ	EPA 6020A
Lithium	0.040	mg/L		10/21/24 14:33	1	0.020	10/22/24 10:10	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03498-07
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 10/16/24 14:20
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	350	mg/L		10/23/24 17:10	250	250	10/23/24 17:10	JSM	EPA 300.0 REV 2.1
Sulfate	750	mg/L		10/23/24 17:10	250	250	10/23/24 17:10	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	5.89	Feet		10/16/24 14:20	1		10/16/24 14:20	FIELD	Field*
Dissolved oxygen, Field	0.16	mg/L		10/16/24 14:20	1		10/16/24 14:20	FIELD	Field*
Oxidation Reduction Potential	-39.1	mV		10/16/24 14:20	1	-500	10/16/24 14:20	FIELD	Field*
pH, Field Measured	6.57	pH Units		10/16/24 14:20	1		10/16/24 14:20	FIELD	Field*
Specific Conductance, Field Measured	3229	umhos/cm		10/16/24 14:20	1		10/16/24 14:20	FIELD	Field*
Temperature, Field Measured	15.7	°C		10/16/24 14:20	1		10/16/24 14:20	FIELD	Field*
Turbidity, Field Measured	40.3	NTU		10/16/24 14:20	1	0.00	10/16/24 14:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/25/24 16:27	1	0.250	10/25/24 16:27	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2300	mg/L		10/22/24 10:57	1	26	10/22/24 16:51	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/21/24 14:33	5	3.0	10/23/24 16:41	TJJ	EPA 6020A
Arsenic	3.9	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Barium	18	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Boron	23000	ug/L		10/21/24 14:33	50	100	10/25/24 11:01	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Calcium	410	mg/L		10/21/24 14:33	50	2.0	10/25/24 11:01	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/21/24 14:33	5	4.0	10/23/24 16:41	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/21/24 14:33	5	2.0	10/23/24 16:41	TJJ	EPA 6020A
Lead	2.7	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Magnesium	140	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:41	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/21/24 14:33	5	0.20	10/23/24 16:41	TJJ	EPA 6020A
Molybdenum	4.9	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Potassium	5.9	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:41	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03498-07
Name: OM24D
Matrix: Ground Water - Grab

Sampled: 10/16/24 14:20
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Sodium	150	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:41	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:41	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/21/24 14:33	1	0.020	10/22/24 10:11	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03498-08
Name: OR02
Matrix: Ground Water - Grab

Sampled: 10/16/24 15:13
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	180	mg/L		10/23/24 18:01	50	50	10/23/24 18:01	JSM	EPA 300.0 REV 2.1
Sulfate	210	mg/L		10/23/24 18:01	50	50	10/23/24 18:01	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	8.33	Feet		10/16/24 15:13	1		10/16/24 15:13	FIELD	Field*
Dissolved oxygen, Field	0.33	mg/L		10/16/24 15:13	1		10/16/24 15:13	FIELD	Field*
Oxidation Reduction Potential	-23.8	mV		10/16/24 15:13	1	-500	10/16/24 15:13	FIELD	Field*
pH, Field Measured	6.61	pH Units		10/16/24 15:13	1		10/16/24 15:13	FIELD	Field*
Specific Conductance, Field Measured	1935	umhos/cm		10/16/24 15:13	1		10/16/24 15:13	FIELD	Field*
Temperature, Field Measured	15.0	°C		10/16/24 15:13	1		10/16/24 15:13	FIELD	Field*
Turbidity, Field Measured	98.8	NTU		10/16/24 15:13	1	0.00	10/16/24 15:13	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/25/24 16:28	1	0.250	10/25/24 16:28	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		10/22/24 10:57	1	26	10/22/24 16:51	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/21/24 14:33	5	3.0	10/23/24 16:44	TJJ	EPA 6020A
Arsenic	2.7	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Barium	33	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Boron	5300	ug/L		10/21/24 14:33	20	40	10/25/24 11:04	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Calcium	210	mg/L		10/21/24 14:33	20	0.80	10/25/24 11:04	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/21/24 14:33	5	4.0	10/23/24 16:44	TJJ	EPA 6020A
Cobalt	2.8	ug/L		10/21/24 14:33	5	2.0	10/23/24 16:44	TJJ	EPA 6020A
Lead	2.9	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Magnesium	83	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:44	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/21/24 14:33	5	0.20	10/23/24 16:44	TJJ	EPA 6020A
Molybdenum	2.4	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Potassium	2.1	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:44	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03498-08
Name: OR02
Matrix: Ground Water - Grab

Sampled: 10/16/24 15:13
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Sodium	110	mg/L		10/21/24 14:33	5	0.10	10/23/24 16:44	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/21/24 14:33	5	1.0	10/23/24 16:44	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/21/24 14:33	1	0.020	10/22/24 10:12	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03498-16
Name: OM17
Matrix: Ground Water - Grab

Sampled: 10/16/24 12:25
Received: 10/16/24 16:40
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	14.97	Feet		10/16/24 12:25	1		10/16/24 12:25	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		10/16/24 12:25	1		10/16/24 12:25	FIELD	Field*
Oxidation Reduction Potential	-73.8	mV		10/16/24 12:25	1	-500	10/16/24 12:25	FIELD	Field*
pH, Field Measured	6.54	pH Units		10/16/24 12:25	1		10/16/24 12:25	FIELD	Field*
Specific Conductance, Field Measured	854.9	umhos/cm		10/16/24 12:25	1		10/16/24 12:25	FIELD	Field*
Temperature, Field Measured	14.5	°C		10/16/24 12:25	1		10/16/24 12:25	FIELD	Field*
Turbidity, Field Measured	13.0	NTU		10/16/24 12:25	1	0.00	10/16/24 12:25	FIELD	Field*
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/29/24 08:24	5	3.0	10/29/24 15:11	TJJ	EPA 6020A
Arsenic	2.1	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Barium	56	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Boron	180	ug/L		10/29/24 08:24	5	10	10/30/24 10:20	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Calcium	130	mg/L		10/29/24 08:24	5	0.20	10/29/24 15:11	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/29/24 08:24	5	4.0	10/29/24 15:11	TJJ	EPA 6020A
Cobalt	2.4	ug/L		10/29/24 08:24	5	2.0	10/29/24 15:11	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Magnesium	41	mg/L		10/29/24 08:24	5	0.10	10/29/24 15:11	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/29/24 08:24	5	0.20	10/29/24 15:11	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Potassium	4.7	mg/L		10/29/24 08:24	5	0.10	10/29/24 15:11	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Sodium	3.0	mg/L		10/29/24 08:24	5	0.10	10/29/24 15:11	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/29/24 08:24	5	1.0	10/29/24 15:11	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/29/24 08:24	1	0.020	10/30/24 11:31	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03764-10
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 10/17/24 14:20
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	640	mg/L	Q4	10/24/24 21:42	100	100	10/24/24 21:42	JSM	EPA 300.0 REV 2.1
Sulfate	730	mg/L	Q4	10/24/24 21:42	100	100	10/24/24 21:42	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	58.71	Feet		10/17/24 14:20	1		10/17/24 14:20	FIELD	Field*
Dissolved oxygen, Field	1.1	mg/L		10/17/24 14:20	1		10/17/24 14:20	FIELD	Field*
Oxidation Reduction Potential	-17.2	mV		10/17/24 14:20	1	-500	10/17/24 14:20	FIELD	Field*
pH, Field Measured	6.48	pH Units		10/17/24 14:20	1		10/17/24 14:20	FIELD	Field*
Specific Conductance, Field Measured	3768	umhos/cm		10/17/24 14:20	1		10/17/24 14:20	FIELD	Field*
Temperature, Field Measured	16.3	°C		10/17/24 14:20	1		10/17/24 14:20	FIELD	Field*
Turbidity, Field Measured	280	NTU		10/17/24 14:20	1	0.00	10/17/24 14:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	490	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 13:27	1	0.250	10/30/24 13:27	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2600	mg/L		10/24/24 10:53	1	51	10/24/24 16:12	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/28/24 09:05	5	3.0	10/28/24 16:34	TJJ	EPA 6020A
Arsenic	1.1	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Barium	31	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Boron	30000	ug/L		10/28/24 09:05	100	200	10/29/24 10:42	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Calcium	380	mg/L		10/28/24 09:05	5	0.20	10/28/24 16:34	TJJ	EPA 6020A
Chromium	10	ug/L		10/28/24 09:05	5	4.0	10/28/24 16:34	TJJ	EPA 6020A
Cobalt	6.2	ug/L		10/28/24 09:05	5	2.0	10/28/24 16:34	TJJ	EPA 6020A
Lead	1.1	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Magnesium	220	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:34	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/28/24 09:05	5	0.20	10/28/24 16:34	TJJ	EPA 6020A
Molybdenum	2.3	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Potassium	10	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:34	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-10
Name: OM25S
Matrix: Ground Water - Grab

Sampled: 10/17/24 14:20
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Sodium	130	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:34	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:34	TJJ	EPA 6020A
Lithium	0.056	mg/L		10/28/24 09:05	1	0.020	10/30/24 11:18	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03764-11
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 10/17/24 12:28
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1200	mg/L		10/24/24 23:25	250	250	10/24/24 23:25	JSM	EPA 300.0 REV 2.1
Sulfate	570	mg/L		10/24/24 23:25	250	250	10/24/24 23:25	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	45.36	Feet		10/17/24 12:28	1		10/17/24 12:28	FIELD	Field*
Dissolved oxygen, Field	0.61	mg/L		10/17/24 12:28	1		10/17/24 12:28	FIELD	Field*
Oxidation Reduction Potential	-10.2	mV		10/17/24 12:28	1	-500	10/17/24 12:28	FIELD	Field*
pH, Field Measured	6.46	pH Units		10/17/24 12:28	1		10/17/24 12:28	FIELD	Field*
Specific Conductance, Field Measured	5249	umhos/cm		10/17/24 12:28	1		10/17/24 12:28	FIELD	Field*
Temperature, Field Measured	14.9	°C		10/17/24 12:28	1		10/17/24 12:28	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/17/24 12:28	1	0.00	10/17/24 12:28	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	690	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 13:28	1	0.250	10/30/24 13:28	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3600	mg/L		10/23/24 10:25	1	26	10/23/24 16:20	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/28/24 09:05	5	3.0	10/28/24 16:37	TJJ	EPA 6020A
Arsenic	8.5	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Barium	210	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Beryllium	1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Boron	57000	ug/L		10/28/24 09:05	100	200	10/29/24 10:46	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Calcium	590	mg/L		10/28/24 09:05	100	4.0	10/29/24 10:46	TJJ	EPA 6020A
Chromium	42	ug/L		10/28/24 09:05	5	4.0	10/28/24 16:37	TJJ	EPA 6020A
Cobalt	20	ug/L		10/28/24 09:05	5	2.0	10/28/24 16:37	TJJ	EPA 6020A
Lead	14	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Magnesium	290	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:37	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/28/24 09:05	5	0.20	10/28/24 16:37	TJJ	EPA 6020A
Molybdenum	6.7	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Potassium	16	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:37	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-11
Name: OR03D
Matrix: Ground Water - Grab

Sampled: 10/17/24 12:28
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.7	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Sodium	180	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:37	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:37	TJJ	EPA 6020A
Lithium	0.076	mg/L		10/28/24 09:05	1	0.020	10/30/24 11:19	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03764-12
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 10/17/24 11:16
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1300	mg/L		10/24/24 23:59	250	250	10/24/24 23:59	JSM	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		10/24/24 23:59	250	250	10/24/24 23:59	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.99	Feet		10/17/24 11:16	1		10/17/24 11:16	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		10/17/24 11:16	1		10/17/24 11:16	FIELD	Field*
Oxidation Reduction Potential	-30.5	mV		10/17/24 11:16	1	-500	10/17/24 11:16	FIELD	Field*
pH, Field Measured	6.32	pH Units		10/17/24 11:16	1		10/17/24 11:16	FIELD	Field*
Specific Conductance, Field Measured	6198	umhos/cm		10/17/24 11:16	1		10/17/24 11:16	FIELD	Field*
Temperature, Field Measured	13.9	°C		10/17/24 11:16	1		10/17/24 11:16	FIELD	Field*
Turbidity, Field Measured	435	NTU		10/17/24 11:16	1	0.00	10/17/24 11:16	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 13:30	1	0.250	10/30/24 13:30	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	4400	mg/L		10/24/24 10:53	1	51	10/24/24 16:12	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/28/24 09:05	5	3.0	10/28/24 16:53	TJJ	EPA 6020A
Arsenic	5.2	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Barium	76	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Boron	98000	ug/L		10/28/24 09:05	100	200	10/29/24 11:38	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Calcium	730	mg/L		10/28/24 09:05	100	4.0	10/29/24 11:38	TJJ	EPA 6020A
Chromium	15	ug/L		10/28/24 09:05	5	4.0	10/28/24 16:53	TJJ	EPA 6020A
Cobalt	6.1	ug/L		10/28/24 09:05	5	2.0	10/28/24 16:53	TJJ	EPA 6020A
Lead	6.3	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Magnesium	280	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:53	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/28/24 09:05	5	0.20	10/28/24 16:53	TJJ	EPA 6020A
Molybdenum	8.1	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Potassium	15	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:53	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-12
Name: OR04D
Matrix: Ground Water - Grab

Sampled: 10/17/24 11:16
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Sodium	230	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:53	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:53	TJJ	EPA 6020A
Lithium	0.073	mg/L		10/28/24 09:05	1	0.020	10/30/24 11:21	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03764-13
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 10/17/24 13:25
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	27	mg/L		10/25/24 00:33	5	5.0	10/25/24 00:33	JSM	EPA 300.0 REV 2.1
Sulfate	370	mg/L		10/25/24 00:50	50	50	10/25/24 00:50	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	38.92	Feet		10/17/24 13:25	1		10/17/24 13:25	FIELD	Field*
Dissolved oxygen, Field	0.50	mg/L		10/17/24 13:25	1		10/17/24 13:25	FIELD	Field*
Oxidation Reduction Potential	-68.8	mV		10/17/24 13:25	1	-500	10/17/24 13:25	FIELD	Field*
pH, Field Measured	6.64	pH Units		10/17/24 13:25	1		10/17/24 13:25	FIELD	Field*
Specific Conductance, Field Measured	1797	umhos/cm		10/17/24 13:25	1		10/17/24 13:25	FIELD	Field*
Temperature, Field Measured	15.0	°C		10/17/24 13:25	1		10/17/24 13:25	FIELD	Field*
Turbidity, Field Measured	267	NTU		10/17/24 13:25	1	0.00	10/17/24 13:25	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	610	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 13:31	1	0.250	10/30/24 13:31	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		10/23/24 10:25	1	26	10/23/24 16:20	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/28/24 09:05	5	3.0	10/28/24 16:57	TJJ	EPA 6020A
Arsenic	2.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Barium	44	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Boron	1900	ug/L		10/28/24 09:05	5	10	10/29/24 09:50	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Calcium	170	mg/L		10/28/24 09:05	5	0.20	10/28/24 16:57	TJJ	EPA 6020A
Chromium	5.8	ug/L		10/28/24 09:05	5	4.0	10/28/24 16:57	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/28/24 09:05	5	2.0	10/28/24 16:57	TJJ	EPA 6020A
Lead	1.6	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Magnesium	100	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:57	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/28/24 09:05	5	0.20	10/28/24 16:57	TJJ	EPA 6020A
Molybdenum	2.5	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Potassium	6.6	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:57	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-13
Name: OM23D
Matrix: Ground Water - Grab

Sampled: 10/17/24 13:25
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Sodium	120	mg/L		10/28/24 09:05	5	0.10	10/28/24 16:57	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 16:57	TJJ	EPA 6020A
Lithium	0.037	mg/L		10/28/24 09:05	1	0.020	10/30/24 11:22	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ03764-15
Name: OM12
Matrix: Ground Water - Grab

Sampled: 10/17/24 13:07
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	3.4	mg/L		10/25/24 01:07	1	1.0	10/25/24 01:07	JSM	EPA 300.0 REV 2.1
Sulfate	390	mg/L		10/25/24 01:41	100	100	10/25/24 01:41	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	17.33	Feet		10/17/24 13:07	1		10/17/24 13:07	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		10/17/24 13:07	1		10/17/24 13:07	FIELD	Field*
Oxidation Reduction Potential	-85.0	mV		10/17/24 13:07	1	-500	10/17/24 13:07	FIELD	Field*
pH, Field Measured	6.55	pH Units		10/17/24 13:07	1		10/17/24 13:07	FIELD	Field*
Specific Conductance, Field Measured	2250	umhos/cm		10/17/24 13:07	1		10/17/24 13:07	FIELD	Field*
Temperature, Field Measured	16.6	°C		10/17/24 13:07	1		10/17/24 13:07	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/17/24 13:07	1	0.00	10/17/24 13:07	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	810	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 13:33	1	0.250	10/30/24 13:33	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1400	mg/L		10/23/24 10:25	1	26	10/23/24 16:20	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/28/24 09:05	5	3.0	11/04/24 16:02	TJJ	EPA 6020A
Arsenic	22	ug/L		10/28/24 09:05	5	1.0	11/04/24 16:02	TJJ	EPA 6020A
Barium	210	ug/L		10/28/24 09:05	5	1.0	11/04/24 16:02	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/28/24 09:05	5	1.0	11/05/24 13:05	TJJ	EPA 6020A
Boron	48	ug/L		10/28/24 09:05	5	10	11/04/24 16:02	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/28/24 09:05	5	1.0	11/04/24 16:02	TJJ	EPA 6020A
Calcium	290	mg/L		10/28/24 09:05	5	0.20	11/04/24 16:02	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/28/24 09:05	5	4.0	11/04/24 16:02	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/28/24 09:05	5	2.0	11/04/24 16:02	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/28/24 09:05	5	1.0	10/28/24 17:00	TJJ	EPA 6020A
Magnesium	120	mg/L		10/28/24 09:05	5	0.10	11/04/24 16:02	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/28/24 09:05	5	0.20	11/04/24 16:02	TJJ	EPA 6020A
Molybdenum	2.5	ug/L		10/28/24 09:05	5	1.0	11/04/24 16:02	TJJ	EPA 6020A
Potassium	1.2	mg/L		10/28/24 09:05	5	0.10	11/04/24 16:02	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ03764-15
Name: OM12
Matrix: Ground Water - Grab

Sampled: 10/17/24 13:07
Received: 10/17/24 16:08
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/28/24 09:05	5	1.0	11/04/24 16:02	TJJ	EPA 6020A
Sodium	15	mg/L		10/28/24 09:05	5	0.10	11/04/24 16:02	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/28/24 09:05	5	1.0	11/04/24 16:02	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/28/24 09:05	1	0.020	11/05/24 10:41	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04300-01
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 10/22/24 14:40
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	270	mg/L	Q4	10/28/24 15:01	100	100	10/28/24 15:01	JSM	EPA 300.0 REV 2.1
Sulfate	690	mg/L	Q4	10/28/24 15:01	100	100	10/28/24 15:01	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	11.91	Feet		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Oxidation Reduction Potential	-64.0	mV		10/22/24 14:40	1	-500	10/22/24 14:40	FIELD	Field*
pH, Field Measured	7.52	pH Units		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Specific Conductance, Field Measured	2100	umhos/cm		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Temperature, Field Measured	20.5	°C		10/22/24 14:40	1		10/22/24 14:40	FIELD	Field*
Turbidity, Field Measured	26.8	NTU		10/22/24 14:40	1	0.00	10/22/24 14:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	440	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		10/28/24 14:33	1	10	10/28/24 14:33	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		10/30/24 14:27	1	0.250	10/30/24 14:27	ANK	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	2000	mg/L		10/28/24 09:31	1	26	10/28/24 15:05	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/30/24 08:55	5	3.0	10/31/24 14:58	TJJ	EPA 6020A
Arsenic	2.2	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Barium	21	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Boron	17000	ug/L		10/30/24 08:55	50	100	11/01/24 13:11	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Calcium	390	mg/L	Q4	10/30/24 08:55	5	0.20	10/31/24 14:58	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/30/24 08:55	5	4.0	10/31/24 14:58	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/30/24 08:55	5	2.0	10/31/24 14:58	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Magnesium	120	mg/L		10/30/24 08:55	5	0.10	10/31/24 14:58	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/30/24 08:55	5	0.20	11/01/24 18:16	TJJ	EPA 6020A
Molybdenum	4.7	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Potassium	4.4	mg/L		10/30/24 08:55	5	0.10	10/31/24 14:58	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04300-01
Name: OR14D
Matrix: Ground Water - Grab

Sampled: 10/22/24 14:40
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/30/24 08:55	5	1.0	11/01/24 18:16	TJJ	EPA 6020A
Sodium	46	mg/L		10/30/24 08:55	5	0.10	10/31/24 14:58	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 14:58	TJJ	EPA 6020A
Lithium	0.020	mg/L		10/30/24 08:55	1	0.020	10/30/24 11:34	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04540-04
Name: OR11
Matrix: Ground Water - Grab

Sampled: 10/23/24 13:48
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	89	mg/L		10/30/24 17:11	25	25	10/30/24 17:11	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/30/24 16:54	1	0.250	10/30/24 16:54	JSM	EPA 300.0 REV 2.1
Sulfate	170	mg/L		10/30/24 17:11	25	25	10/30/24 17:11	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	32.29	Feet		10/23/24 13:48	1		10/23/24 13:48	FIELD	Field*
Dissolved oxygen, Field	2.0	mg/L		10/23/24 13:48	1		10/23/24 13:48	FIELD	Field*
Oxidation Reduction Potential	-52.9	mV		10/23/24 13:48	1	-500	10/23/24 13:48	FIELD	Field*
pH, Field Measured	7.18	pH Units		10/23/24 13:48	1		10/23/24 13:48	FIELD	Field*
Specific Conductance, Field Measured	1334	umhos/cm		10/23/24 13:48	1		10/23/24 13:48	FIELD	Field*
Temperature, Field Measured	13.5	°C		10/23/24 13:48	1		10/23/24 13:48	FIELD	Field*
Turbidity, Field Measured	223	NTU		10/23/24 13:48	1	0.00	10/23/24 13:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	840	mg/L		10/30/24 09:45	1	26	10/30/24 15:45	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/30/24 08:55	5	3.0	10/31/24 15:32	TJJ	EPA 6020A
Arsenic	18	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Barium	120	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Boron	11000	ug/L		10/30/24 08:55	50	100	11/01/24 13:23	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Calcium	160	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:32	TJJ	EPA 6020A
Chromium	12	ug/L		10/30/24 08:55	5	4.0	10/31/24 15:32	TJJ	EPA 6020A
Cobalt	6.3	ug/L		10/30/24 08:55	5	2.0	10/31/24 15:32	TJJ	EPA 6020A
Lead	12	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Magnesium	70	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:32	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/30/24 08:55	5	0.20	11/04/24 15:05	TJJ	EPA 6020A
Molybdenum	14	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Potassium	5.3	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:32	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04540-04
Name: OR11
Matrix: Ground Water - Grab

Sampled: 10/23/24 13:48
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/30/24 08:55	5	1.0	11/01/24 18:46	TJJ	EPA 6020A
Sodium	38	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:32	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:32	TJJ	EPA 6020A
Lithium	0.028	mg/L		10/30/24 08:55	1	0.020	10/30/24 11:45	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04540-05
Name: OR20
Matrix: Ground Water - Grab

Sampled: 10/23/24 15:08
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	310	mg/L		10/30/24 17:45	100	100	10/30/24 17:45	JSM	EPA 300.0 REV 2.1
Sulfate	350	mg/L		10/30/24 17:45	100	100	10/30/24 17:45	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.48	Feet		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Oxidation Reduction Potential	-20.1	mV		10/23/24 15:08	1	-500	10/23/24 15:08	FIELD	Field*
pH, Field Measured	7.01	pH Units		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Specific Conductance, Field Measured	2558	umhos/cm		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Temperature, Field Measured	14.5	°C		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Turbidity, Field Measured	23.1	NTU		10/23/24 15:08	1	0.00	10/23/24 15:08	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	490	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	0.427	mg/L		11/04/24 15:41	1	0.250	11/04/24 15:41	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1700	mg/L		10/29/24 09:20	1	26	10/29/24 15:03	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/30/24 08:55	5	3.0	10/31/24 15:36	TJJ	EPA 6020A
Arsenic	3.4	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Barium	19	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Boron	35000	ug/L		10/30/24 08:55	100	200	11/01/24 13:27	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Calcium	240	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:36	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/30/24 08:55	5	4.0	10/31/24 15:36	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/30/24 08:55	5	2.0	10/31/24 15:36	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Magnesium	94	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:36	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/30/24 08:55	5	0.20	11/01/24 18:50	TJJ	EPA 6020A
Molybdenum	40	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Potassium	7.9	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:36	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04540-05
Name: OR20
Matrix: Ground Water - Grab

Sampled: 10/23/24 15:08
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/30/24 08:55	5	1.0	11/01/24 18:50	TJJ	EPA 6020A
Sodium	170	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:36	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:36	TJJ	EPA 6020A
Lithium	0.042	mg/L		10/30/24 08:55	1	0.020	10/30/24 11:46	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04540-06
Name: OR20 DUP
Matrix: Ground Water - Grab

Sampled: 10/23/24 15:08
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	340	mg/L		10/30/24 18:53	100	100	10/30/24 18:53	JSM	EPA 300.0 REV 2.1
Sulfate	390	mg/L		10/30/24 18:53	100	100	10/30/24 18:53	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	22.48	Feet		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Dissolved oxygen, Field	1.0	mg/L		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Oxidation Reduction Potential	-20.1	mV		10/23/24 15:08	1	-500	10/23/24 15:08	FIELD	Field*
pH, Field Measured	7.01	pH Units		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Specific Conductance, Field Measured	2558	umhos/cm		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Temperature, Field Measured	14.5	°C		10/23/24 15:08	1		10/23/24 15:08	FIELD	Field*
Turbidity, Field Measured	23.1	NTU		10/23/24 15:08	1	0.00	10/23/24 15:08	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	510	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	0.426	mg/L		11/04/24 15:43	1	0.250	11/04/24 15:43	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1600	mg/L		10/29/24 09:20	1	26	10/29/24 15:03	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/30/24 08:55	5	3.0	10/31/24 15:40	TJJ	EPA 6020A
Arsenic	3.2	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Barium	20	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Boron	35000	ug/L		10/30/24 08:55	100	200	11/01/24 13:30	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Calcium	240	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:40	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/30/24 08:55	5	4.0	10/31/24 15:40	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/30/24 08:55	5	2.0	10/31/24 15:40	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Magnesium	93	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:40	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/30/24 08:55	5	0.20	11/01/24 18:53	TJJ	EPA 6020A
Molybdenum	40	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Potassium	7.8	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:40	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04540-06
Name: OR20 DUP
Matrix: Ground Water - Grab

Sampled: 10/23/24 15:08
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/30/24 08:55	5	1.0	11/01/24 18:53	TJJ	EPA 6020A
Sodium	170	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:40	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:40	TJJ	EPA 6020A
Lithium	0.041	mg/L		10/30/24 08:55	1	0.020	10/30/24 11:47	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04540-12
Name: BA06
Matrix: Ground Water - Grab

Sampled: 10/23/24 14:59
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	600	mg/L		10/31/24 02:00	100	100	10/31/24 02:00	JSM	EPA 300.0 REV 2.1
Sulfate	390	mg/L		10/31/24 02:00	100	100	10/31/24 02:00	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.11	Feet		10/23/24 14:59	1		10/23/24 14:59	FIELD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/23/24 14:59	1		10/23/24 14:59	FIELD	Field*
Oxidation Reduction Potential	10.0	mV		10/23/24 14:59	1	-500	10/23/24 14:59	FIELD	Field*
pH, Field Measured	7.26	pH Units		10/23/24 14:59	1		10/23/24 14:59	FIELD	Field*
Specific Conductance, Field Measured	2750	umhos/cm		10/23/24 14:59	1		10/23/24 14:59	FIELD	Field*
Temperature, Field Measured	15.2	°C		10/23/24 14:59	1		10/23/24 14:59	FIELD	Field*
Turbidity, Field Measured	24.9	NTU		10/23/24 14:59	1	0.00	10/23/24 14:59	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	440	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/04/24 16:29	1	0.250	11/04/24 16:29	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1900	mg/L		10/29/24 09:20	1	26	10/29/24 15:03	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/30/24 08:55	5	3.0	10/31/24 15:59	TJJ	EPA 6020A
Arsenic	1.5	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Barium	89	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Boron	16000	ug/L		10/30/24 08:55	50	100	11/01/24 14:05	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Calcium	310	mg/L		10/30/24 08:55	5	0.20	10/31/24 15:59	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/30/24 08:55	5	4.0	10/31/24 15:59	TJJ	EPA 6020A
Cobalt	3.3	ug/L		10/30/24 08:55	5	2.0	10/31/24 15:59	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Magnesium	200	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:59	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/30/24 08:55	5	0.20	11/01/24 18:57	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Potassium	0.35	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:59	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04540-12
Name: BA06
Matrix: Ground Water - Grab

Sampled: 10/23/24 14:59
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/30/24 08:55	5	1.0	11/01/24 18:57	TJJ	EPA 6020A
Sodium	16	mg/L		10/30/24 08:55	5	0.10	10/31/24 15:59	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/30/24 08:55	5	1.0	10/31/24 15:59	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/30/24 08:55	1	0.020	10/30/24 11:53	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-11
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:59
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	44	mg/L		10/31/24 21:37	10	10	10/31/24 21:37	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/31/24 21:20	1	0.250	10/31/24 21:20	JSM	EPA 300.0 REV 2.1
Sulfate	280	mg/L		10/31/24 21:55	50	50	10/31/24 21:55	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.79	Feet		10/24/24 12:59	1		10/24/24 12:59	KD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/24/24 12:59	1		10/24/24 12:59	KD	Field*
Oxidation Reduction Potential	-27.0	mV		10/24/24 12:59	1	-500	10/24/24 12:59	KD	Field*
pH, Field Measured	6.25	pH Units		10/24/24 12:59	1		10/24/24 12:59	KD	Field*
Specific Conductance, Field Measured	1750	umhos/cm		10/24/24 12:59	1		10/24/24 12:59	KD	Field*
Temperature, Field Measured	14.7	°C		10/24/24 12:59	1		10/24/24 12:59	KD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/24/24 12:59	1	0.00	10/24/24 12:59	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	720	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 16:14	TJJ	EPA 6020A
Arsenic	4.4	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Barium	28	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Boron	2100	ug/L		10/31/24 07:50	5	10	11/04/24 10:56	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Calcium	110	mg/L		10/31/24 07:50	5	0.20	11/01/24 16:14	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 16:14	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/31/24 07:50	5	2.0	11/01/24 16:14	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Magnesium	60	mg/L		10/31/24 07:50	5	0.10	11/04/24 10:56	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 16:14	TJJ	EPA 6020A
Molybdenum	7.5	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Potassium	4.8	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:14	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-11
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:59
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Sodium	250	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:14	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:14	TJJ	EPA 6020A
Lithium	0.027	mg/L		10/31/24 07:50	1	0.020	11/05/24 09:54	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-12
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:30
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	39	mg/L		10/31/24 23:03	10	10	10/31/24 23:03	JSM	EPA 300.0 REV 2.1
Sulfate	720	mg/L		10/31/24 23:20	100	100	10/31/24 23:20	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.96	Feet		10/24/24 12:30	1		10/24/24 12:30	KD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/24/24 12:30	1		10/24/24 12:30	KD	Field*
Oxidation Reduction Potential	-28.0	mV		10/24/24 12:30	1	-500	10/24/24 12:30	KD	Field*
pH, Field Measured	6.26	pH Units		10/24/24 12:30	1		10/24/24 12:30	KD	Field*
Specific Conductance, Field Measured	1920	umhos/cm		10/24/24 12:30	1		10/24/24 12:30	KD	Field*
Temperature, Field Measured	16.0	°C		10/24/24 12:30	1		10/24/24 12:30	KD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/24/24 12:30	1	0.00	10/24/24 12:30	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	510	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/04/24 15:50	1	0.250	11/04/24 15:50	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1500	mg/L		10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 16:18	TJJ	EPA 6020A
Arsenic	9.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Barium	23	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Boron	3200	ug/L		10/31/24 07:50	5	10	11/04/24 11:19	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Calcium	280	mg/L		10/31/24 07:50	5	0.20	11/01/24 16:18	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 16:18	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/31/24 07:50	5	2.0	11/01/24 16:18	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Magnesium	120	mg/L		10/31/24 07:50	5	0.10	11/04/24 11:19	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 16:18	TJJ	EPA 6020A
Molybdenum	7.6	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Potassium	3.5	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:18	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-12
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:30
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Sodium	62	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:18	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:18	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/31/24 07:50	1	0.020	11/05/24 09:56	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-13
Name: OR19
Matrix: Ground Water - Grab

Sampled: 10/24/24 11:22
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	100	mg/L		10/31/24 23:54	100	100	10/31/24 23:54	JSM	EPA 300.0 REV 2.1
Sulfate	750	mg/L		10/31/24 23:54	100	100	10/31/24 23:54	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.31	Feet		10/24/24 11:22	1		10/24/24 11:22	KD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/24/24 11:22	1		10/24/24 11:22	KD	Field*
Oxidation Reduction Potential	-23.0	mV		10/24/24 11:22	1	-500	10/24/24 11:22	KD	Field*
pH, Field Measured	6.07	pH Units		10/24/24 11:22	1		10/24/24 11:22	KD	Field*
Specific Conductance, Field Measured	2190	umhos/cm		10/24/24 11:22	1		10/24/24 11:22	KD	Field*
Temperature, Field Measured	13.2	°C		10/24/24 11:22	1		10/24/24 11:22	KD	Field*
Turbidity, Field Measured	133	NTU		10/24/24 11:22	1	0.00	10/24/24 11:22	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	610	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	0.346	mg/L		11/04/24 15:52	1	0.250	11/04/24 15:52	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1800	mg/L		10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 17:07	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Barium	19	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Boron	12000	ug/L		10/31/24 07:50	50	100	11/05/24 10:54	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Calcium	280	mg/L		10/31/24 07:50	5	0.20	11/01/24 17:07	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 17:07	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/31/24 07:50	5	2.0	11/01/24 17:07	TJJ	EPA 6020A
Lead	1.2	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Magnesium	140	mg/L		10/31/24 07:50	50	1.0	11/05/24 10:54	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 17:07	TJJ	EPA 6020A
Molybdenum	3.6	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Potassium	4.8	mg/L		10/31/24 07:50	5	0.10	11/01/24 17:07	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-13
Name: OR19
Matrix: Ground Water - Grab

Sampled: 10/24/24 11:22
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Sodium	130	mg/L		10/31/24 07:50	5	0.10	11/01/24 17:07	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:07	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/31/24 07:50	1	0.020	11/05/24 09:57	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-15
Name: OM07
Matrix: Ground Water - Grab

Sampled: 10/24/24 08:49
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.9	mg/L		11/01/24 00:11	1	1.0	11/01/24 00:11	JSM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/01/24 00:11	1	0.250	11/01/24 00:11	JSM	EPA 300.0 REV 2.1
Sulfate	190	mg/L		11/01/24 00:45	25	25	11/01/24 00:45	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.62	Feet		10/24/24 08:49	1		10/24/24 08:49	KD	Field*
Dissolved oxygen, Field	0.020	mg/L		10/24/24 08:49	1		10/24/24 08:49	KD	Field*
Oxidation Reduction Potential	-107	mV		10/24/24 08:49	1	-500	10/24/24 08:49	KD	Field*
pH, Field Measured	6.78	pH Units		10/24/24 08:49	1		10/24/24 08:49	KD	Field*
Specific Conductance, Field Measured	1276	umhos/cm		10/24/24 08:49	1		10/24/24 08:49	KD	Field*
Temperature, Field Measured	12.9	°C		10/24/24 08:49	1		10/24/24 08:49	KD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/24/24 08:49	1	0.00	10/24/24 08:49	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	720	mg/L		10/31/24 09:22	1	26	10/31/24 14:54	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 16:25	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Barium	49	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Boron	520	ug/L		10/31/24 07:50	5	10	11/04/24 11:23	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Calcium	130	mg/L		10/31/24 07:50	5	0.20	11/01/24 16:25	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 16:25	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/31/24 07:50	5	2.0	11/01/24 16:25	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Magnesium	73	mg/L		10/31/24 07:50	5	0.10	11/04/24 11:23	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 16:25	TJJ	EPA 6020A
Molybdenum	1.2	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Potassium	1.2	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:25	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-15
Name: OM07
Matrix: Ground Water - Grab

Sampled: 10/24/24 08:49
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Sodium	58	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:25	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:25	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/31/24 07:50	1	0.020	11/05/24 09:59	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-16
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 10/24/24 09:38
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	780	mg/L		11/01/24 01:19	250	250	11/01/24 01:19	JSM	EPA 300.0 REV 2.1
Sulfate	1100	mg/L		11/01/24 01:19	250	250	11/01/24 01:19	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.19	Feet		10/24/24 09:38	1		10/24/24 09:38	KD	Field*
Dissolved oxygen, Field	2.6	mg/L		10/24/24 09:38	1		10/24/24 09:38	KD	Field*
Oxidation Reduction Potential	-60.9	mV		10/24/24 09:38	1	-500	10/24/24 09:38	KD	Field*
pH, Field Measured	6.79	pH Units		10/24/24 09:38	1		10/24/24 09:38	KD	Field*
Specific Conductance, Field Measured	3082	umhos/cm		10/24/24 09:38	1		10/24/24 09:38	KD	Field*
Temperature, Field Measured	14.1	°C		10/24/24 09:38	1		10/24/24 09:38	KD	Field*
Turbidity, Field Measured	47.7	NTU		10/24/24 09:38	1	0.00	10/24/24 09:38	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	200	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/04/24 15:53	1	0.250	11/04/24 15:53	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3700	mg/L		10/31/24 09:33	1	26	10/31/24 15:55	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 17:11	TJJ	EPA 6020A
Arsenic	10	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Barium	32	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Boron	150000	ug/L		10/31/24 07:50	100	200	11/05/24 10:58	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Calcium	720	mg/L		10/31/24 07:50	100	4.0	11/05/24 10:58	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 17:11	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/31/24 07:50	5	2.0	11/01/24 17:11	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Magnesium	140	mg/L		10/31/24 07:50	100	2.0	11/05/24 10:58	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 17:11	TJJ	EPA 6020A
Molybdenum	230	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Potassium	5.0	mg/L		10/31/24 07:50	5	0.10	11/01/24 17:11	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-16
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 10/24/24 09:38
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Sodium	120	mg/L		10/31/24 07:50	5	0.10	11/01/24 17:11	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:11	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/31/24 07:50	1	0.020	11/05/24 10:00	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-17
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 10/24/24 11:35
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	1000	mg/L		11/01/24 14:34	250	250	11/01/24 14:34	JSM	EPA 300.0 REV 2.1
Sulfate	830	mg/L		11/01/24 14:34	250	250	11/01/24 14:34	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	20.12	Feet		10/24/24 11:35	1		10/24/24 11:35	KD	Field*
Dissolved oxygen, Field	0.94	mg/L		10/24/24 11:35	1		10/24/24 11:35	KD	Field*
Oxidation Reduction Potential	-105	mV		10/24/24 11:35	1	-500	10/24/24 11:35	KD	Field*
pH, Field Measured	6.71	pH Units		10/24/24 11:35	1		10/24/24 11:35	KD	Field*
Specific Conductance, Field Measured	4777	umhos/cm		10/24/24 11:35	1		10/24/24 11:35	KD	Field*
Temperature, Field Measured	13.3	°C		10/24/24 11:35	1		10/24/24 11:35	KD	Field*
Turbidity, Field Measured	312	NTU		10/24/24 11:35	1	0.00	10/24/24 11:35	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/04/24 16:03	1	0.250	11/04/24 16:03	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3500	mg/L		10/31/24 09:33	1	26	10/31/24 15:55	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 17:14	TJJ	EPA 6020A
Arsenic	3.2	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Barium	45	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Boron	63000	ug/L		10/31/24 07:50	100	200	11/05/24 11:02	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Calcium	620	mg/L		10/31/24 07:50	100	4.0	11/05/24 11:02	TJJ	EPA 6020A
Chromium	25	ug/L		10/31/24 07:50	5	4.0	11/01/24 17:14	TJJ	EPA 6020A
Cobalt	3.3	ug/L		10/31/24 07:50	5	2.0	11/01/24 17:14	TJJ	EPA 6020A
Lead	1.9	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Magnesium	180	mg/L		10/31/24 07:50	100	2.0	11/05/24 11:02	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 17:14	TJJ	EPA 6020A
Molybdenum	130	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Potassium	10	mg/L		10/31/24 07:50	5	0.10	11/01/24 17:14	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-17
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 10/24/24 11:35
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Sodium	170	mg/L		10/31/24 07:50	5	0.10	11/01/24 17:14	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 17:14	TJJ	EPA 6020A
Lithium	0.046	mg/L		10/31/24 07:50	1	0.020	11/05/24 10:01	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-23
Name: OM01
Matrix: Ground Water - Grab

Sampled: 10/24/24 14:10
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	45	mg/L		11/01/24 16:33	10	10	11/01/24 16:33	JSM	EPA 300.0 REV 2.1
Sulfate	1700	mg/L		11/01/24 17:26	500	500	11/01/24 17:26	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.69	Feet		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Oxidation Reduction Potential	-19.0	mV		10/24/24 14:10	1	-500	10/24/24 14:10	KD	Field*
pH, Field Measured	7.06	pH Units		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Specific Conductance, Field Measured	3340	umhos/cm		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Temperature, Field Measured	15.6	°C		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/24/24 14:10	1	0.00	10/24/24 14:10	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	520	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/04/24 16:24	1	0.250	11/04/24 16:24	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3100	mg/L		10/31/24 09:33	1	26	10/31/24 15:55	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 16:44	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Barium	12	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Boron	230	ug/L		10/31/24 07:50	5	10	11/04/24 10:53	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Calcium	610	mg/L		10/31/24 07:50	100	4.0	11/11/24 11:33	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 16:44	TJJ	EPA 6020A
Cobalt	13	ug/L		10/31/24 07:50	5	2.0	11/01/24 16:44	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Magnesium	230	mg/L		10/31/24 07:50	5	0.10	11/04/24 10:53	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 16:44	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Potassium	0.97	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:44	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-23
Name: OM01
Matrix: Ground Water - Grab

Sampled: 10/24/24 14:10
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Sodium	30	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:44	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:44	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/31/24 07:50	1	0.020	11/05/24 10:10	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: HJ04816-24
Name: OM01 Dup
Matrix: Ground Water - Grab

Sampled: 10/24/24 14:10
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	37	mg/L		11/01/24 17:43	10	10	11/01/24 17:43	JSM	EPA 300.0 REV 2.1
Sulfate	1700	mg/L		11/01/24 18:00	500	500	11/01/24 18:00	JSM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.69	Feet		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Dissolved oxygen, Field	0.0	mg/L		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Oxidation Reduction Potential	-19.0	mV		10/24/24 14:10	1	-500	10/24/24 14:10	KD	Field*
pH, Field Measured	7.06	pH Units		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Specific Conductance, Field Measured	3340	umhos/cm		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Temperature, Field Measured	15.6	°C		10/24/24 14:10	1		10/24/24 14:10	KD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/24/24 14:10	1	0.00	10/24/24 14:10	KD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	550	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/04/24 16:10	1	10	11/04/24 16:10	TMS	SM 2320 B-2011*
Fluoride	< 0.250	mg/L		11/04/24 16:26	1	0.250	11/04/24 16:26	QTC	SM 4500-F C-2011
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	3200	mg/L		10/31/24 09:33	1	26	10/31/24 15:55	CFM	SM 2540 C-2011
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/31/24 07:50	5	3.0	11/01/24 16:59	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Barium	13	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Boron	250	ug/L		10/31/24 07:50	10	20	11/04/24 11:30	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Calcium	570	mg/L		10/31/24 07:50	10	0.40	11/11/24 11:26	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/31/24 07:50	5	4.0	11/01/24 16:59	TJJ	EPA 6020A
Cobalt	18	ug/L		10/31/24 07:50	5	2.0	11/01/24 16:59	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Magnesium	250	mg/L		10/31/24 07:50	10	0.20	11/04/24 11:30	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/31/24 07:50	5	0.20	11/01/24 16:59	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Potassium	0.95	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:59	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: HJ04816-24
Name: OM01 Dup
Matrix: Ground Water - Grab

Sampled: 10/24/24 14:10
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Sodium	30	mg/L		10/31/24 07:50	5	0.10	11/01/24 16:59	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/31/24 07:50	5	1.0	11/01/24 16:59	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/31/24 07:50	1	0.020	11/05/24 10:11	BRS	EPA 6010B

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B446156 - SW 3015 - EPA 6010B									
Blank (B446156-BLK1)				Prepared & Analyzed: 10/17/24					
Lithium	< 0.020	mg/L							
LCS (B446156-BS1)				Prepared & Analyzed: 10/17/24					
Lithium	0.531	mg/L		0.5556		96	80-120		
Matrix Spike (B446156-MS1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/17/24					
Lithium	0.526	mg/L		0.5556	ND	95	75-125		
Matrix Spike Dup (B446156-MSD1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/17/24					
Lithium	0.527	mg/L		0.5556	ND	95	75-125	0.3	20
Batch B446156 - SW 3015 - EPA 6020A									
Blank (B446156-BLK1)				Prepared: 10/17/24 Analyzed: 10/25/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B446156-BS1)				Prepared: 10/17/24 Analyzed: 10/25/24					
Antimony	509	ug/L		555.6		92	80-120		
Arsenic	532	ug/L		555.6		96	80-120		
Barium	553	ug/L		555.6		100	80-120		
Beryllium	604	ug/L		555.6		109	80-120		
Boron	556	ug/L		555.6		100	80-120		
Cadmium	556	ug/L		555.6		100	80-120		
Calcium	5.55	mg/L		5.556		100	80-120		
Chromium	584	ug/L		555.6		105	80-120		
Cobalt	583	ug/L		555.6		105	80-120		
Lead	610	ug/L		555.6		110	80-120		
Magnesium	5.91	mg/L		5.556		106	80-120		
Mercury	51.0	ug/L		55.56		92	80-120		
Molybdenum	540	ug/L		555.6		97	80-120		
Potassium	5.49	mg/L		5.556		99	80-120		
Selenium	551	ug/L		555.6		99	80-120		
Sodium	5.76	mg/L		5.556		104	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B446156-BS1)				Prepared: 10/17/24 Analyzed: 10/25/24					
Thallium	597	ug/L		555.6		107	80-120		
Matrix Spike (B446156-MS1)	**Sample: HJ03204-01**			Prepared: 10/17/24 Analyzed: 10/25/24					
Antimony	513	ug/L		555.6	ND	92	75-125		
Arsenic	547	ug/L		555.6	1.78	98	75-125		
Barium	607	ug/L		555.6	37.8	103	75-125		
Beryllium	577	ug/L		555.6	ND	104	75-125		
Boron	599	ug/L		555.6	52.4	98	75-125		
Cadmium	553	ug/L		555.6	ND	100	75-125		
Calcium	394	mg/L	Q4	5.556	392	37	75-125		
Chromium	585	ug/L		555.6	ND	105	75-125		
Cobalt	578	ug/L		555.6	6.18	103	75-125		
Lead	584	ug/L		555.6	ND	105	75-125		
Magnesium	128	mg/L	Q4	5.556	125	57	75-125		
Mercury	53.0	ug/L		55.56	ND	95	75-125		
Molybdenum	563	ug/L		555.6	1.34	101	75-125		
Potassium	6.40	mg/L		5.556	0.800	101	75-125		
Selenium	561	ug/L		555.6	ND	101	75-125		
Sodium	12.3	mg/L		5.556	6.75	99	75-125		
Thallium	573	ug/L		555.6	ND	103	75-125		
Matrix Spike Dup (B446156-MSD1)	**Sample: HJ03204-01**			Prepared: 10/17/24 Analyzed: 10/25/24					
Antimony	513	ug/L		555.6	ND	92	75-125	0.02	20
Arsenic	542	ug/L		555.6	1.78	97	75-125	0.9	20
Barium	601	ug/L		555.6	37.8	101	75-125	1	20
Beryllium	575	ug/L		555.6	ND	104	75-125	0.4	20
Boron	590	ug/L		555.6	52.4	97	75-125	2	20
Cadmium	553	ug/L		555.6	ND	100	75-125	0.07	20
Calcium	392	mg/L	Q4	5.556	392	5	75-125	0.5	20
Chromium	582	ug/L		555.6	ND	105	75-125	0.5	20
Cobalt	574	ug/L		555.6	6.18	102	75-125	0.6	20
Lead	589	ug/L		555.6	ND	106	75-125	0.9	20
Magnesium	128	mg/L	Q4	5.556	125	57	75-125	0.009	20
Mercury	53.8	ug/L		55.56	ND	97	75-125	1	20
Molybdenum	554	ug/L		555.6	1.34	99	75-125	2	20
Potassium	6.33	mg/L		5.556	0.800	99	75-125	1	20
Selenium	557	ug/L		555.6	ND	100	75-125	0.6	20
Sodium	12.2	mg/L		5.556	6.75	98	75-125	0.6	20
Thallium	583	ug/L		555.6	ND	105	75-125	2	20
Batch B446453 - SW 3015 - EPA 6010B									
Blank (B446453-BLK1)				Prepared: 10/21/24 Analyzed: 10/22/24					
Lithium	< 0.020	mg/L							
LCS (B446453-BS1)				Prepared: 10/21/24 Analyzed: 10/22/24					
Lithium	0.556	mg/L		0.5556		100	80-120		
Batch B446453 - SW 3015 - EPA 6020A									
Blank (B446453-BLK1)				Prepared: 10/21/24 Analyzed: 10/22/24					
Antimony	< 3.0	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B446453-BLK1)				Prepared: 10/21/24 Analyzed: 10/22/24					
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B446453-BS1)				Prepared: 10/21/24 Analyzed: 10/22/24					
Antimony	562	ug/L		555.6		101	80-120		
Arsenic	582	ug/L		555.6		105	80-120		
Barium	593	ug/L		555.6		107	80-120		
Beryllium	627	ug/L		555.6		113	80-120		
Boron	585	ug/L		555.6		105	80-120		
Cadmium	559	ug/L		555.6		101	80-120		
Calcium	5.81	mg/L		5.556		105	80-120		
Chromium	604	ug/L		555.6		109	80-120		
Cobalt	607	ug/L		555.6		109	80-120		
Lead	591	ug/L		555.6		106	80-120		
Magnesium	6.02	mg/L		5.556		108	80-120		
Mercury	55.4	ug/L		55.56		100	80-120		
Molybdenum	560	ug/L		555.6		101	80-120		
Potassium	5.91	mg/L		5.556		106	80-120		
Selenium	588	ug/L		555.6		106	80-120		
Sodium	5.95	mg/L		5.556		107	80-120		
Thallium	593	ug/L		555.6		107	80-120		
Matrix Spike (B446453-MS1)	**Sample: HJ03498-10**			Prepared: 10/21/24 Analyzed: 10/23/24					
Antimony	552	ug/L		555.6	ND	99	75-125		
Arsenic	592	ug/L		555.6	ND	106	75-125		
Barium	663	ug/L		555.6	55.6	109	75-125		
Beryllium	625	ug/L		555.6	ND	113	75-125		
Boron	569	ug/L		555.6	10.0	101	75-125		
Cadmium	601	ug/L		555.6	ND	108	75-125		
Calcium	120	mg/L		5.556	115	94	75-125		
Chromium	603	ug/L		555.6	ND	109	75-125		
Cobalt	621	ug/L		555.6	28.9	107	75-125		
Lead	613	ug/L		555.6	0.233	110	75-125		
Magnesium	76.3	mg/L		5.556	70.6	103	75-125		
Mercury	55.8	ug/L		55.56	ND	100	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B446453-MS1)	**Sample: HJ03498-10**			Prepared: 10/21/24 Analyzed: 10/23/24					
Molybdenum	588	ug/L		555.6	ND	106	75-125		
Potassium	6.69	mg/L		5.556	0.736	107	75-125		
Selenium	598	ug/L		555.6	5.18	107	75-125		
Sodium	23.3	mg/L		5.556	17.5	104	75-125		
Thallium	586	ug/L		555.6	ND	106	75-125		
Matrix Spike Dup (B446453-MSD1)	**Sample: HJ03498-10**			Prepared: 10/21/24 Analyzed: 10/23/24					
Antimony	564	ug/L		555.6	ND	102	75-125	2	20
Arsenic	593	ug/L		555.6	ND	107	75-125	0.2	20
Barium	674	ug/L		555.6	55.6	111	75-125	2	20
Beryllium	621	ug/L		555.6	ND	112	75-125	0.6	20
Boron	569	ug/L		555.6	10.0	101	75-125	0.2	20
Cadmium	602	ug/L		555.6	ND	108	75-125	0.3	20
Calcium	119	mg/L	Q4	5.556	115	72	75-125	1	20
Chromium	618	ug/L		555.6	ND	111	75-125	2	20
Cobalt	632	ug/L		555.6	28.9	109	75-125	2	20
Lead	626	ug/L		555.6	0.233	113	75-125	2	20
Magnesium	75.6	mg/L		5.556	70.6	91	75-125	0.9	20
Mercury	57.0	ug/L		55.56	ND	103	75-125	2	20
Molybdenum	604	ug/L		555.6	ND	109	75-125	3	20
Potassium	6.74	mg/L		5.556	0.736	108	75-125	0.7	20
Selenium	602	ug/L		555.6	5.18	107	75-125	0.7	20
Sodium	23.3	mg/L		5.556	17.5	104	75-125	0.1	20
Thallium	589	ug/L		555.6	ND	106	75-125	0.5	20
Batch B446520 - No Prep - SM 2540 C-2011									
Blank (B446520-BLK1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446520-BS1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	923	mg/L		1000		92	84.4-107		
Duplicate (B446520-DUP1)	**Sample: HJ03204-10**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	355	mg/L	M		375			5	5
Duplicate (B446520-DUP2)	**Sample: HJ03204-11**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	390	mg/L			410			5	5
Batch B446521 - No Prep - SM 2540 C-2011									
Blank (B446521-BLK1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446521-BS1)				Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	943	mg/L		1000		94	84.4-107		
Duplicate (B446521-DUP1)	**Sample: HJ03498-01**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	530	mg/L			540			2	5
Duplicate (B446521-DUP2)	**Sample: HJ03498-10**			Prepared & Analyzed: 10/22/24					
Solids - total dissolved solids (TDS)	570	mg/L	M		540			5	5
Batch B446640 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B446640-CCB1)				Prepared & Analyzed: 10/22/24					
Chloride	0.00	mg/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B446640-CCB1)				Prepared & Analyzed: 10/22/24					
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B446640-CCV1)				Prepared & Analyzed: 10/22/24					
Chloride	5.06	mg/L		5.000		101	90-110		
Fluoride	5.24	mg/L		5.000		105	90-110		
Sulfate	5.03	mg/L		5.000		101	90-110		
Matrix Spike (B446640-MS1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/22/24					
Sulfate	1.00E9	mg/L	Q4	1.500	917	NR	80-120		
Chloride	4.0	mg/L	Q1	1.500	2.1	124	80-120		
Matrix Spike (B446640-MS2)	**Sample: HJ03204-05**			Prepared & Analyzed: 10/22/24					
Chloride	1.0E9	mg/L	Q4	1.500	14	NR	80-120		
Fluoride	1.79	mg/L		1.500	0.197	106	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	131	NR	80-120		
Matrix Spike (B446640-MS3)	**Sample: HJ03204-09**			Prepared & Analyzed: 10/22/24					
Fluoride	1.79	mg/L		1.500	0.212	106	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	41.3	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Matrix Spike Dup (B446640-MSD1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/22/24					
Chloride	3.9	mg/L		1.500	2.1	118	80-120	2	20
Sulfate	1.00E9	mg/L	Q4	1.500	917	NR	80-120	0	20
Matrix Spike Dup (B446640-MSD2)	**Sample: HJ03204-05**			Prepared & Analyzed: 10/22/24					
Chloride	1.0E9	mg/L	Q4	1.500	14	NR	80-120	0	20
Fluoride	1.79	mg/L		1.500	0.197	106	80-120	0.02	20
Sulfate	1.00E9	mg/L	Q4	1.500	131	NR	80-120	0	20
Matrix Spike Dup (B446640-MSD3)	**Sample: HJ03204-09**			Prepared & Analyzed: 10/22/24					
Fluoride	1.80	mg/L		1.500	0.212	106	80-120	0.4	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	41.3	NR	80-120	0	20
Batch B446650 - No Prep - SM 2540 C-2011									
Blank (B446650-BLK1)				Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446650-BS1)				Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	950	mg/L		1000		95	84.4-107		
Duplicate (B446650-DUP1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	4600	mg/L			4660			1	5
Duplicate (B446650-DUP2)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/23/24					
Solids - total dissolved solids (TDS)	2570	mg/L			2500			3	5
Batch B446737 - No Prep - SM 2320 B-2011									
Duplicate (B446737-DUP1)	**Sample: HJ03204-01**			Prepared & Analyzed: 10/24/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	450	mg/L			438			3	10
Duplicate (B446737-DUP2)	**Sample: HJ03204-10**			Prepared & Analyzed: 10/24/24					
Alkalinity - bicarbonate as CaCO3	338	mg/L			350			4	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B446746 - No Prep - SM 2540 C-2011									
Blank (B446746-BLK1)				Prepared & Analyzed: 10/24/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446746-BS1)				Prepared & Analyzed: 10/24/24					
Solids - total dissolved solids (TDS)	937	mg/L		1000		94	84.4-107		
Duplicate (B446746-DUP2)	**Sample: HJ03764-10RE1**			Prepared & Analyzed: 10/24/24					
Solids - total dissolved solids (TDS)	2550	mg/L			2600			2	5
Batch B446747 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B446747-CCB1)				Prepared & Analyzed: 10/23/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B446747-CCV1)				Prepared & Analyzed: 10/23/24					
Chloride	5.05	mg/L		5.000		101	90-110		
Sulfate	4.89	mg/L		5.000		98	90-110		
Matrix Spike (B446747-MS1)	**Sample: HJ03498-10**			Prepared & Analyzed: 10/23/24					
Chloride	1.0E9	mg/L	Q4	1.500	20	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	86.9	NR	80-120		
Matrix Spike Dup (B446747-MSD1)	**Sample: HJ03498-10**			Prepared & Analyzed: 10/23/24					
Chloride	1.0E9	mg/L	Q4	1.500	20	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	86.9	NR	80-120	0	20
Batch B446900 - No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B446900-CCB1)				Prepared & Analyzed: 10/24/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B446900-CCV1)				Prepared & Analyzed: 10/24/24					
Chloride	4.98	mg/L		5.000		100	90-110		
Sulfate	4.82	mg/L		5.000		96	90-110		
Matrix Spike (B446900-MS1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/24/24					
Sulfate	1.00E9	mg/L	Q4	1.500	633	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	1500	NR	80-120		
Matrix Spike (B446900-MS2)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/24/24					
Sulfate	1.00E9	mg/L	Q4	1.500	727	NR	80-120		
Chloride	< 1.0	mg/L	Q4	1.500	640	NR	80-120		
Matrix Spike Dup (B446900-MSD1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/24/24					
Sulfate	1.00E9	mg/L	Q4	1.500	633	NR	80-120	0	20
Chloride	< 1.0	mg/L	Q4	1.500	1500	NR	80-120		20
Matrix Spike Dup (B446900-MSD2)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/24/24					
Chloride	< 1.0	mg/L	Q4	1.500	640	NR	80-120		20
Sulfate	1.00E9	mg/L	Q4	1.500	727	NR	80-120	0	20
Batch B446964 - No Prep - SM 4500-F C-2011									
Calibration Blank (B446964-CCB1)				Prepared & Analyzed: 10/25/24					
Fluoride	0.0170	mg/L							
Calibration Blank (B446964-CCB2)				Prepared & Analyzed: 10/25/24					
Fluoride	0.0290	mg/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B446964-CCV1)				Prepared & Analyzed: 10/25/24					
Fluoride	0.705	mg/L		0.7000		101	90-110		
Calibration Check (B446964-CCV2)				Prepared & Analyzed: 10/25/24					
Fluoride	0.693	mg/L		0.7000		99	90-110		
Batch B446976 - SW 3015 - EPA 6010B									
Blank (B446976-BLK1)				Prepared: 10/28/24 Analyzed: 10/30/24					
Lithium	< 0.020	mg/L							
LCS (B446976-BS1)				Prepared: 10/28/24 Analyzed: 10/30/24					
Lithium	0.513	mg/L		0.5556		92	80-120		
Batch B446976 - SW 3015 - EPA 6020A									
Blank (B446976-BLK1)				Prepared & Analyzed: 10/28/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B446976-BS1)				Prepared & Analyzed: 10/28/24					
Antimony	509	ug/L		555.6		92	80-120		
Arsenic	558	ug/L		555.6		100	80-120		
Barium	581	ug/L		555.6		105	80-120		
Beryllium	588	ug/L		555.6		106	80-120		
Boron	517	ug/L		555.6		93	80-120		
Cadmium	576	ug/L		555.6		104	80-120		
Calcium	5.34	mg/L		5.556		96	80-120		
Chromium	592	ug/L		555.6		107	80-120		
Cobalt	600	ug/L		555.6		108	80-120		
Lead	557	ug/L		555.6		100	80-120		
Magnesium	5.87	mg/L		5.556		106	80-120		
Mercury	51.8	ug/L		55.56		93	80-120		
Molybdenum	557	ug/L		555.6		100	80-120		
Potassium	5.67	mg/L		5.556		102	80-120		
Selenium	562	ug/L		555.6		101	80-120		
Sodium	5.71	mg/L		5.556		103	80-120		
Thallium	555	ug/L		555.6		100	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B446976-MS1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/28/24					
Antimony	524	ug/L		555.6	ND	94	75-125		
Arsenic	590	ug/L		555.6	ND	106	75-125		
Barium	698	ug/L		555.6	101	107	75-125		
Beryllium	594	ug/L		555.6	ND	107	75-125		
Boron	1170	ug/L		555.6	640	96	75-125		
Cadmium	623	ug/L		555.6	ND	112	75-125		
Calcium	745	mg/L	Q4	5.556	746	NR	75-125		
Chromium	608	ug/L		555.6	ND	109	75-125		
Cobalt	599	ug/L		555.6	ND	108	75-125		
Lead	558	ug/L		555.6	ND	100	75-125		
Magnesium	442	mg/L	Q4	5.556	444	NR	75-125		
Mercury	56.4	ug/L		55.56	0.300	101	75-125		
Molybdenum	648	ug/L		555.6	ND	117	75-125		
Potassium	6.21	mg/L		5.556	0.721	99	75-125		
Selenium	868	ug/L		555.6	283	105	75-125		
Sodium	47.2	mg/L		5.556	42.0	93	75-125		
Thallium	559	ug/L		555.6	ND	101	75-125		
Matrix Spike Dup (B446976-MSD1)	**Sample: HJ03764-01**			Prepared & Analyzed: 10/28/24					
Antimony	533	ug/L		555.6	ND	96	75-125	2	20
Arsenic	591	ug/L		555.6	ND	106	75-125	0.2	20
Barium	695	ug/L		555.6	101	107	75-125	0.4	20
Beryllium	569	ug/L		555.6	ND	102	75-125	4	20
Boron	1130	ug/L		555.6	640	88	75-125	4	20
Cadmium	621	ug/L		555.6	ND	112	75-125	0.4	20
Calcium	739	mg/L	Q4	5.556	746	NR	75-125	0.8	20
Chromium	598	ug/L		555.6	ND	108	75-125	2	20
Cobalt	600	ug/L		555.6	ND	108	75-125	0.2	20
Lead	548	ug/L		555.6	ND	99	75-125	2	20
Magnesium	439	mg/L	Q4	5.556	444	NR	75-125	0.6	20
Mercury	56.2	ug/L		55.56	0.300	101	75-125	0.2	20
Molybdenum	629	ug/L		555.6	ND	113	75-125	3	20
Potassium	6.18	mg/L		5.556	0.721	98	75-125	0.4	20
Selenium	866	ug/L		555.6	283	105	75-125	0.2	20
Sodium	46.6	mg/L		5.556	42.0	83	75-125	1	20
Thallium	553	ug/L		555.6	ND	99	75-125	1	20
Batch B446982 - No Prep - SM 2540 C-2011									
Blank (B446982-BLK1)				Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B446982-BS1)				Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	953	mg/L		1000		95	84.4-107		
Duplicate (B446982-DUP1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	2040	mg/L			2000			1	5
Duplicate (B446982-DUP2)	**Sample: HJ04300-11**			Prepared & Analyzed: 10/28/24					
Solids - total dissolved solids (TDS)	620	mg/L			590			5	5
Batch B447036 - No Prep - SM 2320 B-2011									

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B447036-DUP2)	**Sample: HJ03498-08**			Prepared & Analyzed: 10/28/24					
Alkalinity - bicarbonate as CaCO3	525	mg/L			500			5	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B447036-DUP3)	**Sample: HJ03764-10**			Prepared & Analyzed: 10/28/24					
Alkalinity - bicarbonate as CaCO3	488	mg/L			488			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B447036-DUP4)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Alkalinity - bicarbonate as CaCO3	438	mg/L			438			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B447036-DUP5)	**Sample: HJ04300-10**			Prepared & Analyzed: 10/28/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	450	mg/L			425			6	10
Batch B447073 - SW 3015 - EPA 6010B									
Blank (B447073-BLK1)				Prepared: 10/29/24 Analyzed: 10/30/24					
Lithium	< 0.020	mg/L							
LCS (B447073-BS1)				Prepared: 10/29/24 Analyzed: 10/30/24					
Lithium	0.513	mg/L		0.5556		92	80-120		
Batch B447073 - SW 3015 - EPA 6020A									
Blank (B447073-BLK1)				Prepared & Analyzed: 10/29/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B447073-BS1)				Prepared & Analyzed: 10/29/24					
Antimony	528	ug/L		555.6		95	80-120		
Arsenic	529	ug/L		555.6		95	80-120		
Barium	551	ug/L		555.6		99	80-120		
Beryllium	528	ug/L		555.6		95	80-120		
Boron	501	ug/L		555.6		90	80-120		
Cadmium	534	ug/L		555.6		96	80-120		
Calcium	5.56	mg/L		5.556		100	80-120		
Chromium	554	ug/L		555.6		100	80-120		
Cobalt	547	ug/L		555.6		98	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B447073-BS1)				Prepared & Analyzed: 10/29/24					
Lead	534	ug/L		555.6		96	80-120		
Magnesium	5.63	mg/L		5.556		101	80-120		
Mercury	51.7	ug/L		55.56		93	80-120		
Molybdenum	521	ug/L		555.6		94	80-120		
Potassium	5.62	mg/L		5.556		101	80-120		
Selenium	531	ug/L		555.6		96	80-120		
Sodium	5.66	mg/L		5.556		102	80-120		
Thallium	523	ug/L		555.6		94	80-120		
Batch B447093 - No Prep - SM 2540 C-2011									
Blank (B447093-BLK1)				Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B447093-BS1)				Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	913	mg/L		1000		91	84.4-107		
Duplicate (B447093-DUP1)	**Sample: HJ04540-09**			Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	460	mg/L	M		435			6	5
Duplicate (B447093-DUP2)	**Sample: HJ04540-10**			Prepared & Analyzed: 10/29/24					
Solids - total dissolved solids (TDS)	575	mg/L	M		615			7	5
Batch B447106 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447106-CCB1)				Prepared & Analyzed: 10/28/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B447106-CCV1)				Prepared & Analyzed: 10/28/24					
Chloride	5.02	mg/L		5.000		100	90-110		
Sulfate	4.68	mg/L		5.000		94	90-110		
Matrix Spike (B447106-MS1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Sulfate	1.00E9	mg/L	Q4	1.500	685	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	270	NR	80-120		
Matrix Spike (B447106-MS2)	**Sample: HJ04300-12**			Prepared & Analyzed: 10/28/24					
Chloride	4.1	mg/L		1.500	2.7	98	80-120		
Matrix Spike Dup (B447106-MSD1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/28/24					
Sulfate	1.00E9	mg/L	Q4	1.500	685	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	270	NR	80-120	0	20
Matrix Spike Dup (B447106-MSD2)	**Sample: HJ04300-12**			Prepared & Analyzed: 10/28/24					
Chloride	4.1	mg/L		1.500	2.7	98	80-120	0.1	20
Batch B447194 - SW 3015 - EPA 6010B									
Blank (B447194-BLK1)				Prepared & Analyzed: 10/30/24					
Lithium	< 0.020	mg/L							
LCS (B447194-BS1)				Prepared & Analyzed: 10/30/24					
Lithium	0.517	mg/L		0.5556		93	80-120		
Matrix Spike (B447194-MS1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/30/24					
Lithium	0.551	mg/L		0.5556	0.0205	95	75-125		
Matrix Spike Dup (B447194-MSD1)	**Sample: HJ04300-01**			Prepared & Analyzed: 10/30/24					
Lithium	0.550	mg/L		0.5556	0.0205	95	75-125	0.2	20

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B447194 - SW 3015 - EPA 6020A									
Blank (B447194-BLK1)				Prepared: 10/30/24 Analyzed: 10/31/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B447194-BS1)				Prepared: 10/30/24 Analyzed: 10/31/24					
Antimony	531	ug/L		555.6		96	80-120		
Arsenic	525	ug/L		555.6		95	80-120		
Barium	550	ug/L		555.6		99	80-120		
Beryllium	512	ug/L		555.6		92	80-120		
Boron	536	ug/L		555.6		96	80-120		
Cadmium	520	ug/L		555.6		94	80-120		
Calcium	5.35	mg/L		5.556		96	80-120		
Chromium	543	ug/L		555.6		98	80-120		
Cobalt	563	ug/L		555.6		101	80-120		
Lead	519	ug/L		555.6		93	80-120		
Magnesium	5.60	mg/L		5.556		101	80-120		
Mercury	50.1	ug/L		55.56		90	80-120		
Molybdenum	505	ug/L		555.6		91	80-120		
Potassium	5.38	mg/L		5.556		97	80-120		
Selenium	531	ug/L		555.6		96	80-120		
Sodium	5.69	mg/L		5.556		102	80-120		
Thallium	532	ug/L		555.6		96	80-120		
Matrix Spike (B447194-MS1)	**Sample: HJ04300-01**			Prepared: 10/30/24 Analyzed: 10/31/24					
Antimony	529	ug/L		555.6	ND	95	75-125		
Arsenic	540	ug/L		555.6	2.22	97	75-125		
Barium	569	ug/L		555.6	20.6	99	75-125		
Beryllium	495	ug/L		555.6	ND	89	75-125		
Boron	18300	ug/L	Q4	555.6	17300	182	75-125		
Cadmium	523	ug/L		555.6	ND	94	75-125		
Calcium	392	mg/L	Q4	5.556	390	38	75-125		
Chromium	550	ug/L		555.6	ND	99	75-125		
Cobalt	550	ug/L		555.6	0.494	99	75-125		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B447194-MS1)	**Sample: HJ04300-01**			Prepared: 10/30/24 Analyzed: 10/31/24					
Lead	504	ug/L		555.6	ND	91	75-125		
Magnesium	122	mg/L		5.556	117	79	75-125		
Mercury	51.9	ug/L		55.56	ND	93	75-125		
Molybdenum	532	ug/L		555.6	4.72	95	75-125		
Potassium	9.61	mg/L		5.556	4.37	94	75-125		
Selenium	558	ug/L		555.6	ND	100	75-125		
Sodium	50.9	mg/L		5.556	45.5	96	75-125		
Thallium	521	ug/L		555.6	ND	94	75-125		
Matrix Spike Dup (B447194-MSD1)	**Sample: HJ04300-01**			Prepared: 10/30/24 Analyzed: 10/31/24					
Antimony	541	ug/L		555.6	ND	97	75-125	2	20
Arsenic	543	ug/L		555.6	2.22	97	75-125	0.5	20
Barium	575	ug/L		555.6	20.6	100	75-125	1	20
Beryllium	490	ug/L		555.6	ND	88	75-125	0.9	20
Boron	17700	ug/L		555.6	17300	81	75-125	3	20
Cadmium	530	ug/L		555.6	ND	95	75-125	1	20
Calcium	389	mg/L	Q4	5.556	390	NR	75-125	0.9	20
Chromium	552	ug/L		555.6	ND	99	75-125	0.4	20
Cobalt	562	ug/L		555.6	0.494	101	75-125	2	20
Lead	504	ug/L		555.6	ND	91	75-125	0.1	20
Magnesium	119	mg/L	Q4	5.556	117	31	75-125	2	20
Mercury	50.0	ug/L		55.56	ND	90	75-125	4	20
Molybdenum	539	ug/L		555.6	4.72	96	75-125	1	20
Potassium	9.56	mg/L		5.556	4.37	93	75-125	0.6	20
Selenium	544	ug/L		555.6	ND	98	75-125	3	20
Sodium	50.7	mg/L		5.556	45.5	93	75-125	0.3	20
Thallium	524	ug/L		555.6	ND	94	75-125	0.6	20
Batch B447204 - No Prep - SM 2540 C-2011									
Blank (B447204-BLK1)				Prepared & Analyzed: 10/30/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B447204-BS1)				Prepared & Analyzed: 10/30/24					
Solids - total dissolved solids (TDS)	947	mg/L		1000		95	84.4-107		
Duplicate (B447204-DUP1)	**Sample: HJ04540-01**			Prepared & Analyzed: 10/30/24					
Solids - total dissolved solids (TDS)	365	mg/L	M		340			7	5
Duplicate (B447204-DUP2)	**Sample: HJ04540-04**			Prepared & Analyzed: 10/30/24					
Solids - total dissolved solids (TDS)	845	mg/L			845			0	5
Batch B447246 - No Prep - SM 4500-F C-2011									
Calibration Blank (B447246-CCB1)				Prepared & Analyzed: 10/30/24					
Fluoride	0.0270	mg/L							
Calibration Blank (B447246-CCB2)				Prepared & Analyzed: 10/30/24					
Fluoride	0.0240	mg/L							
Calibration Check (B447246-CCV1)				Prepared & Analyzed: 10/30/24					
Fluoride	0.700	mg/L		0.7000		100	90-110		
Calibration Check (B447246-CCV2)				Prepared & Analyzed: 10/30/24					
Fluoride	0.672	mg/L		0.7000		96	90-110		
Matrix Spike (B447246-MS1)	**Sample: HJ03764-09**			Prepared & Analyzed: 10/30/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B447246-MS1)	**Sample: HJ03764-09**			Prepared & Analyzed: 10/30/24					
Fluoride	1.06	mg/L		1.000	ND	106	80-120		
Matrix Spike Dup (B447246-MSD1)	**Sample: HJ03764-09**			Prepared & Analyzed: 10/30/24					
Fluoride	1.08	mg/L		1.000	ND	108	80-120	2	20
Batch B447292 - SW 3015 - EPA 6010B									
Blank (B447292-BLK1)				Prepared: 10/31/24 Analyzed: 11/05/24					
Lithium	< 0.020	mg/L							
LCS (B447292-BS1)				Prepared: 10/31/24 Analyzed: 11/05/24					
Lithium	0.531	mg/L		0.5556		96	80-120		
Matrix Spike (B447292-MS1)	**Sample: HJ04816-07**			Prepared: 10/31/24 Analyzed: 11/05/24					
Lithium	0.536	mg/L		0.5556	ND	96	75-125		
Matrix Spike Dup (B447292-MSD1)	**Sample: HJ04816-07**			Prepared: 10/31/24 Analyzed: 11/05/24					
Lithium	0.536	mg/L		0.5556	ND	97	75-125	0.1	20
Batch B447292 - SW 3015 - EPA 6020A									
Blank (B447292-BLK1)				Prepared: 10/31/24 Analyzed: 11/01/24					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B447292-BS1)				Prepared: 10/31/24 Analyzed: 11/01/24					
Antimony	522	ug/L		555.6		94	80-120		
Arsenic	527	ug/L		555.6		95	80-120		
Barium	524	ug/L		555.6		94	80-120		
Beryllium	544	ug/L		555.6		98	80-120		
Boron	544	ug/L		555.6		98	80-120		
Cadmium	525	ug/L		555.6		94	80-120		
Calcium	5.55	mg/L		5.556		100	80-120		
Chromium	546	ug/L		555.6		98	80-120		
Cobalt	544	ug/L		555.6		98	80-120		
Lead	548	ug/L		555.6		99	80-120		
Magnesium	5.90	mg/L		5.556		106	80-120		
Mercury	51.2	ug/L		55.56		92	80-120		
Molybdenum	489	ug/L		555.6		88	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B447292-BS1)				Prepared: 10/31/24 Analyzed: 11/01/24					
Potassium	5.71	mg/L		5.556		103	80-120		
Selenium	531	ug/L		555.6		96	80-120		
Sodium	5.72	mg/L		5.556		103	80-120		
Thallium	531	ug/L		555.6		96	80-120		
Matrix Spike (B447292-MS1)	**Sample: HJ04816-07**			Prepared: 10/31/24 Analyzed: 11/01/24					
Antimony	514	ug/L		555.6	ND	92	75-125		
Arsenic	534	ug/L		555.6	4.98	95	75-125		
Barium	639	ug/L		555.6	115	94	75-125		
Beryllium	550	ug/L		555.6	ND	99	75-125		
Boron	561	ug/L		555.6	11.4	99	75-125		
Cadmium	528	ug/L		555.6	ND	95	75-125		
Calcium	100	mg/L		5.556	95.9	77	75-125		
Chromium	547	ug/L		555.6	ND	98	75-125		
Cobalt	536	ug/L		555.6	0.583	96	75-125		
Lead	552	ug/L		555.6	5.83	98	75-125		
Mercury	51.5	ug/L		55.56	ND	93	75-125		
Molybdenum	502	ug/L		555.6	3.17	90	75-125		
Potassium	6.21	mg/L		5.556	0.638	100	75-125		
Selenium	530	ug/L		555.6	ND	95	75-125		
Sodium	13.1	mg/L		5.556	7.50	100	75-125		
Thallium	534	ug/L		555.6	ND	96	75-125		
Matrix Spike Dup (B447292-MSD1)	**Sample: HJ04816-07**			Prepared: 10/31/24 Analyzed: 11/01/24					
Antimony	514	ug/L		555.6	ND	93	75-125	0.1	20
Arsenic	535	ug/L		555.6	4.98	95	75-125	0.2	20
Barium	637	ug/L		555.6	115	94	75-125	0.4	20
Beryllium	556	ug/L		555.6	ND	100	75-125	1	20
Boron	564	ug/L		555.6	11.4	99	75-125	0.5	20
Cadmium	533	ug/L		555.6	ND	96	75-125	0.9	20
Calcium	101	mg/L		5.556	95.9	91	75-125	0.8	20
Chromium	550	ug/L		555.6	ND	99	75-125	0.6	20
Cobalt	537	ug/L		555.6	0.583	97	75-125	0.2	20
Lead	555	ug/L		555.6	5.83	99	75-125	0.5	20
Mercury	51.8	ug/L		55.56	ND	93	75-125	0.5	20
Molybdenum	509	ug/L		555.6	3.17	91	75-125	1	20
Potassium	6.29	mg/L		5.556	0.638	102	75-125	1	20
Selenium	529	ug/L		555.6	ND	95	75-125	0.07	20
Sodium	13.2	mg/L		5.556	7.50	102	75-125	0.7	20
Thallium	542	ug/L		555.6	ND	98	75-125	1	20
Batch B447304 - No Prep - SM 2540 C-2011									
Blank (B447304-BLK1)				Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B447304-BS1)				Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	913	mg/L		1000		91	84.4-107		
Duplicate (B447304-DUP1)	**Sample: HJ04816-01**			Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	875	mg/L	M		925			6	5
Duplicate (B447304-DUP2)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B447304-DUP2)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	375	mg/L			365			3	5
Batch B447305 - No Prep - SM 2540 C-2011									
Blank (B447305-BLK1)				Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B447305-BS1)				Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	907	mg/L		1000		91	84.4-107		
Duplicate (B447305-DUP1)	**Sample: HJ04816-18**			Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	840	mg/L			875			4	5
Duplicate (B447305-DUP2)	**Sample: HJ04816-19**			Prepared & Analyzed: 10/31/24					
Solids - total dissolved solids (TDS)	7880	mg/L			7800			1	5
Batch B447311 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447311-CCB1)				Prepared & Analyzed: 10/30/24					
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B447311-CCV1)				Prepared & Analyzed: 10/30/24					
Fluoride	5.14	mg/L		5.000		103	90-110		
Sulfate	4.89	mg/L		5.000		98	90-110		
Chloride	5.07	mg/L		5.000		101	90-110		
Matrix Spike (B447311-MS1)	**Sample: HJ04540-08**			Prepared & Analyzed: 10/30/24					
Sulfate	1.00E9	mg/L	Q4	1.500	13.3	NR	80-120		
Chloride	5.5	mg/L		1.500	3.8	110	80-120		
Fluoride	1.76	mg/L		1.500	ND	117	80-120		
Matrix Spike (B447311-MS2)	**Sample: HJ04540-09**			Prepared & Analyzed: 10/30/24					
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Fluoride	1.73	mg/L		1.500	ND	115	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	12.5	NR	80-120		
Matrix Spike (B447311-MS3)	**Sample: HJ04540-10**			Prepared & Analyzed: 10/30/24					
Fluoride	1.77	mg/L		1.500	0.173	106	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	137	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120		
Matrix Spike Dup (B447311-MSD1)	**Sample: HJ04540-08**			Prepared & Analyzed: 10/30/24					
Fluoride	1.78	mg/L		1.500	ND	118	80-120	1	20
Chloride	5.5	mg/L		1.500	3.8	110	80-120	0.04	20
Sulfate	1.00E9	mg/L	Q4	1.500	13.3	NR	80-120	0	20
Matrix Spike Dup (B447311-MSD2)	**Sample: HJ04540-09**			Prepared & Analyzed: 10/30/24					
Sulfate	1.00E9	mg/L	Q4	1.500	12.5	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Fluoride	1.73	mg/L		1.500	ND	115	80-120	0.09	20
Matrix Spike Dup (B447311-MSD3)	**Sample: HJ04540-10**			Prepared & Analyzed: 10/31/24					
Sulfate	1.00E9	mg/L	Q4	1.500	137	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	18	NR	80-120	0	20
Fluoride	1.80	mg/L		1.500	0.173	108	80-120	2	20
Batch B447440 - IC No Prep - EPA 300.0 REV 2.1									

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Blank (B447440-CCB1)				Prepared & Analyzed: 10/31/24					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B447440-CCV1)				Prepared & Analyzed: 10/31/24					
Sulfate	5.08	mg/L		5.000		102	90-110		
Fluoride	5.33	mg/L		5.000		107	90-110		
Chloride	5.20	mg/L		5.000		104	90-110		
Matrix Spike (B447440-MS1)	**Sample: HJ04816-01**			Prepared & Analyzed: 10/31/24					
Sulfate	< 1.0	mg/L	Q1	1.500	120	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	60	NR	80-120		
Matrix Spike (B447440-MS2)	**Sample: HJ04816-05**			Prepared & Analyzed: 10/31/24					
Sulfate	1.00E9	mg/L	Q4	1.500	169	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	39	NR	80-120		
Fluoride	1.78	mg/L		1.500	0.208	105	80-120		
Matrix Spike (B447440-MS3)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					
Fluoride	1.76	mg/L		1.500	0.177	105	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	13	NR	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	62.8	NR	80-120		
Matrix Spike Dup (B447440-MSD1)	**Sample: HJ04816-01**			Prepared & Analyzed: 10/31/24					
Sulfate	< 1.0	mg/L	Q2	1.500	120	NR	80-120		20
Chloride	1.0E9	mg/L	Q4	1.500	60	NR	80-120	0	20
Matrix Spike Dup (B447440-MSD2)	**Sample: HJ04816-05**			Prepared & Analyzed: 10/31/24					
Fluoride	1.79	mg/L		1.500	0.208	105	80-120	0.6	20
Sulfate	1.00E9	mg/L	Q4	1.500	169	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	39	NR	80-120	0	20
Matrix Spike Dup (B447440-MSD3)	**Sample: HJ04816-07**			Prepared & Analyzed: 10/31/24					
Chloride	1.0E9	mg/L	Q4	1.500	13	NR	80-120	0	20
Fluoride	1.75	mg/L		1.500	0.177	105	80-120	0.5	20
Sulfate	1.00E9	mg/L	Q4	1.500	62.8	NR	80-120	0	20
Batch B447497 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B447497-CCB1)				Prepared & Analyzed: 11/01/24					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B447497-CCV1)				Prepared & Analyzed: 11/01/24					
Chloride	5.13	mg/L		5.000		103	90-110		
Sulfate	5.02	mg/L		5.000		100	90-110		
Batch B447544 - SW 3015 - EPA 6010B									
Blank (B447544-BLK1)				Prepared: 11/04/24 Analyzed: 11/05/24					
Lithium	< 0.020	mg/L							
LCS (B447544-BS1)				Prepared: 11/04/24 Analyzed: 11/05/24					
Lithium	0.544	mg/L		0.5556		98	80-120		
Batch B447544 - SW 3015 - EPA 6020A									
Blank (B447544-BLK1)				Prepared & Analyzed: 11/04/24					
Antimony	< 3.0	ug/L							

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B447544-BLK1)				Prepared & Analyzed: 11/04/24					
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B447544-BS1)				Prepared & Analyzed: 11/04/24					
Antimony	495	ug/L		555.6		89	80-120		
Arsenic	510	ug/L		555.6		92	80-120		
Barium	513	ug/L		555.6		92	80-120		
Beryllium	555	ug/L		555.6		100	80-120		
Boron	558	ug/L		555.6		100	80-120		
Cadmium	537	ug/L		555.6		97	80-120		
Calcium	5.39	mg/L		5.556		97	80-120		
Chromium	556	ug/L		555.6		100	80-120		
Cobalt	554	ug/L		555.6		100	80-120		
Lead	553	ug/L		555.6		100	80-120		
Magnesium	5.83	mg/L		5.556		105	80-120		
Mercury	51.7	ug/L		55.56		93	80-120		
Molybdenum	473	ug/L		555.6		85	80-120		
Potassium	5.47	mg/L		5.556		98	80-120		
Selenium	512	ug/L		555.6		92	80-120		
Sodium	5.91	mg/L		5.556		106	80-120		
Thallium	542	ug/L		555.6		98	80-120		
Batch B447606 - No Prep - SM 2320 B-2011									
Duplicate (B447606-DUP1)	**Sample: HJ04540-01**			Prepared & Analyzed: 11/04/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	312	mg/L			325			4	10
Duplicate (B447606-DUP3)	**Sample: HJ04540-10**			Prepared & Analyzed: 11/04/24					
Alkalinity - bicarbonate as CaCO3	388	mg/L			400			3	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B447606-DUP4)	**Sample: HJ04816-01**			Prepared & Analyzed: 11/04/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	762	mg/L			738			3	10
Duplicate (B447606-DUP5)	**Sample: HJ04816-07**			Prepared & Analyzed: 11/04/24					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B447606-DUP5)	**Sample: HJ04816-07**			Prepared & Analyzed: 11/04/24					
Alkalinity - bicarbonate as CaCO3	325	mg/L			325			0	10
Batch B447749 - No Prep - SM 4500-F C-2011									
Calibration Blank (B447749-CCB1)				Prepared & Analyzed: 11/04/24					
Fluoride	0.0320	mg/L							
Calibration Blank (B447749-CCB2)				Prepared & Analyzed: 11/04/24					
Fluoride	0.0180	mg/L							
Calibration Check (B447749-CCV1)				Prepared & Analyzed: 11/04/24					
Fluoride	0.690	mg/L		0.7000		99	90-110		
Calibration Check (B447749-CCV2)				Prepared & Analyzed: 11/04/24					
Fluoride	0.688	mg/L		0.7000		98	90-110		
Matrix Spike (B447749-MS2)	**Sample: HJ04816-16**			Prepared & Analyzed: 11/04/24					
Fluoride	1.19	mg/L		1.000	0.203	98	80-120		
Matrix Spike Dup (B447749-MSD2)	**Sample: HJ04816-16**			Prepared & Analyzed: 11/04/24					
Fluoride	1.22	mg/L		1.000	0.203	102	80-120	3	20

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions and method modifications used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

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

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information

Company	Vistra Corp-Duck Creek
Address	17751 North Cilco Rd
	Canton, IL 61520
Email To	Brian.Voelker@VistraCorp.com
Phone	(217) 753-8911
Fax	
Requested Due Date/TAT	10 day

Section B Required Project Information

Report To	Brian Voelker
Copy To	Sam Davies samantha.davies@vistracorp.com
	Daryl Johnson Robert.Johnson@vistracorp.com
Purchase Order No	
Project Name	
Project Number	

Section C Invoice Information

Attention	Brian Voelker
Company Name	Vistra Corp
Address	see Section A
Quote Reference	
Project Manager	
Pace #	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OM 16S			10/15/24	1164		5	J		J																			
2	OM 16D				1266		1																						
3	OM 16S				1355																								
4	OM 16D				1443																								
5	OM 17S				1575		1																						
6	G53				1510		3																						
7	G53L				1417		3																						
8	G52L				1323		3																						
9	G50S				1119		4			L																			
10	JD ~~G50L~~ G12L				1545		5	J	J	J																			
11	RIIL				1451		1																						
12	R16L				1326																								
13	R16 Dup			↓	1326																								
14																													
15																													
16																													

Requested Analysis Filtered (Y/N)

IR Gun # 15 Correction Factor (Deg C) 0.0
Observed Temp (Deg C) 1.7 Corrected Temp (Deg C) 1.7
Delivery Method: FedEx UPS Walk-In Client

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/15/24	1657							
					10/15/24	1617	1.7	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jim Dunn

SIGNATURE of SAMPLER: Jim Dunn DATE Signed (MM/DD/YY): 10/15/24

HJ054493

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information

Company	Vistra Corp-Duck Creek
Address	17751 North Cilco Rd
	Canton, IL 61520
Email To	Brian.Voelker@VistraCorp.com
Phone	(217) 753-8911 Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information

Report To	Brian Voelker
Copy To	Sam Davies samantha.davies@vistracorp.com
	Daryl Johnson Robert.Johnson@vistracorp.com
Purchase Order No.	
Project Name	
Project Number	

Section C Invoice Information

Attention	Brian Voelker
Company Name	Vistra Corp
Address	see Section A
Quote Reference	
Project Manager	
Profile #	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	L02L	WT	G	10/16/24	1500		4	X	X	X		X																
2	L03L	WT	G	10/16/24	1359		5	X	X	X		X																
3	L13L	WT	G	10/16/24	1153		5	X	X	X		X																
4	OM16	WT	G	10/16/24	1054		4	X		X																		
5	OM17D	WT	G	10/16/24	1144		5	X		X																		
6	OM21	WT	G	10/16/24	1315		5	X		X																		
7	OM24D	WT	G	10/16/24	1420		5	X		X																		
8	OR02	WT	G	10/16/24	1513		5	X		X																		
9	G59S	WT	G	10/16/24	1521		3	X		X																		
10	G58S	WT	G	10/16/24	1440		3	X		X																		
11	G57S	WT	G	10/16/24	1350		4	X		X																		
12	G54S	WT	G	10/16/24	1251		4	X		X																		
13	G55S	WT	G	10/16/24	1155		3	X		X																		
14	G55L	WT	G	10/16/24	1112		3	X		X																		
15	G56S	WT	G	10/16/24	1030		3	X		X																		
16	OM17	WT	G	10/16/24	1225		1			X																		

IR Gun # 13 Correction Factor (Deg C) 0.7

Observed Temp (Deg C) 2.4 Corrected Temp (Deg C) 3.1

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/16/24	1640				—	X	N	Y
					10/16/24	1640				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/16/24

H)03764

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:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G70L	GW	G	10/17/24	1027		3	X		X																		
2	G71L	GW	G	10/17/24	1133		3	X		X																		
3	G67L	GW	G		1238		3	X		X																		
4	GC07S				1325		3	X		X																		
5	G71S				1415		3	X		X																		
6	G63S				1400		3	X		X																		
7	G61S				1310		3	X		X																		
8	G60S				1156		4	X		X																		
9	GC0L				1102		4	X		X																		
10	~~OM23D~~				~~1203~~		5	X		X																		
11	OM25S			10/17/24	1345		5	X		X																		
12	OR03D			10/17/24	1004 1238		5	X		X																		
13	~~OR04D~~			10/16/24	~~1450~~		5	X		X																		
14	~~OM19~~ OR04D				1116		5	X		X																		
15	OM23D				1395		5	X		X																		
16	GB02L				1500		1	X																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/17/24	1208		10/17/24	1603	2.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKI

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/24

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
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Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
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Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

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DRINKING WATER	DW
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WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	DM12	GW	G	10/17/24	1307		5	X		X																			
2	DM12D	"	"	"	1304		5	X		X																			
3	~~DM25~~				~~1420~~		5	X		X							on Pg 1				10/17/24								
4	EB #1				1430		5	X		X																				
	10/17/24 dcb																						dcb						FIELD FILTERED ONLY
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/17/24	1608		10/17/24	1609	2.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HJ043 00

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies: samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson: Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No.:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number:	Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9, /, -)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB, C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	ORIGD	GW	G	10/22/24	1440		5	X		X																		
2	PGO				1341	4	4	X		X																		
3	D37L				1208		3	X		X																		
4	D36L				1119		3	X		X																		
5	D36L DUPE DUP 10-22-24				1119		3	X		X																		
6	T46L	GW	G		1017		3	X		X																		
7	T45L				1043		3	X		X																		
8	T44L				1102		3	X		X																		
9	T43L				1132		3	X		X																		
10	T43L DUP 10-22-24				1132		3	X		X																		
11	G64L				1305		4	X		X																		
12	G64S				1440		4	X		X																		
13	G62L				1540		4	X		X																		
14																												
15																												
16																												

IR Gun # 17 Correction Factor (Deg C) -0.1

Observed Temp (Deg C) 0.7 Corrected Temp (Deg C) 0.6

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/22/24	1639							
					10/22/24	1639		X	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESEE

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/22/24

HJohsHO

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G16L	GW	G	10/23/24	1339		5	X	X	X		X																	
2	G065				1230		1	X																					
3	G025				1120		4	X		X																			
4	DR11				1348		5	X		X																			
5	DR20				1508		3	X		X																			
6	DR20 DUP				1508		5	X		X																			
7	PG0				0939		2	X																					
8	BA03				1345		4	X		X																			
9	BA02				1235		4	X		X																			
10	BA01				1135		4	X		X																			
11	BA01 DUP				1135		4	X		X																			
12	BA06				1459		4	X		X																			
13	RG1L			1152 +30 10/23/24			4	X		X																			
14																													
15																													
16																													

IR Gun # 16 Correction Factor (Deg C) +0.1

Observed Temp (Deg C) 3.0 Corrected Temp (Deg C) 3.1

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q4 Rev 0		10/23/24	1618				
					10/23/24	1618	

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	HALEB DESKE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 10/23/24		Y	N	Y

HJ048162/CD

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G54L	GW	G	10/24/24	1038		4	X		X																	
2	A52S				1201		3	X		X																	
3	G52S DUP				1201		3	X		X																	
4	~~G54L~~ MW																										
5	X301 Pump House				1414		3	X		X																	
6	BA04				1340		4	X		X																	
7	BA05				1215		4	X		X																	
8	G51S				1041		4	X		X																	
9	~~P36L~~ sample deleted			10/24/24	~~1048~~		1	X																			
10	GW6L				1503		4	X		X																	
11	FIELD BLANK				1530		8	X	X	X		X															
12	OR30				1259		5	X		X																	
13	OR33				1230		5	X		X																	
14	OR19				1122		5	X		X																	
15	~~EQUIPMENT BLANK~~ EB #2			10/24/24	1540		5	X		X																	
16	OMO7				0849		5	X		X																	

R Gun # 15 Correction Factor (Deg C) 0.0

Observed Temp (Deg C) 0.8 Corrected Temp (Deg C) 0.8

Delivery Method: FedEx UPS Walk-in USPS Other

Residual Chlorine (Y/N): limited to field temp

Project No./ Lab I.D.: AFTER XPWO2

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/24/24	1429							
				Caty P. Deske	10/24/24	1429	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKE

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HJ048116 CD

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OROGA	GW	G	10/24/24	0938		5	X		X																		
2	OM22D				1135		5	X		X																		
3	OM15D				1042		5	X		X																		
4	OM24				1245		4	X		X																		
5	OM27				1345		4	X		X																		
6	OM26				1423		4	X		X																		
7	XPW01				1528		5	X		X																		
8	OM01				1410		5	X		X																		
9	OM01 DUP			↓	1410		5	X		X																		
10																												
11																												
12																												
13																												
14																												
15																												
16																												

IR Gun # 15 Correction Factor (Deg C) 0.0

Observed Temp (Deg C) 0.8 Corrected Temp (Deg C) 0.8

Delivery Method: FedEx UPS Walk-in USPS Other field team

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/24/24	1629	Caity P. Deake	10/24/24	1629	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DEAKE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/24/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
BA01C	DC_BA01!C	10/14/24	1250	16.47		AP
BA01L	DC_BA01!L	10/14/24	1248	17.24		AP
G02BS	DC_G02*BS	10/14/24	1444	18.21		JD
G02D	DC_G02&D	10/14/24	1445	24.54		JD
G02L	DC_G02!L	10/14/24	1447	16.47		JD
G03L	DC_G03!L	10/14/24	1451	14.06		JD
G03S	DC_G03#S	10/14/24	1452	13.71		JD
G04L	DC_G04!L	10/14/24	1443	16.70		JB
G04S	DC_G04#S	10/14/24	1445	20.80		JB
G06L	DC_G06!L	10/14/24	0936	22.96		JB
G06S	DC_G06#S	10/14/24	0931	23.34	Was not locked	JB
G07L	DC_G07!L	10/14/24	0923	22.14		JB
G08L	DC_G08!L	10/14/24	0944	21.63		JB
G09L	DC_G09!L	10/14/24	0955	21.97		JB
G09S	DC_G09#S	10/14/24	0958	21.98		JB
G12L	DC_G12!L	10/14/24	1050	22.51		JB
G12S	DC_G12#S	10/14/24	1056	24.23		JB
G14L	DC_G14!L	10/14/24	1038	25.89		JB
G15L	DC_G15!L	10/14/24	1228	32.80		JB
G15S	DC_G15#S	10/14/24	1229	33.15		JB
G16L	DC_G16!L	10/14/24	1240	31.20		JB
G50L	DC_G50!L	10/14/24	1535	Dry		KMD
G51L	DC_G51!L	10/14/24	1417	19.40		KMD
G52L	DC_G52!L	10/14/24	1430	27.20		KMD
G52S	DC_G52#S	10/14/24	1428	31.58		KMD
G53L	DC_G53!L	10/14/24	1330	16.75		KMD
G53S	DC_G53#S	10/14/24	1329	18.24		KMD
G54C	DC_G54!C	10/14/24	1515	36.78		KMD
G55L	DC_G55!L	10/14/24	1505	22.30		KMD
G55S	DC_G55#S	10/14/24	1504	22.24		KMD
G56L	DC_G56!L	10/14/24	1253	21.82		KMD
G56S	DC_G56#S	10/14/24	1252	22.44		KMD
G57L	DC_G57!L	10/14/24	1246	24.32		KMD
G58L	DC_G58!L	10/14/24	1237	27.65		KMD
G58S	DC_G58#S	10/14/24	1236	27.80		KMD
G59L	DC_G59!L	10/14/24	1218	26.73		KMD
G59S	DC_G59#S	10/14/24	1216	34.20		KMD
G61S	DC_G61#S	10/14/24	1204	23.64		KMD
G62L	DC_G62!L	10/14/24	1136	23.65		KMD

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G63L	DC_G63!L	10/14/24	1129	24.64		
G63S	DC_G63#S	10/14/24	1132	25.60		
G65L	DC_G65!L	10/14/24	1102	20.92		
G65S	DC_G65#S	10/14/24	1101	21.22		
G66L	DC_G66!L	10/14/24	1046	19.55		
G66S	DC_G66#S	10/14/24	1045	20.12		
G67L	DC_G67!L	10/14/24	1052	16.74		
G67S	DC_G67#S	10/14/24	1053	17.64		
G68L	DC_G68!L	10/14/24	1447	15.58		
G68S	DC_G68#S	10/14/24	1446	16.66		
G69L	DC_G69!L	10/14/24	1437	17.87		
G69S	DC_G69#S	10/14/24	1440	20.66		
G70L	DC_G70!L	10/14/24	1015	21.38		
G71L	DC_G71!L	10/14/24	1020	26.80		
G71S	DC_G71#S	10/14/24	1018	27.44		
G72L	DC_G72!L	10/14/24	1030	26.49		
G73L	DC_G73!L	10/14/24	1514	27.79		JD
L103	DC_L103	10/14/24	1519	2.18		
OM05S	DC_OM05#S	10/14/24	1341	21.93		
OM08	DC_OM08	10/14/24	1254	13.88		JD
OM09	DC_OM09	10/14/24	1056	4.56		JD
OM10	DC_OM10	10/14/24	1208	14.35		JD
OM100D	DC_OM100&D	10/14/24	1146	14.15		JD
OM100S	DC_OM100#S	10/14/24	1145	14.33		JD
OM101D	DC_OM101&D	10/14/24	1014	19.23		
OM101S	DC_OM101#S	10/14/24	1013	18.59		
OM12D	DC_OM12&D	10/14/24	1248	18.00		JD
OM15	DC_OM15	10/14/24	1139	22.63		JD
OM15D	DC_OM15&D	10/14/24	1138	25.71		JD
OM17D	DC_OM17&D	10/14/24	1202	19.25		JD
OM22S	DC_OM22#S	10/14/24	1048	20.14		JD
OM23S	DC_OM23#S	10/14/24	1031	42.76		JD
OM25D	DC_OM25&D	10/14/24	1021	58.62		JD
OM26	DC_OM26	10/14/24	1113	32.40		JD
OM27	DC_OM27	10/14/24	1107	33.57		JD
OM28	DC_OM28	10/14/24	1103	47.98		JD
OR03S	DC_OR03#S	10/14/24	1320	45.89		JD
OR05D	DC_OR05&D	10/14/24	1339	23.10		
OR14S	DC_OR14#5	10/14/24	1343	8.56		JD

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
OR18	DC_OR18	10/14/24	1130	19.39		JD
P01I	DC_P01$I	10/14/24	1520	16.41		JB
P01L	DC_P01!L	10/14/24	1524	17.09		JB
P01S	DC_P01#S	10/14/24	1522	16.74		JB
P02S	DC_P02#S	10/14/24	1444	18.21	same as 602BS	JD
P04S	DC_P04#S	10/14/24	1445	20.80	Same as 604S	JB
P05D	DC_P05&D	10/14/24	1430	7.63		JB
P05L	DC_P05!L	10/14/24	1432	7.45		JB
P05S	DC_P05#S	10/14/24	1428	7.35		JB
P36D	DC_P36&D	10/14/24	1207	12.79		JB
P36L	DC_P36!L	10/14/24	1206	12.45		JB
P36S	DC_P36#S	10/14/24	1204	12.57		JB
P37D	DC_P37&D	10/14/24	1108	16.71		JB
P37L	DC_P37!L	10/14/24	1115	Dry	Top of pump	JB
P38L	DC_P38!L	10/14/24	1215	19.49		JB
P38S	DC_P38#S	10/14/24	1217	19.64		JB
P39D	DC_P39&D	10/14/24	1339	14.85		JB
P39L	DC_P39!L	10/14/24	1341	9.73		JB
P39S	DC_P39#S	10/14/24	1338	9.95		JB
P40L	DC_P40!L	10/14/24	1405	17.14		JB
P40S	DC_P40#S	10/14/24	1403	16.30		JB
P41D	DC_P41&D	10/14/24	1454	35.68		APP
P41I1	DC_P41$I1	10/14/24	1453	13.58		APP
P41I2	DC_P41%I2	10/14/24	1451	35.90		APP
P41L	DC_P41!L	10/14/24	1457	11.67		APP
P41S	DC_P41#S	10/14/24	1456	13.29		APP
P42D	DC_P42&D	10/14/24	1457	24.14		JD
P42I1	DC_P42$I1	10/14/24	1459	11.56		KMD
P42I2	DC_P42%I2	10/14/24	1458	33.48		KMD
P42L	DC_P42!L	10/14/24	1501	10.65		KMD
P42S	DC_P42#S	10/14/24	1500	11.14		KMD
P52	DC_P52	10/14/24	1519	17.81		JD
P57L	DC_P57!L	10/14/24	1420	18.71		JD
P57S	DC_P57#S	10/14/24	1418	18.39		JD
P60	DC_P60	10/14/24	1809	25.00		KMD
P61	DC_P61	10/14/24	1347	16.44		KMD
P62	DC_P62	10/14/24	1119	14.62		KMD
P63	DC_P63	10/14/24	1124	15.85		KMD
P64	DC_P64	10/14/24	1355	17.60		KMD

SAR-3: Plant Sampling and Analysis Request

Event: DC-24Q4

Date Generated: 09/16/2024

All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
R10L	DC_R10!L	10/14/24	1005	23.02	Not marked	JB
R11L	DC_R11!L	10/14/24	1009	22.24		JB
R13L	DC_R13!L	10/14/24	1022	23.17		JB
R61L	DC_R61!L	10/14/24	1202	22.97		KMD
R72S	DC_R72#S	10/14/24	1027	26.66		JB
T43L	DC_T43!L	10/14/24	1127	8.09		JB
T44L	DC_T44!L	10/14/24	1132	12.24		JB
T45L	DC_T45!L	10/14/24	1152	11.23		JB
T46L	DC_T46!L	10/14/24	1158	8.36		JB
X301	DC_X301_leachate	10/14/24	1530	NR		APP

SAR-4: Plant Sampling and Analysis Request
Event: DC-24Q4
Date Generated: 09/16/2024
All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Serial Number	Does Data Logger Serial No Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)	Comments	Initials
BA01	DC_BA01	10/14/24	1245	17.05	21615533	yes	570.4207	yes	M		App
BA02	DC_BA02	10/14/24	1301	12.66	21615636	yes	567.5209	yes	H		App
BA02L	DC_BA02!L	10/14/24	1257	12.42	21615682	yes	567.6332	yes	H		App
BA03	DC_BA03	10/14/24	1056	12.50	21615637	yes	566.1495	yes	M		App
BA03L	DC_BA03!L	10/14/24	1211	7.55	21615687	yes	0.0017	NO	R	replaced Battaries no data no Jounal	App
BA04	DC_BA04	10/14/24	1040	8.33	21615631	yes	570.0896	yes	M		App
BA05	DC_BA05#	10/14/24	1237	22.42	21615540	yes	573.5125	yes	M		App
BA06	DC_BA06	10/14/24	1229	23.95	21615525	yes	572.0574	yes	M		App
G02S	DC_G02#S	10/14/24	1442	14.06	21615554	yes	607.8053	yes	H		JD
G50S	DC_G50#S	10/14/24	1533	18.89	21615535	yes	604.8652	yes	H		KMD
G51S	DC_G51#S	10/14/24	1419	18.83	21615691	yes	595.6650	yes	H		KMD
G54L	DC_G54!L	10/14/24	1003	25.54	21615690	yes	598.1588	yes	H		KMD
G54S	DC_G54#S	10/14/24	1002	24.72	21615684	yes	597.5105	yes	H		KMD
G57S	DC_G57#S	10/14/24	1245	24.02	21615683	yes	598.5564	yes	H		KMD
G60L	DC_G60!L	10/14/24	1308	17.72	21615678	yes	596.5620	yes	H		KMD
G60S	DC_G60#S	10/14/24	1306	25.54	21615677	yes	584.3562	yes	H		KMD
G64L	DC_G64!L	10/14/24	1320	23.86	21615688	yes	598.4718	yes	H		KMD
G64S	DC_G64#S	10/14/24	1322	25.06	21615632	yes	598.0279	yes	M		KMD
OM01	DC_OM01	10/14/24	1307	12.38	21615685	yes	582.8997	yes	H		JD
OM04S	DC_OM04#S	10/14/24	1329	20.70	21615542	yes	586.5418	yes	M		JD
OM07	DC_OM07	10/14/24	1309	12.43	21921676	yes	584.3670	yes	H		App
OM12	DC_OM12	10/14/24	1359	17.07	21926670	yes	578.6861	yes	H		JD
OM16	DC_OM16	10/14/24	1155	27.62	21615539	yes	581.4107	yes	H		JD
OM17	DC_OM17	10/14/24	1201	14.89	21615693	yes	576.9035	yes	L		JD
OM21	DC_OM21	10/14/24	1335	12.13	21615593	yes	594.2720	yes	H		JD
OM22D	DC_OM22&D	10/14/24	1046	19.88	21615592	yes	579.2247	yes	H		JD
OM23D	DC_OM23&D	10/14/24	1029	38.79	21615591	yes	574.5273	yes	H		JD
OM24D	DC_OM24&D	10/14/24	1011	5.83	21615522	yes	571.1287	yes	H		JD
OM25S	DC_OM25#S	10/14/24	1018	58.63	21615681	yes	570.5934	yes	H		JD

SAR-4: Plant Sampling and Analysis Request
Event: DC-24Q4
Date Generated: 09/16/2024
All episodic water levels on SAR-3 and SAR-4 must be collected within a 24 hour period.

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Serial Number	Does Data Logger Serial No Match?	WL Reading on Transducer (ft)	Data downloaded?	Batt (H/M/L/R)	Comments	Initials
OR02	DC_OR02	10/14/24	1313	8.24	21615679	yes	593.0969	yes	H		JD
OR03D	DC_OR03&D	10/14/24	1318	45.37	21615577	yes	582.5450	yes	H		JD
OR04D	DC_OR04&D	10/14/24	1328	21.84	21615570	yes	585.8407	yes	H		JD
OR06A	DC_OR06!A	10/14/24	1314	15.09	21615692	yes	580.3470	yes	M		AG
OR11	DC_OR11	10/14/24	1232	32.20	21615686	yes	564.1113	yes	M		JD
OR13D	DC_OR13&D	10/14/24	1414	14.60	21564135	yes	587.9433	yes	M		AG
OR13S	DC_OR13#S	10/14/24	1412	14.72	21615676	yes	587.8021	yes	H		AG
OR14D	DC_OR14&D	10/14/24	1340	11.98	21615611	yes	587.1092	yes	H		JD
OR19	DC_OR19	10/14/24	1244	23.98	21615634	yes	574.8343	yes	H		JD
OR20	DC_OR20	10/14/24	1226	22.36	21615610	yes	595.2091	yes	H		JD
RG01	DC_RG01	10/14/24	0930	dry	21628685	yes	–	yes	–		AG

Duck Creek

WELL/SAMPLE POINT BA06 **Purge Method:** BLADDER

Date: 10/23/24 Start Time: 1351 Last Quarter: Dedicated Bladder Finish/Sample Time: 1459

Well Depth (Bottom) From MP: — ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 24.11 ft Total Purge Volume: 16000 mL

Water Column Length: — ft

Well Water Volume: — L Total Drawdown: 4.81 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	1413	26.55	100	7.31	2760	15.29	17	0.0	28.5
2	1416	26.87	100	7.24	2750	15.19	13	0.0	27.6
3	1419	27.24	100	7.26	2750	15.20	10	0.0	24.9
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Check pH if reading is below 6.9 or above 7.7

Secondary pH Meter: —

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
1	General (P,1000mL)
	General (P, 500 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(4)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)
	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 28.92 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM01 **Purge Method:** Peristaltic Pump

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/24/24 Start Time: 1330 Finish/Sample Time: 1410

Well Depth (Bottom) From MP: 27.62 ft

Depth to Water From MP: ~~15.64~~ ft 15.69

Water Column Length: ~~11.93~~ ft 11.93

Well Water Volume: ~~9.04~~ L 7.25

10/24 JB

Min. Purge Volume: 1000 mL

Total Purge Volume: 1000 mL

Total Drawdown: 7.21 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	1334	15.86	500	7.00	3330	15.52	-13	0.00	0.0
2	1335	15.89	500	7.03	3330	15.52	-15	0.00	0.0
3	1336	15.94	500	7.06	3340	15.56	-19	0.00	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ● None ☐ Slight ☐ Mod. ☐ Strong

Color ● None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ● Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1+1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1+1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1+1	Rad (P, 2.5L, HNO3)

5 + 5

Filtered	
Qty	Bottles
1+1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1+1	General (P,1000mL)
	TOC (A,V 40mL, H2SO4)

Final DTW: 22.90 ft

Comments ~~Dup~~, Dupe Collected Here

AP

Sampler's Signature: JBohannan

WELL/SAMPLE POINT OM04S **Purge Method:** Dedicated peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/15/24 Start Time: 1447 Finish/Sample Time: 1545

Well Depth (Bottom) From MP:	35.85 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	20.80 ft	Total Purge Volume:	1400 mL
Water Column Length:	15.05 ft		
Well Water Volume:	9.11 L	Total Drawdown:	6.80 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	1457	23.50	100	6.74	1246.5	13.14	-27.6	0.55	135.96
2	1459	23.75	100	6.74	1243.0	13.15	-26.9	0.53	120.90
3	1501	24.01	100	6.74	1238.6	13.17	-26.2	0.51	109.72
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 27.60 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM07 **Purge Method:** Peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/24/24 Start Time: 0804 Finish/Sample Time: 0849

Well Depth (Bottom) From MP: 29.97 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 12.62 ft Total Purge Volume: 2000 mL

Water Column Length: 17.35 ft

Well Water Volume: 10.51 L Total Drawdown: 0.14 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	0813	12.72	200	6.80	1146.8	13.08	-92.3	0.02	1.19
2	0814	12.72	200	6.79	1288.4	13.02	-91.7	0.02	0.55
3	0815	12.72	200	6.78	1300.5	12.94	-89.0	0.01	0.75
4	0816	12.72	200	6.78	1276.1	12.90	-88.7	0.02	0.00
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 12.76 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM12 **Purge Method:** Dedicated Peristaltic Tubing

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/17/2024 Start Time: 1205 Finish/Sample Time: 1307

Well Depth (Bottom) From MP:	43.01 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	17.33 ft	Total Purge Volume:	1600 mL
Water Column Length:	25.68 ft		
Well Water Volume:	15.53 L	Total Drawdown:	0.09 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		ft.	mL/min	s.u.	umhos/cm	deg C	mV	mg/L	NTU
1	1230	17.43	200	6.56	2260	16.64	-84	2.49	0.0
2	1232	17.47	200	6.55	2250	16.61	-85	2.34	0.0
3	1234	17.47	200	6.55	2250	16.58	-85	2.31	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P,250mL H2SO4)
1	Rad (P, 2.5L, HNO3)

(5)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2SO4)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 17.42 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM16 **Purge Method:** Dedicated peristaltic

Last Qaurter: Dedicated Peristaltic Tubing

Date: 10/16/24 Start Time: 0958 Finish/Sample Time: 1054

Well Depth (Bottom) From MP: 43.67 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 27.88 ft Total Purge Volume: 1600 mL

Water Column Length: 15.79 ft

Well Water Volume: 9.56 L Total Drawdown: 1.35 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	1011	28.76	100	6.23	4668.3	11.79	100.4	0.69	49.28
2	1013	28.81	100	6.26	4612.3	11.79	105.6	0.67	20.38
3	1015	28.86	100	6.27	4624.8	11.82	99.3	0.71	31.65
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,~~1000~~mL) 500mL
	TOC (A,V, 40mL, H2SO4)

Final DTW: 29.23 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM17 **Purge Method:** Dedicated peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/16/24 Start Time: 1148 Finish/Sample Time: 1225

AP

Well Depth (Bottom) From MP: 17.25 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 14.97 ft Total Purge Volume: 1600 mL

Water Column Length: 2.28 ft

Well Water Volume: 1.38 L Total Drawdown: 2.28 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1159	15.71	100	6.55	835.62	14.60	-88.6	1.58	59.80
2	1201	15.85	100	6.52	836.91	14.56	-79.6	1.66	29.78
3	1204	15.97	100	6.54	854.90	14.54	-73.8	1.58	12.99
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquarell 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
0	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
0	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
0	General (P, ~~1000~~mL) 500mL
	TOC (A,V, 40mL, H2SO4)

Final DTW: 17.25 ft

Comments 12:25 Filled metals and 1/2 Rad, ran out of water

10/17/24 09:51, DTW = 16.69, not enough water to fill remaining bottles

10/23/24 10:13 DTW: 16.48, not enough water

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM21 **Purge Method:** Dedicated peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/16/24 Start Time: 1237 Finish/Sample Time: 1315

Well Depth (Bottom) From MP: 60.49 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 12.40 ft Total Purge Volume: 1800 mL

Water Column Length: 48.09 ft

Well Water Volume: 29.12 L Total Drawdown: 0.18 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	1243	12.50	200	6.83	3413.2	13.38	-81.6	0.55	72.01
2	1244	12.51	200	6.83	3430.0	13.35	-79.5	0.51	66.75
3	1246	12.52	200	6.84	3425.8	13.31	-76.8	0.46	66.86
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 12.58 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM22D **Purge Method:** Portable pump

Last Quarter: Portable Pump with Dedicated Tubing

Date: 10/24/24 Start Time: 1059 Finish/Sample Time: 1135

Well Depth (Bottom) From MP: 65.17 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 20.12 ft Total Purge Volume: 2000 mL

Water Column Length: 45.05 ft

Well Water Volume: 2728 L Total Drawdown: 0.06 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	1106	20.17	200	6.72	4714.5	13.22	-100.6	0.99	378.17
2	1107	20.17	200	6.71	4751.2	13.25	-103.1	0.96	330.65
3	1108	20.17	200	6.71	4777.4	13.27	-105.3	0.94	311.91
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☐ None ☑ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 20.18 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM23D **Purge Method:** Portable pump

Last Quarter: Portable Pump with Dedicated Tubing

Date: 10/17/24 Start Time: 1238 Finish/Sample Time: 1325

Well Depth (Bottom) From MP: 82.95 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 38.92 ft Total Purge Volume: 3600 mL

Water Column Length: 44.03 ft

Well Water Volume: 26.66 L Total Drawdown: 0.40 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	1253	39.52	200	6.65	1798.2	14.90	-65.8	0.21	323.89
2	1254	39.51	200	6.64	1798.0	14.93	-66.7	0.54	301.43
3	1255	39.50	200	6.64	1797.0	14.95	-67.9	0.51	284.70
4	1256	39.50	200	6.64	1797.2	14.99	-68.8	0.50	266.53
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 39.32 ft

Comments

Sampler's Signature:

WELL/SAMPLE POINT OM24D **Purge Method:** Dedicated peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/16/24 Start Time: 1342 Finish/Sample Time: 1420

Well Depth (Bottom) From MP: 20.14 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 5.89 ft Total Purge Volume: 1700 mL

Water Column Length: 14.25 ft

Well Water Volume: 8.63 L Total Drawdown: 0.02 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	1349	5.91	200	6.57	3243.1	15.63	-38.4	0.15	22.83
2	1351	5.91	200	6.58	3236.7	15.68	-38.9	0.15	32.14
3	1352	5.91	200	6.57	3228.8	15.70	-39.1	0.16	40.34
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P,250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 5.91 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OM25S **Purge Method:** Portable pump

Last Quarter: Portable Pump with Dedicated Tubing

Date: 10/17/24 Start Time: 1336 Finish/Sample Time: 1420

Well Depth (Bottom) From MP: 64.03 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 58.71 ft Total Purge Volume: 3500 mL

Water Column Length: 5.32 ft

Well Water Volume: 3.22 L Total Drawdown: 1.53 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	1351	60.45	200	6.48	3702.1	16.35	-20.2	1.11	269.87
2	1352	60.46	200	6.48	3725.0	16.32	-18.5	1.10	290.83
3	1353	60.47	200	6.48	3767.1	16.28	-17.2	1.09	280.12
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 60.24 ft

Comments Filled EB after this well

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR02 **Purge Method:** Dedicated peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/16/24 Start Time: 1437 Finish/Sample Time: 1513

Well Depth (Bottom) From MP: 22.52 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 8.33 ft Total Purge Volume: 1700 mL

Water Column Length: 14.19 ft

Well Water Volume: 8.59 L Total Drawdown: 0.08 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	1444	8.37	200	6.61	911.8	15.02	-25.4	0.38	75.37
2	1445	8.37	200	6.61	1919.3	15.04	-24.6	0.33	82.01
3	1446	8.37	200	6.61	1934.8	14.98	-23.8	0.33	98.75
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A, V, 40mL, H2SO4)

Final DTW: 8.41 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR03D **Purge Method:** Portable pump

Last Quarter: Portable Pump with Dedicated Tubing

Date: 10/17/24 Start Time: 1140 Finish/Sample Time: 1228

Well Depth (Bottom) From MP: 77.75 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 45.36 ft Total Purge Volume: 3000 mL

Water Column Length: 32.39 ft

Well Water Volume: 19.62 L Total Drawdown: 0.18 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	1153	45.44	200	6.46	5190.5	14.84	-8.0	0.69	71000
2	1154	45.44	200	6.47	5235.0	14.88	-9.2	0.65	71000
3	1155	45.44	200	6.46	5249.0	14.91	-10.2	0.61	71000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☑ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☑ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P,250 mL, H2SO4)
	Rad (P, 2.5L, HNO3)

Filtered Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 45.54 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR04D **Purge Method:** Portable pump

Last Quarter: Portable Pump with Dedicated Tubing

Date: 10/17/24 Start Time: 1033 Finish/Sample Time: 1116

Well Depth (Bottom) From MP: 68.07 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 21.99 ft Total Purge Volume: 2500 mL

Water Column Length: 46.08 ft

Well Water Volume: 27.91 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	1043	21.99	200	6.33	6910.8	14.13	-31.2	2.30	700.95
2	1048	21.99	200	6.31	6332.7	13.98	-32.7	1.08	481.91
3	1049	21.99	200	6.31	6256.7	13.94	-32.4	1.04	507.97
4	1050	21.99	200	6.32	6197.8	13.93	-30.5	1.01	434.69
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 21.99 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR06A **Purge Method:** Peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/24/24 Start Time: 0900 Finish/Sample Time: 0938

Well Depth (Bottom) From MP: 26.05 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 15.19 ft Total Purge Volume: 1800 mL

Water Column Length: 6.86 ft

Well Water Volume: 6.58 L Total Drawdown: 0.03 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	0908	15.21	200	6.79	3112.4	14.16	-67.2	2.72	107.96
2	0909	15.21	200	6.78	3084.6	14.17	-63.8	2.68	64.19
3	0910	15.21	200	6.79	3082.5	14.10	-60.9	2.64	47.71
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250 mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 15.22 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR11 **Purge Method:** Peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/23/24 Start Time: 1120 Finish/Sample Time: 1348

Well Depth (Bottom) From MP: 40.57 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 32.29 ft Total Purge Volume: 1000 mL

Water Column Length: 8.28 ft

Well Water Volume: 5.01 L Total Drawdown: 0.04 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1149	32.33	100	7.21	1341.9	13.55	-52.4	1.98	358.19
2	1150	32.33	100	7.19	1339.5	13.51	-54.0	1.96	255.80
3	1151	32.33	100	7.18	1333.8	13.47	-52.9	1.95	223.18
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	/	
Casing locked/secure	/	
Well cap fits securely.	/	
Good seal/drainage	/	
Well has weep holes		/

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

(5)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 32.33 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR13D **Purge Method:** Peristaltic Pump

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/24/24 Start Time: 1237 Finish/Sample Time: 1259

Well Depth (Bottom) From MP:	50.17 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	14.79 ft	Total Purge Volume:	1000 mL
Water Column Length:	35.38 ft		
Well Water Volume:	21.43 L	Total Drawdown:	0.18 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	1243	14.87	500	6.25	1750	14.75	-27	0.00	0.0
2	1244	14.88	500	6.25	1750	14.71	-27	0.00	0.0
3	1245	14.89	500	6.25	1750	14.70	-27	0.00	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ■ None ☐ Slight ☐ Mod. ☐ Strong

Color ■ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ■ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 14.97 ft

Comments

Sampler's Signature:

For Jordan Bohannon

AP

Duck Creek

WELL/SAMPLE POINT OR13S **Purge Method:** Peristaltic Pump

Date: 10/24/24 Start Time: 1205 Last Quarter: Dedicated Peristaltic Tubing Finish/Sample Time: 1230

Well Depth (Bottom) From MP: 29.53 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 14.96 ft Total Purge Volume: 1000 mL

Water Column Length: 14.57 ft

Well Water Volume: 8.82 L Total Drawdown: 0.12 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	1212	15.07	500	6.27	1880	16.06	-24	0.00	0.0
2	1213	15.07	500	6.26	1900	16.02	-27	0.00	0.0
3	1214	15.07	500	6.26	1920	15.98	-28	0.00	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ■ None ☐ Slight ☐ Mod. ☐ Strong

Color ■ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ■ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered Qty	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 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L HNO3)

(5)

Filtered Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 15.08 ft

Comments

Sampler's Signature: JBohannan

Duck Creek

WELL/SAMPLE POINT OR14D **Purge Method:** PERISTALTIC

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/22/24 Start Time: 1355 Finish/Sample Time: 1440

Well Depth (Bottom) From MP: 48.73 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 11.91 ft Total Purge Volume: 1600 mL

Water Column Length: 36.82 ft

Well Water Volume: 22.29 L Total Drawdown: 0.07 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	1413	11.94	100	7.50	2080	20.55	-60	0.0	0.0
2	1416	11.98	100	7.53	2110	20.59	-63	0.0	18.3
3	1419	11.98	100	7.52	2100	20.53	-64	0.0	26.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 11.98 ft

Comments

Sampler's Signature:

Duck Creek

WELL/SAMPLE POINT OR19 **Purge Method:** Peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/24/24 Start Time: 1053 Finish/Sample Time: 1122

Well Depth (Bottom) From MP:	54.92 ft	Min. Purge Volume:	1000 mL
Depth to Water From MP:	23.31 ft	Total Purge Volume:	1000 mL
Water Column Length:	31.61 ft		
Well Water Volume:	19.14 L	Total Drawdown:	0.08 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	1102	23.36	500	6.03	2190	13.27	-24	0.00	107
2	1103	23.36	500	6.01	2190	13.26	-24	0.00	129
3	1104	23.37	500	6.01	2190	13.24	-23	0.00	133
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

AP

Field Meter: Horiba

Sample Appearance:

Odor: ● None ☐ Slight ☐ Mod. ☐ Strong

Color ● None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ● Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	X	
Well cap fits securely.	X	
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1	Rad (P, 2.5L, HNO3)

4
5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 23.39 ft

Comments

Sampler's Signature: JBohannon

Duck Creek

WELL/SAMPLE POINT OR20 **Purge Method:** Peristaltic

Last Quarter: Dedicated Peristaltic Tubing

Date: 10/23/24 Start Time: 1404 Finish/Sample Time: 1508

Well Depth (Bottom) From MP: 57.34 ft Min. Purge Volume: 1000 mL

Depth to Water From MP: 22.48 ft Total Purge Volume: 1600 mL

Water Column Length: 34.86 ft

Well Water Volume: 21.11 L Total Drawdown: 0.04 ft

Reading (Units)	Time	Depth ft.	Flow Rate mL/min	pH s.u.	Spec Cond umhos/cm	Temp deg C	ORP mV	DO mg/L	Turb NTU
1	1413	22.52	200	7.02	2569.0	14.44	-21.3	1.06	37.56
2	1414	22.52	200	7.02	2590.1	14.47	-20.4	1.04	57.73
3	1415	22.52	200	7.01	2558.2	14.46	-20.1	1.02	23.06
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatell C00

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes		✓

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 500mL, H2SO4)
1+1 dup	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1+1 dup	General (P, 1000 mL)
	Ammonia (P, 250mL, H2SO4)
1+1 dup	Rad (P, 2.5L, HNO3)

Filtered	
Qty	**Bottles**
1+1 dup	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1+1 dup	General (P,1000mL)
	TOC (A,V, 40mL, H2SO4)

Final DTW: 22.52 ft

Comments Field Dup

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck creek
Weather:	57°-37° mostly sunny wind 13mph N	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	3T85NNNF	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19F-F220213ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.51	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023219-02	8/9/2025
pH 7.00a	6.82	s.u.	±0.1 s.u.	F	Y	7.00	MSI	023334-01	12/7/2025
pH 10.00a	10.18	s.u.	±0.1 s.u.	F	Y	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	353	µS/cm	0<25 µS/cm	F	Y	21	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%	P	N	—	Proactive	3GJ1438	Oct-24
ORP	240	mV	±15 mV	P	N	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	98.3	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0917

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.88	s.u.	±0.15 s.u.	P	N	Proactive	3GE1074	May-25
pH 7.00b	6.94	s.u.	±0.15 s.u.	P	N	Proactive	3GE1252	May-25
pH 10.00b	9.94	s.u.	±0.15 s.u.	P	N	Geotech	3GA1134	Jan-25
SC 1000	960	µS/cm	±5%	P	N	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1541

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.97	s.u.	±0.1 s.u.	P	N	—	MSI	023219-02	8/9/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.			—	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.			—	MSI	024037-01	2/21/2026
SC 1000	978	µS/cm	±5%			—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L			—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore Date: 15-Oct-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	40-56°F partly cloudy NW 4-25 mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF220305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	N	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	6.19	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2011.0	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	250.2	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.21	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.06	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0924

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.08	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1037.8	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1553

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1042.8	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.07	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	42° SUNNY 12 mph N	Environment:	GRASSY
Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number: AQJTK4XQ
Water Level Meter	Make: SOLINST	Model: WT	Serial Number: 334559

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.78	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	PASS	NO	NA	MSI	023334-01	12/7/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	12	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	231	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0947

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	6.99	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.00	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	998	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1517

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/15/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron McGeehon	Location:	Duck Creek
Weather:	Hot - 80° - Sunny Wind 5mph NW	Environment:	grass, dust
Multiparameter Water Meter	Make: Hach	Model: U5000	Serial Number: 3T8SNNNF
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 19FF2202131ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	Yes	0.0	MSI	023219-02	8/9/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	P	NC	—	MSI	024037-01	2/21/2026
SC Zero (DI)	20	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	230	mV	±15 mV	P	NO	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.08	mg/L	±0.1	P	No	—	Macron	#000228049	8/26/2025
DO (Saturated)	73.2	%	97-100%	P	yes	100.0	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	41.0	NTU	<2 NTU	P	YES	0.0	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

2H2 @ 15°C

ICV (Initial Calibration Verification)					Time: 0950			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.96	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	958	µS/cm	±5%	P	—	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1524				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	NO	—	MSI	023334-01	12/7/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P	NO	—	MSI	024037-01	2/21/2026
SC 1000	964	µS/cm	±5%	P	No	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	No	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	No	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD	Location:	Duck Creek
Weather:	48-63°F m, sunny wind NW 7-12mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquafall	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.14	s.u.	±0.1 s.u.	F	Y	4.08	MSI	023219-02	8/9/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P	N	NA	MSI	023334-01	12/7/2025
pH 10.00a	9.93	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC Zero (DI)	6.17	µS/cm	0<25 µS/cm	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2060.7	µS/cm	±5%	↓	↓	↓	Proactive	3GJ1438	Oct-24
ORP	242.2	mV	±15 mV	↓	↓	↓	Reagents	8406644	Apr-25
DO (Zero pt)	0.09	mg/L	±0.1	↓	↓	↓	Macron	#000228049	8/26/2025
DO (Saturated)	98.2	%	97-100%	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0938			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	↓	↓	Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.	↓	↓	Geotech	3GA1134	Jan-25
SC 1000	1038.2	µS/cm	±5%	↓	↓	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1538			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	No	NA	MSI	023219-02	8/9/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	↓	↓	↓	MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.	↓	↓	↓	MSI	024037-01	2/21/2026
SC 1000	1044.4	µS/cm	±5%	↓	↓	↓	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L	↓	↓	↓	Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	↓	↓	↓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	40° SUNNY 5mph NW	Environment:	GRASS
Multiparameter Water Meter	Make: HORIBA	Model:	Serial Number: AGJTK4XG
Water Level Meter	Make: SOLINST	Model: LT	Serial Number: 533459

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	6.58	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.55	s.u.	±0.1 s.u.	FAIL	YES	7.00	MSI	023334-01	12/7/2025
pH 10.00a	8.20	s.u.	±0.1 s.u.	FAIL	YES	10.00	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	PASS	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	253	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 09:24

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.03	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	11000	µS/cm	±5%	FAIL	1000	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1308

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	n/a	MSI	023219-02	8/9/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck Creek
Weather:	47°- 66°F Windy Sunny S 7mph	Environment:	Grass, dust, woods
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: 378SNNNF
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.	P	No	—	MSI	023310-01	11/10/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.	P	NO	—	MSI	024145-01	5/29/2026
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NO	—	MSI	024072-02	3/21/2026
SC Zero (DI)	10	µS/cm	0<25 µS/cm	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P	NO	—	Proactive	3GJ1438	Oct-24
ORP	236	mV	±15 mV	P	NO	—	In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.09	mg/L	±0.1	P	NO	—	Macron	#000228049	8/26/2025
DO (Saturated)	~~0.~~ 98.2	%	97-100%	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

10/17/24 AP

Approx. every 8 hrs, unless only one well

242 @ 15°C

ICV (Initial Calibration Verification)					Time: 0951		
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	—	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.	P	—	Proactive	3GE1252	May-25
pH 10.00b	10.00	s.u.	±0.15 s.u.	P	—	Geotech	3GA1134	Jan-25
SC 1000	975	µS/cm	±5%		—	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1354				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	—	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.	P	NO	—	MSI	024145-01	5/29/2026
pH 10.00a	10.07	s.u.	±0.1 s.u.	P	NO	—	MSI	024072-02	3/21/2026
SC 1000	963	µS/cm	±5%	P	NO	—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/17/2024

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW			Location:	Duck Creek
Weather:	Sunny 43°-66° Lmph Wind S			Environment:	Grassy, muddy
Multiparameter Water Meter	Make: Horiba	Model: U-5000		Serial Number:	V7320PKK
Water Level Meter	Make: Heron Hortoo	Model: Dipper-T		Serial Number:	3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.37	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.60	s.u.	±0.1 s.u.	F	yes	7.00	MSI	024145-01	5/29/2026
pH 10.00a	10.02	s.u.	±0.1 s.u.	P	NO	N/A	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1930	µS/cm	±5%	P	NO		Proactive	3GJ1438	Oct-24
ORP	248	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	98.3	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:20

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.89	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	7.13	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	10.10	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 14:30

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.93	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.02	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1020	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/17/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	48-66°F overcast wind 5 SW 9-20mph	Environment:	grass, woods

Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	U FF2209305 ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	No	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	6.05	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1993.3	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	248.0	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.71	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0930

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.95	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1008.2	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1413

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1004.5	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/17/24

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Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	43° SUNNY 6MPH S	Environment:	GRASS
Multiparameter Water Meter	Make: HORIBA	Model: U50000	Serial Number: AGJTK4XG
Water Level Meter	Make: SOLINST	Model: WT	Serial Number: 33459

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.81	s.u.	±0.1 s.u.	FAIL	YES NO	4.00	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	13	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GI1438	Oct-24
ORP	232	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0935

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	1	1	Proactive	3GE1252	May-25
pH 10.00b	9.65	s.u.	±0.15 s.u.	FAIL	YES 10.00	Geotech	3GA1134	Jan-25
SC 1000	999	µS/cm	±5%	PASS	NO	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1413

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023219-02	8/9/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	997	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/16/24

17 APP 10/17/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Sunny 57°-79°5 mph Wind S	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKR
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.29	s.u.	±0.1 s.u.	F	yes	3.99	MSI	023310-01	11/10/2025
pH 7.00a	6.59	s.u.	±0.1 s.u.	F	yes	7.01	MSI	024145-01	5/29/2026
pH 10.00a	10.18	s.u.	±0.1 s.u.	F	yes	10.02	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%	P	NO	N/A	Proactive	3GJ1438	Oct-24
ORP	252	mV	±15 mV	P	NO	N/A	In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	99.4	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:30

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	6.97	s.u.	±0.15 s.u.	P		Proactive	3GE1252	May-25
pH 10.00b	10.03	s.u.	±0.15 s.u.	P		Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P		Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 15:20

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.07	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1010	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/21/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	HALEB DESKE	Location:	DUCK CREEK
Weather:	56°S SUNNY 5MPH S	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	A2JTK4XG	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	334159	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	231	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.03	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0929

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.08	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	6.99	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1528

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	1.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/21/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW	Location:	Duck Creek
Weather:	Mostly Cloudy 57°-75° 10mph Wind South	Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: V7320PKK
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	7.58	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.08	s.u.	±0.1 s.u.	F	yes	7.00	MSI	024145-01	5/29/2026
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	NO	N/A	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%	P	NO	N/A	Proactive	3GJ1438	Oct-24
ORP	248	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	97.7	%	97-100%	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:08

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.95	s.u.	±0.15 s.u.	F	yes / 3.99	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1509

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.05	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	9.96	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1030	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/22/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	56° CLOUDY 10 MPH S	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA	Model: U50	Serial Number:	AGJTK4XG	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	33459	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	232	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.20	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0959

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1509

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.83	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/23/24

APP 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW			Location:	Duck Creek
Weather:	Cloudy 55°-65° 13mph Wind NW			Environment:	Grassy, Gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000		Serial Number:	V7320PKK
Water Level Meter	Make: Heron	Model: Dipper-T		Serial Number:	3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P	NO		MSI	024145-01	5/29/2026
pH 10.00a	9.97	s.u.	±0.1 s.u.	P	NO		MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No		Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%	P	NO		Proactive	3GJ1438	Oct-24
ORP	245	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	No		Macron	#000228049	8/26/2025
DO (Saturated)	97.8	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	No		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 9:03

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1074	May-25
pH 7.00b	6.90	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.94	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1040	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 15:05

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.05	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.01	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1010	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Duck Creek
Weather:	56-67°F, sunny, wind NW 14-25 mph	Environment:	grass, weeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11F220305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.96	s.u.	±0.1 s.u.	P	N	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.96	s.u.	±0.1 s.u.	P	N	NA	MSI	024145-01	5/29/2026
pH 10.00a	9.88	s.u.	±0.1 s.u.	F	Y	10.04	MSI	024072-02	3/21/2026
SC Zero (DI)	5.09	µS/cm	0<25 µS/cm	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2043.0	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	238.1	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.01	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0910

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.85	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1014.4	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1520

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	No	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1031.1	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	55° Cloudy 13mph NNW	Environment:	Grass
Multiparameter Water Meter	Make: HORIBA	Model: U5000	Serial Number: AGJTK4XG
Water Level Meter	Make: SOLINST	Model: WT	Serial Number: 334559

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.50	s.u.	±0.1 s.u.	FAIL	YES	4.00	MSI	023310-01	11/10/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	024145-01	5/29/2026
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	230	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0918

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.01	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1505

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.13	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/23/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	AW			Location:	Duck Creek
Weather:	Sunny 46°-68° 4mph wind SE			Environment:	Grassy, gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000		Serial Number:	V7320PKK
Water Level Meter	Make: Heron	Model: Dipper-T		Serial Number:	3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	5.09	s.u.	±0.1 s.u.	F	yes	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.00	s.u.	±0.1 s.u.	F	yes	7.00	MSI	024145-01	5/29/2026
pH 10.00a	10.12	s.u.	±0.1 s.u.	F	yes	10.00	MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	NO	N/A	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	NO		Proactive	3GJ1438	Oct-24
ORP	245	mV	±15 mV	P	NO		In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1	P	NO		Macron	#000228049	8/26/2025
DO (Saturated)	100%	%	97-100%	P	NO		Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NO		Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 9:17

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.77	s.u.	±0.15 s.u.	F	yes / 4.00	Proactive	3GE1074	May-25
pH 7.00b	6.98	s.u.	±0.15 s.u.	P	NO	Proactive	3GE1252	May-25
pH 10.00b	9.97	s.u.	±0.15 s.u.	P	NO	Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%	P	NO	Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 15:10

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	6.95	s.u.	±0.1 s.u.	P			MSI	024145-01	5/29/2026
pH 10.00a	10.05	s.u.	±0.1 s.u.	P			MSI	024072-02	3/21/2026
SC 1000	1020	µS/cm	±5%	P			Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P			Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Cody Whitten Date: 10/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JO	Location:	Duck Creek
Weather:	36 - 70°F m.sunny wind SSE 7-15mph	Environment:	grasslands

Multiparameter Water Meter	Make: Aquaread	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.18	s.u.	±0.1 s.u.	F	Y	4.00	MSI	023310-01	11/10/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	N	NA	MSI	024145-01	5/29/2026
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	5.89	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2027.1	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	241.6	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.25	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0730

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.05	s.u.	±0.15 s.u.	P	NA	Proactive	3GE1074	May-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	9.96	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1019.2	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1540

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	NA	MSI	023310-01	11/10/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1030.6	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature:	[signature]	Date:	10/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	KALEB DESKE	Location:	DUCK CREEK
Weather:	44° SUNNY 4MPH ESE	Environment:	GRASS

Multiparameter Water Meter	Make: HORIBA	Model: U5000	Serial Number:	AGJTK4XB	
Water Level Meter	Make: SOLINST	Model: WT	Serial Number:	334559	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	PASS	NO	N/A	MSI	023310-01	11/10/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	232	mV	±15 mV				In-Situ	4GJ0045	Jul-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.13	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0902			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	PASS	NO	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.01	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	998	µS/cm	±5%			Spectrum	2NA0056	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1504				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	PASS	NO	NA	MSI	023310-01	11/10/2025
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	024145-01	5/29/2026
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	024072-02	3/21/2026
SC 1000	1000	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.52	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: [signature] Date: 10/24/24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek
Weather:	64°-49° mostly sunny wind 3 mph SW	Environment:	landfill grassy
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: AGJTKTXG
Water Level Meter	Make: WT	Model: Heron	Serial Number: 19FF220213 ML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2050	µS/cm	±5%				Proactive	3GJ1438	Oct-24
ORP	245	mV	±15 mV				Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0941

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	N	Proactive	3GE1074	May-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Proactive	3GE1252	May-25
pH 10.00b	10.04	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1020	µS/cm	±5%			Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1435

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N	N/A	MSI	023219-02	8/9/2025
pH 7.00a	7.06	s.u.	±0.1 s.u.				MSI	023334-01	12/7/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%				Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin M Date: 28-Oct-24

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Austin Moore	Location:	Duck Creek, Edwards Power Station
Weather:	82°-65° mostly sunny wind 16mph	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	AGJTKTXG	
Water Level Meter	Make: WT	Model: Heron	Serial Number:	19F2202131ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.58	s.u.	±0.1 s.u.	F	Y	3.95	MSI	023219-02	8/9/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.	P	N	—	MSI	023334-01	12/7/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.	P	N	—	MSI	024037-01	2/21/2026
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P	N	—	Proactive	3GJ1438	Oct-24
ORP	238	mV	±15 mV	P	N	—	Reagents	8406644	Apr-25
DO (Zero pt)	0.0	mg/L	±0.1	P	N	—	Macron	#000228049	8/26/2025
DO (Saturated)	99.2	%	97-100%	P	N	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	N	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0918

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.72	s.u.	±0.15 s.u.	F	Y 4.00	Proactive	3GE1074	May-25
pH 7.00b	7.23	s.u.	±0.15 s.u.	F	Y 7.00	Proactive	3GE1252	May-25
pH 10.00b	10.46	s.u.	±0.15 s.u.	F	Y 10.00	Geotech	3GA1134	Jan-25
SC 1000	975	µS/cm	±5%	P	N	Spectrum	2NA0024	Dec-25

Approx. every 8 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1600

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N	—	MSI	023219-02	8/9/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.			—	MSI	023334-01	12/7/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.			—	MSI	024037-01	2/21/2026
SC 1000	1010	µS/cm	±5%			—	Spectrum	2NA0024	Dec-25
DO (Zero pt)	0.0	mg/L	±0.1 mg/L			—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU			—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 8 hrs, unless only one well

Comments:

Signature: Austin Moore Date: 29-Oct-24

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

December 15, 2024

Daryl Johnson
Vistra - Duck Creek
17751 North Cilco Road
Canton, IL 61520-8761

Dear Daryl Johnson:

Please find enclosed the **revised** analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Diane Billings
Project Manager

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order HJ03213

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HJ03510

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
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HJ03767

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HJ04301

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HJ04568

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order HJ04994

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
YES	Case narrative provided

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Case Narrative

The original report dated 12/3/24 was revised to update the sample collection time for R61L.

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Sample: HJ03213-01 **Sampled:** 10/15/24 11:04
Name: OM101S **Received:** 10/15/24 16:57
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.406 J	pCi/L			1	0.623	11/08/24 20:15	PACE	904.0 903.0

Sample: HJ03213-02 **Sampled:** 10/15/24 12:06
Name: OM101D **Received:** 10/15/24 16:57
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.54	pCi/L			1	0.598	11/08/24 20:15	PACE	904.0 903.0

Sample: HJ03213-03 **Sampled:** 10/15/24 13:55
Name: OM100S **Received:** 10/15/24 16:57
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.24	pCi/L			1	0.528	11/09/24 00:31	PACE	904.0 903.0

Sample: HJ03213-04 **Sampled:** 10/15/24 14:43
Name: OM100D **Received:** 10/15/24 16:57
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.649	pCi/L			1	0.569	11/09/24 00:31	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ03213-05 **Sampled:** 10/15/24 15:45
Name: OM04S **Received:** 10/15/24 16:57
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.512 U	pCi/L			1	0.461	11/09/24 00:31	PACE	904.0 903.0

Sample: HJ03213-06 **Sampled:** 10/15/24 11:19
Name: G50S **Received:** 10/15/24 16:57
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.594 J	pCi/L			1	1.35	11/13/24 17:54	PACE	904.0 903.0

Sample: HJ03510-01 **Sampled:** 10/16/24 10:54
Name: OM16 **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.2	pCi/L			1	0.567	11/13/24 17:55	PACE	904.0 903.0

Sample: HJ03510-02 **Sampled:** 10/16/24 11:44
Name: OM17D **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.57	pCi/L			1	0.486	11/13/24 17:55	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ03510-03 **Sampled:** 10/16/24 13:15
Name: OM21 **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.55	pCi/L			1	0.587	11/13/24 17:55	PACE	904.0 903.0

Sample: HJ03510-04 **Sampled:** 10/16/24 14:20
Name: OM24D **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.16	pCi/L			1	0.659	11/13/24 17:55	PACE	904.0 903.0

Sample: HJ03510-05 **Sampled:** 10/16/24 15:13
Name: OR02 **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.31	pCi/L			1	0.715	11/13/24 17:55	PACE	904.0 903.0

Sample: HJ03510-06 **Sampled:** 10/16/24 13:50
Name: G57S **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.01	pCi/L			1	0.616	11/13/24 17:55	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ03510-07 **Sampled:** 10/16/24 12:51
Name: G54S **Received:** 10/16/24 16:40
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.11	pCi/L			1	1.04	11/13/24 17:55	PACE	904.0 903.0

Sample: HJ03767-01 **Sampled:** 10/17/24 13:10
Name: G61S **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.753	pCi/L			1	0.655	11/15/24 14:02	PACE	904.0 903.0

Sample: HJ03767-02 **Sampled:** 10/17/24 11:56
Name: G60S **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.73	pCi/L			1	0.611	11/15/24 14:02	PACE	904.0 903.0

Sample: HJ03767-03 **Sampled:** 10/17/24 11:02
Name: G60L **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.480 J	pCi/L			1	0.853	11/15/24 14:02	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ03767-04 **Sampled:** 10/17/24 12:28
Name: OR03D **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.95	pCi/L			1	0.746	11/21/24 17:05	PACE	904.0 903.0

Sample: HJ03767-05 **Sampled:** 10/17/24 11:16
Name: OR04D **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.21	pCi/L			1	0.965	11/15/24 14:02	PACE	904.0 903.0

Sample: HJ03767-06 **Sampled:** 10/17/24 13:25
Name: OM23D **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.418 J	pCi/L			1	0.701	11/15/24 14:02	PACE	904.0 903.0

Sample: HJ03767-07 **Sampled:** 10/17/24 13:07
Name: OM12 **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.43	pCi/L			1	0.6	11/15/24 14:02	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ03767-08 **Sampled:** 10/17/24 12:04
Name: OM12D **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.71	pCi/L			1	0.532	11/21/24 14:02	PACE	904.0 903.0

Sample: HJ03767-09 **Sampled:** 10/17/24 14:20
Name: OM25S **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.41	pCi/L			1	0.634	11/16/24 10:58	PACE	904.0 903.0

Sample: HJ03767-10 **Sampled:** 10/17/24 14:30
Name: EB #1 **Received:** 10/17/24 16:08
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.000 U	pCi/L			1	0.671	11/16/24 10:58	PACE	904.0 903.0

Sample: HJ04301-01 **Sampled:** 10/22/24 14:40
Name: OR14D **Received:** 10/22/24 16:39
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.12	pCi/L			1	0.543	11/19/24 17:47	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04301-02
Name: P60
Matrix: Ground Water - Grab

Sampled: 10/22/24 13:41
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.49	pCi/L			1	0.795	11/19/24 17:47	PACE	904.0 903.0

Sample: HJ04301-03
Name: G64L
Matrix: Ground Water - Grab

Sampled: 10/22/24 13:05
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.114 U	pCi/L			1	0.591	11/19/24 17:47	PACE	904.0 903.0

Sample: HJ04301-04
Name: G64S
Matrix: Ground Water - Grab

Sampled: 10/22/24 14:40
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.13	pCi/L			1	0.503	11/19/24 17:47	PACE	904.0 903.0

Sample: HJ04301-05
Name: G62L
Matrix: Ground Water - Grab

Sampled: 10/22/24 15:40
Received: 10/22/24 16:39
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.454	pCi/L			1	0.449	11/19/24 17:47	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04568-01
Name: G02S
Matrix: Ground Water - Grab

Sampled: 10/23/24 11:20
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.276 U	pCi/L			1	0.819	11/20/24 16:35	PACE	904.0 903.0

Sample: HJ04568-02
Name: OR11
Matrix: Ground Water - Grab

Sampled: 10/23/24 13:48
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.558 J	pCi/L			1	0.91	11/20/24 16:35	PACE	904.0 903.0

Sample: HJ04568-03
Name: OR20
Matrix: Ground Water - Grab

Sampled: 10/23/24 15:08
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.452 J	pCi/L			1	0.685	11/20/24 16:35	PACE	904.0 903.0

Sample: HJ04568-04
Name: OR20 DUP
Matrix: Ground Water - Grab

Sampled: 10/23/24 15:08
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.627	pCi/L			1	0.612	11/20/24 16:35	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04568-05
Name: BA03
Matrix: Ground Water - Grab

Sampled: 10/23/24 13:45
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.430 J	pCi/L			1	0.433	11/20/24 16:35	PACE	904.0 903.0

Sample: HJ04568-06
Name: BA02
Matrix: Ground Water - Grab

Sampled: 10/23/24 12:35
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.343 J	pCi/L			1	0.53	11/20/24 16:35	PACE	904.0 903.0

Sample: HJ04568-07
Name: BA01
Matrix: Ground Water - Grab

Sampled: 10/23/24 11:35
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.21	pCi/L			1	0.511	11/20/24 16:35	PACE	904.0 903.0

Sample: HJ04568-08
Name: BA01 Dup
Matrix: Ground Water - Grab

Sampled: 10/23/24 11:35
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.05	pCi/L			1	0.41	11/20/24 16:35	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04568-09
Name: BA06
Matrix: Ground Water - Grab

Sampled: 10/23/24 14:59
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.591	pCi/L			1	0.523	11/22/24 11:55	PACE	904.0 903.0

Sample: HJ04568-10
Name: R61L
Matrix: Ground Water - Grab

Sampled: 10/23/24 11:52
Received: 10/23/24 16:18
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.381 J	pCi/L			1	0.571	11/22/24 11:55	PACE	904.0 903.0

Sample: HJ04994-01
Name: G54L
Matrix: Ground Water - Grab

Sampled: 10/24/24 10:38
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.350 J	pCi/L			1	0.725	11/21/24 17:06	PACE	904.0 903.0

Sample: HJ04994-02
Name: BA04
Matrix: Ground Water - Grab

Sampled: 10/24/24 13:40
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.03	pCi/L			1	0.608	11/21/24 17:06	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04994-03
Name: BA05
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:15
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.776	pCi/L			1	0.682	11/21/24 17:06	PACE	904.0 903.0

Sample: HJ04994-04
Name: G51S
Matrix: Ground Water - Grab

Sampled: 10/24/24 10:41
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.04	pCi/L			1	0.638	11/21/24 17:06	PACE	904.0 903.0

Sample: HJ04994-05
Name: Field Blank
Matrix: Ground Water - Grab

Sampled: 10/24/24 15:30
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.141 U	pCi/L			1	0.586	11/21/24 17:06	PACE	904.0 903.0

Sample: HJ04994-06
Name: OR13D
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:59
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.834	pCi/L			1	0.728	11/21/24 17:06	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04994-07
Name: OR13S
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:30
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.265 U	pCi/L			1	0.755	11/21/24 17:06	PACE	904.0 903.0

Sample: HJ04994-08
Name: OR19
Matrix: Ground Water - Grab

Sampled: 10/24/24 11:22
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.66	pCi/L			1	1.47	11/21/24 17:06	PACE	904.0 903.0

Sample: HJ04994-09
Name: EB #2
Matrix: Ground Water - Grab

Sampled: 10/24/24 15:40
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.166 U	pCi/L			1	0.66	11/23/24 00:40	PACE	904.0 903.0

Sample: HJ04994-10
Name: OM07
Matrix: Ground Water - Grab

Sampled: 10/24/24 08:49
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.896	pCi/L			1	0.707	11/23/24 00:40	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04994-11
Name: OR06A
Matrix: Ground Water - Grab

Sampled: 10/24/24 09:38
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.845	pCi/L			1	0.818	11/23/24 13:13	PACE	904.0 903.0

Sample: HJ04994-12
Name: OM22D
Matrix: Ground Water - Grab

Sampled: 10/24/24 11:35
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.87	pCi/L			1	0.985	11/23/24 13:13	PACE	904.0 903.0

Sample: HJ04994-13
Name: OM15D
Matrix: Ground Water - Grab

Sampled: 10/24/24 10:42
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1	pCi/L			1	0.933	11/23/24 13:13	PACE	904.0 903.0

Sample: HJ04994-14
Name: OM28
Matrix: Ground Water - Grab

Sampled: 10/24/24 12:45
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.94	pCi/L			1	1.22	11/23/24 13:13	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04994-15 **Sampled:** 10/24/24 13:45
Name: OM27 **Received:** 10/24/24 16:29
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.63	pCi/L			1	1.56	11/23/24 13:13	PACE	904.0 903.0

Sample: HJ04994-16 **Sampled:** 10/24/24 14:23
Name: OM26 **Received:** 10/24/24 16:29
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	4.18	pCi/L			1	1.91	11/23/24 13:13	PACE	904.0 903.0

Sample: HJ04994-17 **Sampled:** 10/24/24 15:28
Name: XPW01 **Received:** 10/24/24 16:29
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.17	pCi/L			1	0.883	11/23/24 13:13	PACE	904.0 903.0

Sample: HJ04994-18 **Sampled:** 10/24/24 14:10
Name: OM01 **Received:** 10/24/24 16:29
Matrix: Ground Water - Grab **PO #:** 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.430 J	pCi/L			1	0.483	11/23/24 18:50	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: HJ04994-19
Name: OM01 Dup
Matrix: Ground Water - Grab

Sampled: 10/24/24 14:10
Received: 10/24/24 16:29
PO #: 2438773/2438768

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.334 J	pCi/L			1	0.491	11/23/24 00:41	PACE	904.0 903.0

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NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Certified by: Diane Billings, Project Manager

ANALYTICAL REPORT

November 22, 2024

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1790745
Samples Received:	10/18/2024
Project Number:	HJ03213
Description:	
Site:	01
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

	Collected by	Collected date/time	Received date/time
HJ03213-01 L1790745-01 Non-Potable Water		10/15/24 11:04	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2391148	1	10/29/24 19:31	11/06/24 17:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2397322	1	11/07/24 12:51	11/08/24 20:15	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2397322	1	11/07/24 12:51	11/08/24 20:15	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HJ03213-02 L1790745-02 Non-Potable Water		10/15/24 12:06	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2391148	1	10/29/24 19:31	11/06/24 17:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2397322	1	11/07/24 12:51	11/08/24 20:15	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2397322	1	11/07/24 12:51	11/08/24 20:15	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HJ03213-03 L1790745-03 Non-Potable Water		10/15/24 13:55	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2391148	1	10/29/24 19:31	11/06/24 17:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2397322	1	11/07/24 12:51	11/09/24 00:31	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2397322	1	11/07/24 12:51	11/09/24 00:31	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HJ03213-04 L1790745-04 Non-Potable Water		10/15/24 14:43	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2391148	1	10/29/24 19:31	11/06/24 17:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2397322	1	11/07/24 12:51	11/09/24 00:31	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2397322	1	11/07/24 12:51	11/09/24 00:31	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HJ03213-05 L1790745-05 Non-Potable Water		10/15/24 15:45	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2391148	1	10/29/24 19:31	11/06/24 17:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2397322	1	11/07/24 12:51	11/09/24 00:31	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2397322	1	11/07/24 12:51	11/09/24 00:31	ZRG	Mt. Juliet, TN

	Collected by	Collected date/time	Received date/time
HJ03213-06 L1790745-06 Non-Potable Water		10/15/24 11:19	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2391148	1	10/29/24 19:31	11/06/24 17:23	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:54	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:54	ZRG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/14/24 17:34

Project Narrative

SAMPLE RESULTS - 01

HJ03213-01
Collected date/time: 10/15/24 11:04
L1790745

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.329	J	0.279	0.500	0.514	0.270	11/06/2024 17:23	WG2391148
(T) Barium	*85.2*					*30.0-143*	*11/06/2024 17:23*	WG2391148
(T) Yttrium	*94.7*					*30.0-136*	*11/06/2024 17:23*	WG2391148

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.406	J	0.352	0.623	11/08/2024 20:15	WG2397322

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0773	U	0.215	0.296	0.352	0.229	11/08/2024 20:15	WG2397322
(T) Barium-133	*97.5*					*30.0-143*	*11/08/2024 20:15*	WG2397322

HJ03213-02 SAMPLE RESULTS - 02

Collected date/time: 10/15/24 12:06 L1790745

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.43		0.333	0.656	0.572	0.305	11/06/2024 17:23	WG2391148
(T) Barium	*76.9*					*30.0-143*	*11/06/2024 17:23*	WG2391148
(T) Yttrium	*99.2*					*30.0-136*	*11/06/2024 17:23*	WG2391148

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.54		0.359	0.598	11/08/2024 20:15	WG2397322

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.107	J	0.133	0.247	0.176	0.145	11/08/2024 20:15	WG2397322
(T) Barium-133	*91.4*					*30.0-143*	*11/08/2024 20:15*	WG2397322

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.957		0.234	0.444	0.407	0.215	11/06/2024 17:23	WG2391148
(T) Barium	*90.1*					*30.0-143*	*11/06/2024 17:23*	WG2391148
(T) Yttrium	*101*					*30.0-136*	*11/06/2024 17:23*	WG2391148

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.24		0.354	0.528	11/09/2024 00:31	WG2397322

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.283	J	0.266	0.455	0.337	0.226	11/09/2024 00:31	WG2397322
(T) Barium-133	*97.6*					*30.0-143*	*11/09/2024 00:31*	WG2397322

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.194	U	0.259	0.484	0.483	0.255	11/06/2024 17:23	WG2391148
(T) Barium	*84.4*					*30.0-143*	*11/06/2024 17:23*	WG2391148
(T) Yttrium	*92.6*					*30.0-136*	*11/06/2024 17:23*	WG2391148

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.649		0.396	0.569	11/09/2024 00:31	WG2397322

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.455		0.299	0.623	0.301	0.211	11/09/2024 00:31	WG2397322
(T) Barium-133	*103*					*30.0-143*	*11/09/2024 00:31*	WG2397322

HJ03213-05 SAMPLE RESULTS - 05

Collected date/time: 10/15/24 15:45 L1790745

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.0110	U	0.279	0.482	0.253	0.131	11/06/2024 17:23	WG2391148
(T) Barium	*94.9*					*30.0-143*	*11/06/2024 17:23*	WG2391148
(T) Yttrium	*103*					*30.0-136*	*11/06/2024 17:23*	WG2391148

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0512	U	0.354	0.461	11/09/2024 00:31	WG2397322

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0512	U	0.218	0.312	0.385	0.257	11/09/2024 00:31	WG2397322
(T) Barium-133	*90.9*					*30.0-143*	*11/09/2024 00:31*	WG2397322

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.233	J	1.38	1.95	1.24	0.640	11/06/2024 17:23	WG2391148
(T) Barium	*37.7*					*30.0-143*	*11/06/2024 17:23*	WG2391148
(T) Yttrium	*84.0*					*30.0-136*	*11/06/2024 17:23*	WG2391148

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.594	J	1.44	1.35	11/13/2024 17:54	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.361	J	0.404	0.694	0.544	0.377	11/13/2024 17:54	WG2398293
(T) Barium-133	*55.2*					*30.0-143*	*11/13/2024 17:54*	WG2398293

Method Blank (MB)

(MB) R4143953-5 11/08/24 13:52

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.471	U	0.166	0.181	0.0939
(T) Barium	*95.7*		*95.7*		
(T) Yttrium	*94.2*		*94.2*		

L1790745-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1790745-06 11/06/24 17:23 • (DUP) R4143953-4 11/06/24 17:23

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.233	1.38	1.24	0.640	-0.0938	0.385	0.721	0.376	200	0.228	U	20	3
(T) Barium	*37.7*				*94.8*	*94.8*							
(T) Yttrium	*84.0*				*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R4143953-1 11/06/24 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.02	100	80.0-120	
(T) Barium			*112*		
(T) Yttrium			*99.9*		

L1789938-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1789938-01 11/06/24 17:23 • (MS) R4143953-2 11/06/24 17:23 • (MSD) R4143953-3 11/06/24 17:23

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	3.74	20.3	20.1	99.1	97.7	1	70.0-130			1.19		20
(T) Barium		*84.6*			*104*	*88.7*							
(T) Yttrium		*102*			*88.0*	*91.1*							

WG2397322 QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M L1790745-01,02,03,04,05

Method Blank (MB)

(MB) R4146049-1 11/08/24 20:15

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0136	U	0.0487	0.0853	0.0572
(T) Barium-133	*96.5*		*96.5*		

L1790745-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1790745-05 11/09/24 00:31 • (DUP) R4146049-5 11/08/24 20:15

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0512	0.218	0.385	0.257	0.151	0.187	0.257	0.196	98.7	0.348	J	20	3
(T) Barium-133	*90.9*				*85.6*	*85.6*							

Laboratory Control Sample (LCS)

(LCS) R4146049-2 11/08/24 20:15

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.11	102	80.0-120	
(T) Barium-133			*90.9*		

L1790479-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1790479-01 11/14/24 00:00 • (MS) R4146049-6 11/14/24 00:00 • (MSD) R4146049-7 11/14/24 00:00

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0651	16.3	16.4	81.1	81.7	1	75.0-125			0.673		20
(T) Barium-133		*88.5*			*95.2*	*98.4*							

Method Blank (MB)

(MB) R4146022-1 11/13/24 17:54

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00265	U	0.0506	0.104	0.0718
(T) Barium-133	*78.3*		*78.3*		

L1790876-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1790876-06 11/13/24 17:55 • (DUP) R4146022-5 11/13/24 17:54

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.153	0.162	0.185	0.153	0.0187	0.252	0.460	0.300	156	0.448	U	20	3
(T) Barium-133	*80.6*				*84.4*	*84.4*							

Laboratory Control Sample (LCS)

(LCS) R4146022-2 11/13/24 17:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.90	98.1	80.0-120	
(T) Barium-133			*85.9*		

L1790751-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1790751-01 11/13/24 17:54 • (MS) R4146022-3 11/13/24 17:54 • (MSD) R4146022-4 11/13/24 17:54

Analyte	Spike Amount Bq/l	Original Result Bq/l	MS Result Bq/l	MSD Result Bq/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	0.740	0.000	0.726	0.742	98.1	100	1	75.0-125			2.17		20
(T) Barium-133		*92.4*			*98.2*	*101*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

C057

Pace Analytical Services, LLC

HJ03213

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1790745

Sample: HJ03213-01
Name: OM101S

Sampled: 10/15/24 11:04
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/28/24 16:00	04/13/25 11:04	

Sample: HJ03213-02
Name: OM101D

Sampled: 10/15/24 12:06
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/28/24 16:00	04/13/25 12:06	

Sample: HJ03213-03
Name: OM100S

Sampled: 10/15/24 13:55
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/28/24 16:00	04/13/25 13:55	

Sample: HJ03213-04
Name: OM100D

Sampled: 10/15/24 14:43
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/28/24 16:00	04/13/25 14:43	

Sample: HJ03213-05
Name: OM04S

Sampled: 10/15/24 15:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/28/24 16:00	04/13/25 15:45	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
HJ03213

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1790745

Sample: HJ03213-06
Name: G50S

Sampled: 10/15/24 11:19
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/28/24 16:00	04/13/25 11:19	

TLAG 12.0+0.3=12.3

7793 2152 4526

Sample Receipt Checklist

			If Applicable	
COC Seal Present/Intact:	Y N		VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N		Pres. Correct/Check:	Y N
Bottles arrive intact:	Y N			
Correct bottles used:	Y N			
Sufficient volume sent:	Y N			
RA Screen <0.5 mR/hr:	Y N			

Containers: 6

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/17/24 Total # of Containers: 6 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	10/17/24 0630		10/18/2024 0900

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

November 19, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1790876
Samples Received:	10/18/2024
Project Number:	HJ03510
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

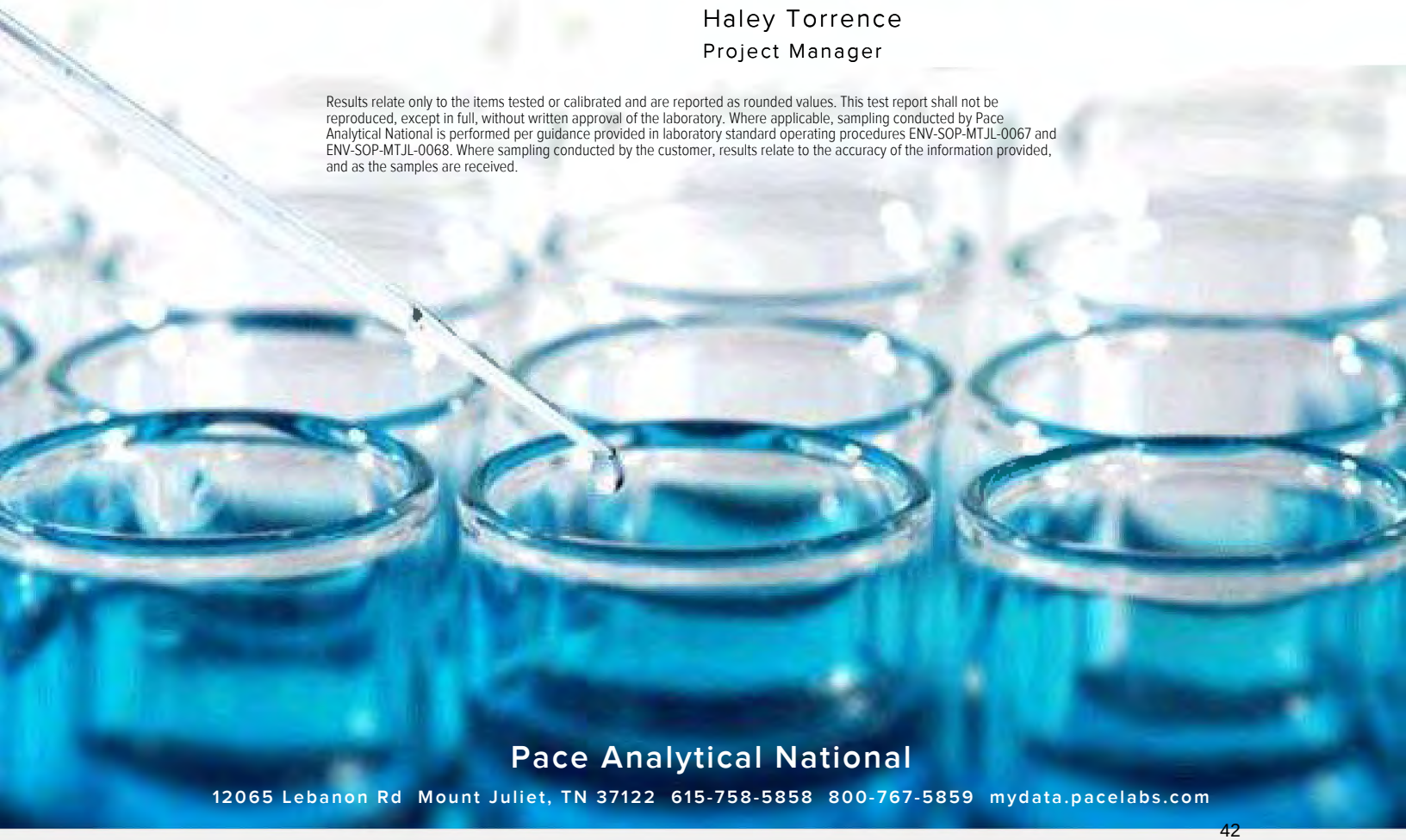


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SAMPLE SUMMARY

HJ03510-01 L1790876-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 10:54	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

HJ03510-02 L1790876-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 11:44	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

HJ03510-03 L1790876-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 13:15	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

HJ03510-04 L1790876-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 14:20	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

HJ03510-05 L1790876-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 15:13	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

HJ03510-06 L1790876-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 13:50	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HJ03510-07 L1790876-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/16/24 12:51	10/18/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2392562	1	11/06/24 21:14	11/13/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2398293	1	11/11/24 09:21	11/13/24 17:55	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2398293	1	11/11/24 09:21	11/13/24 17:55	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

SAMPLE RESULTS - 01

HJ03510-01 L1790876
Collected date/time: 10/16/24 10:54

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.17		0.492	0.700	0.502	0.262	11/13/2024 17:42	WG2392562
(T) Barium	*115*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*91.2*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.20		0.505	0.567	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0299	U	0.116	0.172	0.263	0.207	11/13/2024 17:55	WG2398293
(T) Barium-133	*67.2*					*30.0-143*	*11/13/2024 17:55*	WG2398293

HJ03510-02 SAMPLE RESULTS - 02

Collected date/time: 10/16/24 11:44 L1790876

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.47		0.454	0.657	0.456	0.238	11/13/2024 17:42	WG2392562
(T) Barium	*95.0*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*106*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.57		0.472	0.486	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.102	J	0.128	0.226	0.169	0.139	11/13/2024 17:55	WG2398293
(T) Barium-133	*91.8*					*30.0-143*	*11/13/2024 17:55*	WG2398293

HJ03510-03 SAMPLE RESULTS - 03

Collected date/time: 10/16/24 13:15 L1790876

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.49		0.541	0.763	0.548	0.286	11/13/2024 17:42	WG2392562
(T) Barium	*109*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*81.3*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.55		0.554	0.587	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0634	U	0.120	0.203	0.209	0.164	11/13/2024 17:55	WG2398293
(T) Barium-133	*84.4*					*30.0-143*	*11/13/2024 17:55*	WG2398293

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.13		0.620	0.846	0.637	0.332	11/13/2024 17:42	WG2392562
(T) Barium	*86.2*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*89.6*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.16		0.625	0.659	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0294	U	0.0790	0.135	0.170	0.140	11/13/2024 17:55	WG2398293
(T) Barium-133	*91.5*					*30.0-143*	*11/13/2024 17:55*	WG2398293

HJ03510-05 SAMPLE RESULTS - 05

Collected date/time: 10/16/24 15:13 L1790876

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.13		0.706	0.947	0.695	0.362	11/13/2024 17:42	WG2392562
(T) Barium	*75.1*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*92.2*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.31		0.725	0.715	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.176		0.164	0.307	0.169	0.140	11/13/2024 17:55	WG2398293
(T) Barium-133	*87.9*					*30.0-143*	*11/13/2024 17:55*	WG2398293

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.853		0.596	0.821	0.588	0.307	11/13/2024 17:42	WG2392562
(T) Barium	*84.8*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*91.2*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.01		0.618	0.616	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.153	J	0.162	0.289	0.185	0.153	11/13/2024 17:55	WG2398293
(T) Barium-133	*80.6*					*30.0-143*	*11/13/2024 17:55*	WG2398293

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.66		1.01	1.37	0.991	0.518	11/13/2024 17:42	WG2392562
(T) Barium	*64.2*					*30.0-143*	*11/13/2024 17:42*	WG2392562
(T) Yttrium	*95.2*					*30.0-136*	*11/13/2024 17:42*	WG2392562

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.11		1.06	1.04	11/13/2024 17:55	WG2398293

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.449		0.324	0.617	0.329	0.240	11/13/2024 17:55	WG2398293
(T) Barium-133	*76.2*					*30.0-143*	*11/13/2024 17:55*	WG2398293

Method Blank (MB)

(MB) R4147532-1 11/13/24 17:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.118	U	0.135	0.265	0.140
(T) Barium	*120*		*120*		
(T) Yttrium	*101*		*101*		

L1790876-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1790876-07 11/13/24 17:42 • (DUP) R4147532-4 11/13/24 17:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.66	1.01	0.991	0.518	0.508	0.351	0.656	0.342	106	1.07	J	20	3
(T) Barium	*64.2*				*107*	*107*							
(T) Yttrium	*95.2*				*97.5*	*97.5*							

Laboratory Control Sample (LCS)

(LCS) R4147532-2 11/13/24 17:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.98	99.6	80.0-120	
(T) Barium			*115*		
(T) Yttrium			*85.3*		

L1790746-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1790746-02 11/13/24 17:42 • (MS) R4147532-5 11/15/24 14:02 • (MSD) R4147532-3 11/13/24 17:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.89	18.8	18.3	102	98.5	1	70.0-130			2.74		20
(T) Barium		*100*			*88.7*	*87.9*							
(T) Yttrium		*84.3*			*101*	*89.0*							

Method Blank (MB)

(MB) R4146022-1 11/13/24 17:54

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00265	U	0.0506	0.104	0.0718
(T) Barium-133	*78.3*		*78.3*		

L1790876-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1790876-06 11/13/24 17:55 • (DUP) R4146022-5 11/13/24 17:54

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.153	0.162	0.185	0.153	0.0187	0.252	0.460	0.300	156	0.448	U	20	3
(T) Barium-133	*80.6*				*84.4*	*84.4*							

Laboratory Control Sample (LCS)

(LCS) R4146022-2 11/13/24 17:54

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.90	98.1	80.0-120	
(T) Barium-133			*85.9*		

L1790751-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1790751-01 11/13/24 17:54 • (MS) R4146022-3 11/13/24 17:54 • (MSD) R4146022-4 11/13/24 17:54

Analyte	Spike Amount Bq/l	Original Result Bq/l	MS Result Bq/l	MSD Result Bq/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	0.740	0.000	0.726	0.742	98.1	100	1	75.0-125			2.17		20
(T) Barium-133		*92.4*			*98.2*	*101*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

B187

Pace Analytical Services, LLC
HJ03510

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LIP08716

Sample: HJ03510-01
Name: OM16

Sampled: 10/16/24 10:54
Matrix: Ground Water
Preservative: HNO3, pH <2 -01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 10:54	

Sample: HJ03510-02
Name: OM17D

Sampled: 10/16/24 11:44
Matrix: Ground Water
Preservative: HNO3, pH <2 -02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 11:44	

Sample: HJ03510-03
Name: OM21

Sampled: 10/16/24 13:15
Matrix: Ground Water
Preservative: HNO3, pH <2 -03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 13:15	

Sample: HJ03510-04
Name: OM24D

Sampled: 10/16/24 14:20
Matrix: Ground Water
Preservative: HNO3, pH <2 -04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 14:20	

Sample: HJ03510-05
Name: OR02

Sampled: 10/16/24 15:13
Matrix: Ground Water
Preservative: HNO3, pH <2 -05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 15:13	

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
HJ03510

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LI908676

Sample: HJ03510-06
Name: G57S

Sampled: 10/16/24 13:50
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 13:50	

Sample: HJ03510-07
Name: G54S

Sampled: 10/16/24 12:51
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/29/24 16:00	04/14/25 12:51	

[redacted]

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/17/24 Total # of Containers: 7 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	10/17/24 0620	CROUCH	10.18.24 0900
	Date/Time		

Sample Receipt Checklist 779214460013

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N	11.6+0.3=11.9	TLA9

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

November 27, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1791348
Samples Received:	10/22/2024
Project Number:	HJ03767
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

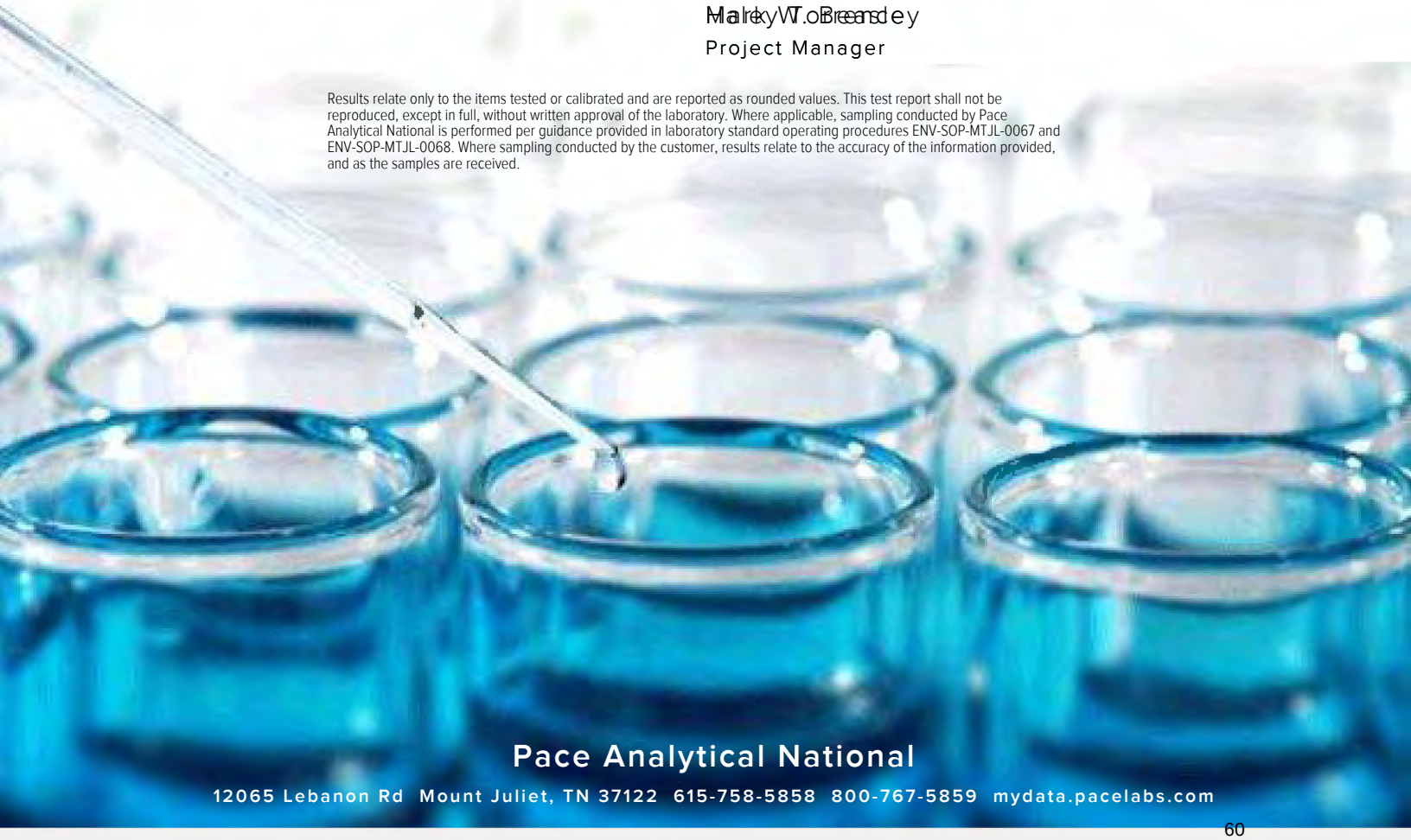


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SAMPLE SUMMARY

HJ03767-01 L1791348-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/17/24 13:10	10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-02 L1791348-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/17/24 11:56	10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-03 L1791348-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/17/24 11:02	10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-04 L1791348-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/17/24 12:28	10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-05 L1791348-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/17/24 11:16	10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-06 L1791348-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/17/24 13:25	10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HJ03767-07 L1791348-07 Non-Potable Water

Collected by | Collected date/time 10/17/24 13:07 | Received date/time 10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-08 L1791348-08 Non-Potable Water

Collected by | Collected date/time 10/17/24 12:04 | Received date/time 10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2396110	1	11/08/24 08:47	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/15/24 14:02	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-09 L1791348-09 Non-Potable Water

Collected by | Collected date/time 10/17/24 14:20 | Received date/time 10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397041	1	11/11/24 14:23	11/16/24 10:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/16/24 10:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

HJ03767-10 L1791348-10 Non-Potable Water

Collected by | Collected date/time 10/17/24 14:30 | Received date/time 10/22/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397041	1	11/11/24 14:23	11/16/24 10:58	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399468	1	11/11/24 12:35	11/16/24 10:58	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399468	1	11/11/24 12:35	11/14/24 19:33	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Mark W. Beasley
Project Manager

HJ03767-01 SAMPLE RESULTS - 01

Collected date/time: 10/17/24 13:10 L1791348

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.469	J	0.294	0.520	0.561	0.293	11/15/2024 14:02	WG2396110
(T) Barium	*93.9*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*82.0*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.753		0.397	0.655	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.284	J	0.267	0.456	0.338	0.227	11/14/2024 19:33	WG2399468
(T) Barium-133	*97.4*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.350	J	0.267	0.481	0.513	0.268	11/15/2024 14:02	WG2396110
(T) Barium	*112*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*87.1*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.73		0.573	0.611	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.38		0.507	1.27	0.332	0.233	11/14/2024 19:33	WG2399468
(T) Barium-133	*90.7*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.207	U	0.390	0.636	0.755	0.393	11/15/2024 14:02	WG2396110
(T) Barium	*84.5*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*76.8*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.480	J	0.490	0.853	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.272	J	0.296	0.529	0.397	0.265	11/14/2024 19:33	WG2399468
(T) Barium-133	*88.3*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	2.44		0.436	0.763	0.697	0.369	11/21/2024 17:05	WG2396110
(T) Barium	*84.1*					*30.0-143*	*11/21/2024 17:05*	WG2396110
(T) Yttrium	*86.0*					*30.0-136*	*11/21/2024 17:05*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	3.95		0.652	0.746	11/21/2024 17:05	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.52		0.485	1.16	0.265	0.190	11/14/2024 19:33	WG2399468
(T) Barium-133	*90.6*					*30.0-143*	*11/14/2024 19:33*	WG2399468

HJ03767-05 SAMPLE RESULTS - 05

Collected date/time: 10/17/24 11:16 L1791348

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.762	J	0.490	0.778	0.937	0.489	11/15/2024 14:02	WG2396110
(T) Barium	*62.9*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*76.8*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.21		0.562	0.965	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.453		0.276	0.474	0.230	0.175	11/14/2024 19:33	WG2399468
(T) Barium-133	*95.8*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.256	U	0.322	0.561	0.624	0.326	11/15/2024 14:02	WG2396110
(T) Barium	*85.7*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*80.4*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.418	J	0.391	0.701	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.162	J	0.221	0.367	0.319	0.210	11/14/2024 19:33	WG2399468
(T) Barium-133	*98.2*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.393	J	0.280	0.508	0.537	0.282	11/15/2024 14:02	WG2396110
(T) Barium	*89.1*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*85.0*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.43		0.485	0.600	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.04		0.396	0.980	0.267	0.187	11/14/2024 19:33	WG2399468
(T) Barium-133	*89.5*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.23		0.260	0.492	0.466	0.246	11/15/2024 14:02	WG2396110
(T) Barium	*93.3*					*30.0-143*	*11/15/2024 14:02*	WG2396110
(T) Yttrium	*78.9*					*30.0-136*	*11/15/2024 14:02*	WG2396110

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.71		0.382	0.532	11/15/2024 14:02	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.481		0.280	0.496	0.257	0.182	11/14/2024 19:33	WG2399468
(T) Barium-133	*90.6*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.03		0.289	0.511	0.534	0.279	11/16/2024 10:58	WG2397041
(T) Barium	*81.1*					*30.0-143*	*11/16/2024 10:58*	WG2397041
(T) Yttrium	*105*					*30.0-136*	*11/16/2024 10:58*	WG2397041

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.41		0.413	0.634	11/16/2024 10:58	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.381		0.295	0.500	0.341	0.230	11/14/2024 19:33	WG2399468
(T) Barium-133	*98.3*					*30.0-143*	*11/14/2024 19:33*	WG2399468

HJ03767-10 SAMPLE RESULTS - 10

Collected date/time: 10/17/24 14:30 L1791348

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.336	U	0.263	0.478	0.526	0.274	11/16/2024 10:58	WG2397041
(T) Barium	*92.5*					*30.0-143*	*11/16/2024 10:58*	WG2397041
(T) Yttrium	*92.1*					*30.0-136*	*11/16/2024 10:58*	WG2397041

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.000	U	0.318	0.671	11/16/2024 10:58	WG2399468

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.110	U	0.178	0.366	0.416	0.272	11/14/2024 19:33	WG2399468
(T) Barium-133	*100*					*30.0-143*	*11/14/2024 19:33*	WG2399468

Method Blank (MB)

(MB) R4149252-1 11/14/24 22:40

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.167	J	0.167	0.318	0.167
(T) Barium	*115*		*115*		
(T) Yttrium	*96.1*		*96.1*		

L1791348-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1791348-01 11/15/24 14:02 • (DUP) R4149252-3 11/14/24 22:40

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.469	0.294	0.561	0.293	0.108	0.277	0.540	0.286	125	0.893	U	20	3
(T) Barium	*93.9*				*93.8*	*93.8*							
(T) Yttrium	*82.0*				*95.7*	*95.7*							

Laboratory Control Sample (LCS)

(LCS) R4149252-2 11/14/24 22:40

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.98	99.5	80.0-120	
(T) Barium			*114*		
(T) Yttrium			*89.9*		

L1791120-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791120-06 11/19/24 17:47 • (MS) R4149252-6 11/19/24 17:47 • (MSD) R4149252-7 11/19/24 17:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	12.8	18.7	19.8	58.3	69.4	1	70.0-130	J6	J6	5.78		20
(T) Barium		*94.2*			*80.8*	*83.0*							
(T) Yttrium		*112*			*114*	*113*							

Method Blank (MB)

(MB) R4148063-1 11/16/24 10:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.190	U	0.142	0.288	0.151
(T) Barium	*94.6*		*94.6*		
(T) Yttrium	*97.4*		*97.4*		

L1792020-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1792020-08 11/16/24 14:09 • (DUP) R4148063-5 11/16/24 10:58

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.874	0.307	0.561	0.293	0.150	0.363	0.704	0.367	141	1.52	U	20	3
(T) Barium	*89.2*				*91.6*	*91.6*							
(T) Yttrium	*86.4*				*99.2*	*99.2*							

Laboratory Control Sample (LCS)

(LCS) R4148063-2 11/16/24 10:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.77	115	80.0-120	
(T) Barium			*87.9*		
(T) Yttrium			*100*		

L1792020-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792020-05 11/16/24 14:09 • (MS) R4148063-3 11/16/24 10:58 • (MSD) R4148063-4 11/16/24 10:58

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.277	9.88	11.0	96.0	107	1	70.0-130			10.5		20
(T) Barium		*97.4*			*92.2*	*83.5*							
(T) Yttrium		*111*			*100*	*118*							

Method Blank (MB)

(MB) R4147734-1 11/14/24 19:33

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00165	U	0.0217	0.0514	0.0381
(T) Barium-133	*95.2*		*95.2*		

L1795811-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1795811-06 11/14/24 19:33 • (DUP) R4147734-5 11/14/24 19:33

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.477	0.303	0.311	0.212	0.207	0.267	0.377	0.247	78.8	0.667	J	20	3
(T) Barium-133	*95.4*				*92.9*	*92.9*							

Laboratory Control Sample (LCS)

(LCS) R4147734-2 11/14/24 19:33

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.18	104	80.0-120	
(T) Barium-133			*90.3*		

L1791381-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791381-02 11/14/24 19:33 • (MS) R4147734-3 11/14/24 19:33 • (MSD) R4147734-4 11/14/24 19:33

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.139	19.2	20.2	96.0	101	1	75.0-125			4.93		20
(T) Barium-133		*90.5*			*97.8*	*89.9*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ03767

L1791348

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

Sample: HJ03767-01
Name: G61S

Sampled: 10/17/24 13:10
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 13:10	

Sample: HJ03767-02
Name: G60S

Sampled: 10/17/24 11:56
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 11:56	

Sample: HJ03767-03
Name: G60L

Sampled: 10/17/24 11:02
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 11:02	

Sample: HJ03767-04
Name: OR03D

Sampled: 10/17/24 12:28
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 12:28	

Sample: HJ03767-05
Name: OR04D

Sampled: 10/17/24 11:16
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 11:16	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ03767

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1791348

Sample: HJ03767-06
Name: OM23D

Sampled: 10/17/24 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 13:25	

Sample: HJ03767-07
Name: OM12

Sampled: 10/17/24 13:07
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 13:07	

Sample: HJ03767-08
Name: OM12D

Sampled: 10/17/24 12:04
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 12:04	

Sample: HJ03767-09
Name: OM25S

Sampled: 10/17/24 14:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 14:20	

Sample: HJ03767-10
Name: EB #1 10/17/24

Sampled: 10/17/24 14:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/24 16:00	04/15/25 14:30	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ03767

B229

L1791348

7794086007111 Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

17.4+0.3-17.7 TLA9

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/21/24 Total # of Containers: 10 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	10/21/24 1250	C Rodeur	10.22.24 0930

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

ANALYTICAL REPORT

November 25, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1792125
Samples Received:	10/24/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

HJ04301-01 L1792125-01 Non-Potable Water

Collected by | Collected date/time 10/22/24 14:40 | Received date/time 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397854	1	11/11/24 09:24	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399979	1	11/12/24 13:02	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399979	1	11/12/24 13:02	11/14/24 21:42	ZRG	Mt. Juliet, TN

HJ04301-02 L1792125-02 Non-Potable Water

Collected by | Collected date/time 10/22/24 13:41 | Received date/time 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397854	1	11/11/24 09:24	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399979	1	11/12/24 13:02	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399979	1	11/12/24 13:02	11/14/24 21:42	ZRG	Mt. Juliet, TN

HJ04301-03 L1792125-03 Non-Potable Water

Collected by | Collected date/time 10/22/24 13:05 | Received date/time 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397854	1	11/11/24 09:24	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399979	1	11/12/24 13:02	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399979	1	11/12/24 13:02	11/14/24 21:42	ZRG	Mt. Juliet, TN

HJ04301-04 L1792125-04 Non-Potable Water

Collected by | Collected date/time 10/22/24 14:40 | Received date/time 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397854	1	11/11/24 09:24	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399979	1	11/12/24 13:02	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399979	1	11/12/24 13:02	11/14/24 21:42	ZRG	Mt. Juliet, TN

HJ04301-05 L1792125-05 Non-Potable Water

Collected by | Collected date/time 10/22/24 15:40 | Received date/time 10/24/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397854	1	11/11/24 09:24	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2399979	1	11/12/24 13:02	11/19/24 17:47	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2399979	1	11/12/24 13:02	11/14/24 21:42	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

HJ04301-01 SAMPLE RESULTS - 01

Collected date/time: 10/22/24 14:40 L1792125

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.841		0.297	0.507	0.495	0.260	11/19/2024 17:47	WG2397854
(T) Barium	*92.8*					*30.0-143*	*11/19/2024 17:47*	WG2397854
(T) Yttrium	*95.9*					*30.0-136*	*11/19/2024 17:47*	WG2397854

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.12		0.379	0.543	11/19/2024 17:47	WG2399979

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.281		0.236	0.459	0.223	0.184	11/14/2024 21:42	WG2399979
(T) Barium-133	*71.9*					*30.0-143*	*11/14/2024 21:42*	WG2399979

HJ04301-02 SAMPLE RESULTS - 02

Collected date/time: 10/22/24 13:41 L1792125

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.930		0.410	0.703	0.692	0.362	11/19/2024 17:47	WG2397854
(T) Barium	*93.4*					*30.0-143*	*11/19/2024 17:47*	WG2397854
(T) Yttrium	*96.0*					*30.0-136*	*11/19/2024 17:47*	WG2397854

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.49		0.556	0.795	11/19/2024 17:47	WG2399979

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.558		0.376	0.706	0.391	0.270	11/14/2024 21:42	WG2399979
(T) Barium-133	*76.9*					*30.0-143*	*11/14/2024 21:42*	WG2399979

HJ04301-03 SAMPLE RESULTS - 03

Collected date/time: 10/22/24 13:05 L1792125

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0538	U	0.248	0.446	0.434	0.228	11/19/2024 17:47	WG2397854
(T) Barium	*106*					*30.0-143*	*11/19/2024 17:47*	WG2397854
(T) Yttrium	*104*					*30.0-136*	*11/19/2024 17:47*	WG2397854

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.114	U	0.322	0.591	11/19/2024 17:47	WG2399979

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0607	U	0.206	0.259	0.401	0.292	11/14/2024 21:42	WG2399979
(T) Barium-133	*70.9*					*30.0-143*	*11/14/2024 21:42*	WG2399979

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.785		0.230	0.443	0.378	0.201	11/19/2024 17:47	WG2397854
(T) Barium	*112*					*30.0-143*	*11/19/2024 17:47*	WG2397854
(T) Yttrium	*87.3*					*30.0-136*	*11/19/2024 17:47*	WG2397854

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.13		0.369	0.503	11/19/2024 17:47	WG2399979

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.347		0.289	0.530	0.332	0.235	11/14/2024 21:42	WG2399979
(T) Barium-133	*81.4*					*30.0-143*	*11/14/2024 21:42*	WG2399979

HJ04301-05 SAMPLE RESULTS - 05

Collected date/time: 10/22/24 15:40 L1792125

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.361	J	0.213	0.415	0.364	0.193	11/19/2024 17:47	WG2397854
(T) Barium	*95.6*					*30.0-143*	*11/19/2024 17:47*	WG2397854
(T) Yttrium	*107*					*30.0-136*	*11/19/2024 17:47*	WG2397854

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.454		0.268	0.449	11/19/2024 17:47	WG2399979

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0931	U	0.162	0.261	0.263	0.195	11/14/2024 21:42	WG2399979
(T) Barium-133	*80.2*					*30.0-143*	*11/14/2024 21:42*	WG2399979

Method Blank (MB)

(MB) R4149273-1 11/19/24 17:47

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.249	U	0.171	0.306	0.160
(T) Barium	*115*		*115*		
(T) Yttrium	*100*		*100*		

L1792125-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1792125-03 11/19/24 17:47 • (DUP) R4149273-5 11/19/24 17:47

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0538	0.248	0.434	0.228	0.549	0.406	0.693	0.360	164	1.04	J	20	3
(T) Barium	*106*				*106*	*106*							
(T) Yttrium	*104*				*103*	*103*							

Laboratory Control Sample (LCS)

(LCS) R4149273-2 11/19/24 17:47

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.06	81.2	80.0-120	
(T) Barium			*106*		
(T) Yttrium			*89.4*		

L1792020-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792020-10 11/19/24 17:47 • (MS) R4149273-3 11/19/24 17:47 • (MSD) R4149273-4 11/19/24 17:47

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.276	9.14	9.07	88.7	87.9	1	70.0-130			0.824		20
(T) Barium		*115*			*107*	*114*							
(T) Yttrium		*104*			*105*	*110*							

Method Blank (MB)

(MB) R4147823-1 11/14/24 21:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00563	U	0.0116	0.0220	0.0166
(T) Barium-133	*85.9*		*85.9*		

L1792125-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1792125-05 11/14/24 21:42 • (DUP) R4147823-5 11/14/24 21:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0931	0.162	0.263	0.195	-0.176	0.284	0.665	0.434	200	0.822	U	20	3
(T) Barium-133	*80.2*				*58.4*	*58.4*							

Laboratory Control Sample (LCS)

(LCS) R4147823-2 11/14/24 21:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.24	105	80.0-120	
(T) Barium-133			*86.4*		

L1792125-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792125-01 11/14/24 21:42 • (MS) R4147823-3 11/14/24 21:42 • (MSD) R4147823-4 11/14/24 21:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.281	18.9	19.1	93.1	94.0	1	75.0-125			1.00		20
(T) Barium-133		*71.9*			*59.0*	*71.4*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04301

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

K007

L1792125

Sample: HJ04301-01
Name: OR14D

Sampled: 10/22/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/04/24 16:00	04/20/25 14:40	

Sample: HJ04301-02
Name: P60

Sampled: 10/22/24 13:41
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/04/24 16:00	04/20/25 13:41	

Sample: HJ04301-03
Name: G64L

Sampled: 10/22/24 13:05
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/04/24 16:00	04/20/25 13:05	

Sample: HJ04301-04
Name: G64S

Sampled: 10/22/24 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/04/24 16:00	04/20/25 14:40	

Sample: HJ04301-05
Name: G62L

Sampled: 10/22/24 15:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/04/24 16:00	04/20/25 15:40	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04301

L1792125

97

13.2+0.3=13.5 MBAP

Sample Receipt Checklist

			If Applicable	
COC Seal Present/Intact:	Y	N	VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y	N	Pres. Correct/Check:	Y N
Bottles arrive intact:	Y	N		
Correct bottles used:	Y	N		
Sufficient volume sent:	Y	N		
RA Screen <0.5 mR/hr:	Y	N		

TPH 6033860

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/23/24 Total # of Containers: 5 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	10/23/24 1200	Hailey Robertson	10/24/24 0900

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK ASH POND NO. 1 AND ASH POND NO. 2
DC-845-2021-202

ANALYTICAL REPORT

December 09, 2024

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1792986
Samples Received:	10/25/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

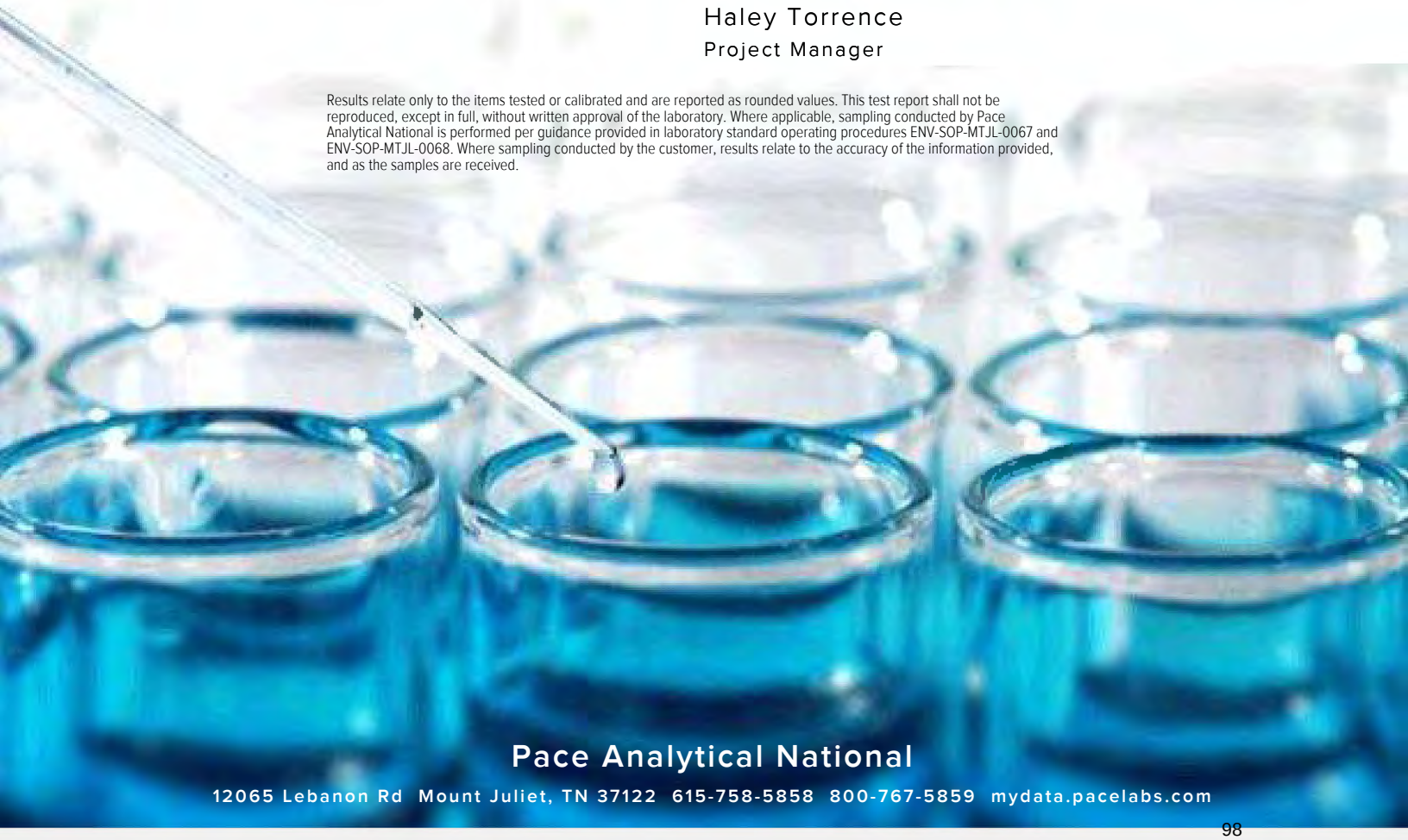


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SAMPLE SUMMARY

HJ04568-01 L1792986-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/23/24 11:20	10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-02 L1792986-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/23/24 13:48	10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-03 L1792986-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/23/24 15:08	10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-04 L1792986-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/23/24 15:08	10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-05 L1792986-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/23/24 13:45	10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-06 L1792986-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/23/24 12:35	10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HJ04568-07 L1792986-07 Non-Potable Water

Collected by | Collected date/time 10/23/24 11:35 | Received date/time 10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-08 L1792986-08 Non-Potable Water

Collected by | Collected date/time 10/23/24 11:35 | Received date/time 10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/20/24 16:35	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/15/24 14:42	ZRG	Mt. Juliet, TN

HJ04568-09 L1792986-09 Non-Potable Water

Collected by | Collected date/time 10/23/24 14:59 | Received date/time 10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/22/24 11:55	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/22/24 11:55	ZRG	Mt. Juliet, TN

HJ04568-10 L1792986-10 Non-Potable Water

Collected by | Collected date/time 10/23/24 11:52 | Received date/time 10/25/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2401028	1	11/13/24 15:27	11/22/24 11:55	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2401028	1	11/13/24 15:27	11/22/24 11:55	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/25/24 16:06
Level II Report - Version 2: 12/03/24 15:02

Project Narrative

HJ04568-01 SAMPLE RESULTS - 01

Collected date/time: 10/23/24 11:20 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.276	U	0.448	0.745	0.772	0.402	11/20/2024 16:35	WG2397991
(T) Barium	*92.8*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*94.2*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.276	U	0.455	0.819	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0350	U	0.0767	0.140	0.272	0.202	11/15/2024 14:42	WG2401028
(T) Barium-133	*71.9*					*30.0-143*	*11/15/2024 14:42*	WG2401028

HJ04568-02 SAMPLE RESULTS - 02

Collected date/time: 10/23/24 13:48 L1792986

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	-0.0556	U	0.501	0.831	0.874	0.457	11/20/2024 16:35	WG2397991
(T) Barium	*75.0*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*97.4*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.558	J	0.601	0.910	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.558		0.332	0.707	0.254	0.199	11/15/2024 14:42	WG2401028
(T) Barium-133	*69.7*					*30.0-143*	*11/15/2024 14:42*	WG2401028

HJ04568-03 SAMPLE RESULTS - 03

Collected date/time: 10/23/24 15:08 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.372	J	0.368	0.610	0.632	0.330	11/20/2024 16:35	WG2397991
(T) Barium	*89.8*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*75.6*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.452	J	0.398	0.685	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0801	U	0.152	0.240	0.264	0.207	11/15/2024 14:42	WG2401028
(T) Barium-133	*67.4*					*30.0-143*	*11/15/2024 14:42*	WG2401028

HJ04568-04 SAMPLE RESULTS - 04

Collected date/time: 10/23/24 15:08 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.551	J	0.329	0.561	0.558	0.293	11/20/2024 16:35	WG2397991
(T) Barium	*82.3*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*88.6*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.627		0.360	0.612	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0764	U	0.145	0.233	0.252	0.198	11/15/2024 14:42	WG2401028
(T) Barium-133	*70.2*					*30.0-143*	*11/15/2024 14:42*	WG2401028

SAMPLE RESULTS - 05

HJ04568-05
Collected date/time: 10/23/24 13:45
L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.175	J	0.221	0.430	0.383	0.202	11/20/2024 16:35	WG2397991
(T) Barium	*93.8*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*96.1*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.430	J	0.308	0.433	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.254		0.214	0.399	0.202	0.167	11/15/2024 14:42	WG2401028
(T) Barium-133	*76.6*					*30.0-143*	*11/15/2024 14:42*	WG2401028

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HJ04568-06 SAMPLE RESULTS - 06

Collected date/time: 10/23/24 12:35 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.281	J	0.293	0.505	0.489	0.257	11/20/2024 16:35	WG2397991
(T) Barium	*101*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*87.9*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.343	J	0.315	0.530	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0618	U	0.117	0.199	0.204	0.160	11/15/2024 14:42	WG2401028
(T) Barium-133	*86.6*					*30.0-143*	*11/15/2024 14:42*	WG2401028

HJ04568-07 SAMPLE RESULTS - 07

Collected date/time: 10/23/24 11:35 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.677		0.298	0.546	0.487	0.259	11/20/2024 16:35	WG2397991
(T) Barium	*68.9*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*99.1*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.21		0.399	0.511	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.532		0.266	0.548	0.155	0.128	11/15/2024 14:42	WG2401028
(T) Barium-133	*110*					*30.0-143*	*11/15/2024 14:42*	WG2401028

HJ04568-08 SAMPLE RESULTS - 08

Collected date/time: 10/23/24 11:35 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.885		0.233	0.437	0.366	0.194	11/20/2024 16:35	WG2397991
(T) Barium	*99.3*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*95.0*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.05		0.282	0.410	11/20/2024 16:35	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.161	J	0.159	0.234	0.185	0.145	11/15/2024 14:42	WG2401028
(T) Barium-133	*111*					*30.0-143*	*11/15/2024 14:42*	WG2401028

HJ04568-09 SAMPLE RESULTS - 09

Collected date/time: 10/23/24 14:59 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0797	U	0.220	0.428	0.375	0.199	11/20/2024 16:35	WG2397991
(T) Barium	*91.5*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*99.7*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.591		0.402	0.523	11/22/2024 11:55	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.512		0.336	0.599	0.364	0.241	11/22/2024 11:55	WG2401028
(T) Barium-133	*111*					*30.0-143*	*11/22/2024 11:55*	WG2401028

HJ04568-10 SAMPLE RESULTS - 10

Collected date/time: 10/23/24 11:52 L1792986

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.271	J	0.302	0.503	0.502	0.262	11/20/2024 16:35	WG2397991
(T) Barium	*97.6*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*99.5*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.381	J	0.350	0.571	11/22/2024 11:55	WG2401028

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.110	J	0.176	0.248	0.273	0.196	11/22/2024 11:55	WG2401028
(T) Barium-133	*118*					*30.0-143*	*11/22/2024 11:55*	WG2401028

WG2397991 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1792986-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R4149278-1 11/20/24 16:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.213	U	0.245	0.438	0.230
(T) Barium	*78.2*		*78.2*		
(T) Yttrium	*76.8*		*76.8*		

L1793620-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793620-01 11/20/24 16:35 • (DUP) R4149278-5 11/20/24 16:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0529	0.255	0.413	0.219	0.0780	0.368	0.638	0.333	38.2	0.0559	U	20	3
(T) Barium	*96.6*				*107*	*107*							
(T) Yttrium	*88.8*				*108*	*108*							

Laboratory Control Sample (LCS)

(LCS) R4149278-2 11/20/24 16:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.18	104	80.0-120	
(T) Barium			*89.9*		
(T) Yttrium			*86.0*		

L1792986-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792986-03 11/20/24 16:35 • (MS) R4149278-3 11/20/24 16:35 • (MSD) R4149278-4 11/20/24 16:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.372	10.5	8.78	102	84.1	1	70.0-130			18.1		20
(T) Barium		*89.8*			*95.1*	*96.6*							
(T) Yttrium		*75.6*			*86.1*	*85.1*							

Method Blank (MB)

(MB) R4149555-1 11/15/24 14:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.00228	U	0.00997	0.0524	0.0433
(T) Barium-133	*70.9*		*70.9*		

L1792518-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1792518-02 11/15/24 14:42 • (DUP) R4149555-5 11/15/24 14:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0993	0.154	0.240	0.182	0.214	0.251	0.346	0.238	73.1	0.389	J	20	3
(T) Barium-133	*80.9*				*77.4*	*77.4*							

Laboratory Control Sample (LCS)

(LCS) R4149555-2 11/15/24 14:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.54	111	80.0-120	
(T) Barium-133			*78.4*		

L1792986-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792986-10 11/22/24 11:55 • (MS) R4149555-3 11/15/24 14:42 • (MSD) R4149555-4 11/15/24 14:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.110	20.7	19.5	103	97.0	1	75.0-125			6.06		20
(T) Barium-133		*118*			*78.8*	*72.9*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04568

K018

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1792986

Sample: HJ04568-01
Name: G02S

Sampled: 10/22/24 11:20
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/20/25 11:20	

Sample: HJ04568-02
Name: OR11

Sampled: 10/23/24 13:48
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 13:48	

Sample: HJ04568-03
Name: OR20

Sampled: 10/23/24 15:08
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 15:08	

Sample: HJ04568-04
Name: OR20 DUP

Sampled: 10/23/24 15:08
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 15:08	

Sample: HJ04568-05
Name: BA03

Sampled: 10/23/24 13:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 13:45	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04568

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

LT929886

Sample: HJ04568-06
Name: BA02

Sampled: 10/23/24 12:35
Matrix: Ground Water
Preservative: HNO3, pH <2 -06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 12:35	

Sample: HJ04568-07
Name: BA01

Sampled: 10/23/24 11:35
Matrix: Ground Water
Preservative: HNO3, pH <2 -07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 11:35	

Sample: HJ04568-08
Name: BA01 Dup

Sampled: 10/23/24 11:35
Matrix: Ground Water
Preservative: HNO3, pH <2 -08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 11:35	

Sample: HJ04568-09
Name: BA06

Sampled: 10/23/24 14:59
Matrix: Ground Water
Preservative: HNO3, pH <2 -09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 14:59	

Sample: HJ04568-10
Name: R61L

Sampled: 10/23/24 ~~00:00~~ 1152 10/23/24
Matrix: Ground Water
Preservative: HNO3, pH <2 -10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/05/24 16:00	04/21/25 00:00	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04568

L1792986

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

total 10

7794 9550 5450

Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/24/24 Total # of Containers: 10 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
	10/24/24 1220		10-25-24 0930

Sample Temperature Upon Receipt AM3c

Sample(s) Received on Ice Y or N

Proper Bottles Received in Good Condition Y or N

Bottles Filled with Adequate Volume Y or N

Samples Received Within Hold Time Y or N

Date/Time Taken From Sample Bottle Y or N

ANALYTICAL REPORT

November 27, 2024

Pace IR - Peoria, IL

Sample Delivery Group:	L1793620
Samples Received:	10/29/2024
Project Number:	
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

[Preliminary Report]

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

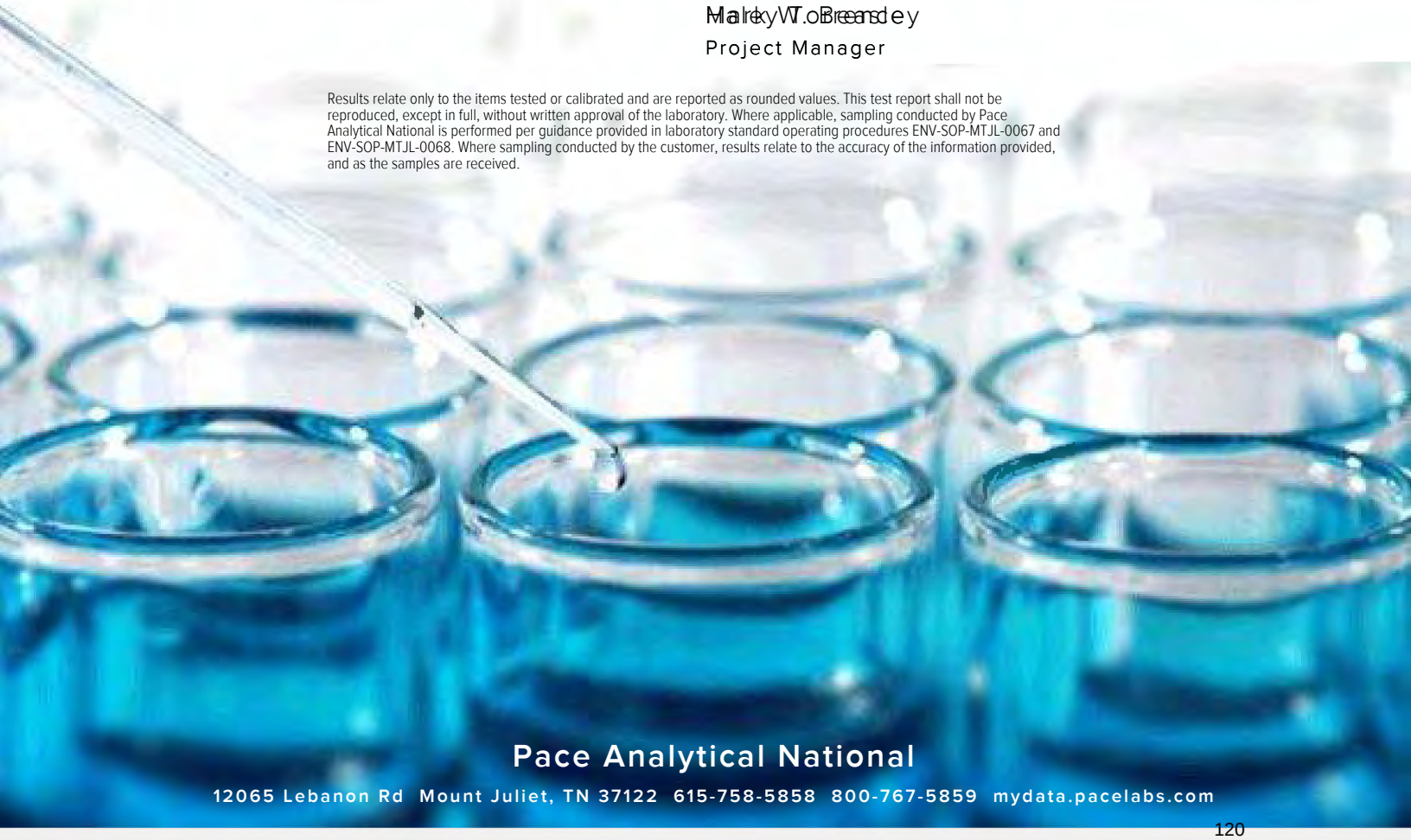


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SAMPLE SUMMARY

HJ04994-01 L1793620-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 10:38	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-02 L1793620-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 13:40	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-03 L1793620-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 12:15	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-04 L1793620-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 10:41	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2397991	1	11/13/24 15:57	11/20/24 16:35	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-05 L1793620-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 15:30	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-06 L1793620-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 12:59	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

SAMPLE SUMMARY

HJ04994-07 L1793620-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 12:30	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-08 L1793620-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 11:22	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2403691	1	11/18/24 11:15	11/21/24 17:06	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2403691	1	11/18/24 11:15	11/21/24 17:06	ASN	Mt. Juliet, TN

HJ04994-09 L1793620-09 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 15:40	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 00:40	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 00:40	ZRG	Mt. Juliet, TN

HJ04994-10 L1793620-10 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 08:49	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 00:40	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 00:40	ZRG	Mt. Juliet, TN

HJ04994-11 L1793620-11 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 09:38	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

HJ04994-12 L1793620-12 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 11:35	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HJ04994-13 L1793620-13 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 10:42	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

HJ04994-14 L1793620-14 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 12:45	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399773	1	11/13/24 15:59	11/21/24 17:05	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

HJ04994-15 L1793620-15 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 13:45	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399762	1	11/15/24 10:23	11/22/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

HJ04994-16 L1793620-16 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 14:23	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399762	1	11/15/24 10:23	11/22/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

HJ04994-17 L1793620-17 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 15:28	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399762	1	11/15/24 10:23	11/22/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 13:13	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 13:13	ZRG	Mt. Juliet, TN

HJ04994-18 L1793620-18 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 14:10	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399762	1	11/15/24 10:23	11/22/24 17:42	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 18:50	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 18:50	ZRG	Mt. Juliet, TN

SAMPLE SUMMARY

HJ04994-19 L1793620-19 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/24/24 14:10	10/29/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2399762	1	11/15/24 10:23	11/22/24 22:10	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2405861	1	11/21/24 15:09	11/23/24 00:41	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2405861	1	11/21/24 15:09	11/23/24 00:41	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

[Preliminary Report]

Mark W. Beasley
Project Manager

HJ04994-01 SAMPLE RESULTS - 01

Collected date/time: 10/24/24 10:38 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0529	U	0.255	0.469	0.413	0.219	11/20/2024 16:35	WG2397991
(T) Barium	*96.6*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*88.8*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.350	J	0.484	0.725	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.297	J	0.411	0.672	0.596	0.400	11/21/2024 17:06	WG2403691
(T) Barium-133	*55.3*					*30.0-143*	*11/21/2024 17:06*	WG2403691

HJ04994-02 SAMPLE RESULTS - 02

Collected date/time: 10/24/24 13:40 L1793620

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.476		0.226	0.424	0.351	0.186	11/20/2024 16:35	WG2397991
(T) Barium	*108*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*105*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.03		0.494	0.608	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.552		0.439	0.903	0.497	0.347	11/21/2024 17:06	WG2403691
(T) Barium-133	*60.7*					*30.0-143*	*11/21/2024 17:06*	WG2403691

HJ04994-03 SAMPLE RESULTS - 03

Collected date/time: 10/24/24 12:15 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.473		0.277	0.498	0.434	0.230	11/20/2024 16:35	WG2397991
(T) Barium	*89.8*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*89.4*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.776		0.466	0.682	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.303	J	0.375	0.651	0.526	0.351	11/21/2024 17:06	WG2403691
(T) Barium-133	*66.6*					*30.0-143*	*11/21/2024 17:06*	WG2403691

HJ04994-04 SAMPLE RESULTS - 04

Collected date/time: 10/24/24 10:41 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.788		0.337	0.619	0.521	0.276	11/20/2024 16:35	WG2397991
(T) Barium	*106*					*30.0-143*	*11/20/2024 16:35*	WG2397991
(T) Yttrium	*96.9*					*30.0-136*	*11/20/2024 16:35*	WG2397991

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.04		0.438	0.638	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.255	J	0.279	0.446	0.369	0.264	11/21/2024 17:06	WG2403691
(T) Barium-133	*65.1*					*30.0-143*	*11/21/2024 17:06*	WG2403691

HJ04994-05 SAMPLE RESULTS - 05

Collected date/time: 10/24/24 15:30 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.122	U	0.288	0.505	0.511	0.267	11/21/2024 17:05	WG2399773
(T) Barium	*112*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*84.5*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.141	U	0.313	0.586	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0198	U	0.123	0.158	0.286	0.217	11/21/2024 17:06	WG2403691
(T) Barium-133	*77.0*					*30.0-143*	*11/21/2024 17:06*	WG2403691

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HJ04994-06 SAMPLE RESULTS - 06

Collected date/time: 10/24/24 12:59 L1793620

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.678		0.356	0.589	0.616	0.321	11/21/2024 17:05	WG2399773
(T) Barium	*86.5*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*83.7*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.834		0.439	0.728	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.156	J	0.257	0.406	0.388	0.256	11/21/2024 17:06	WG2403691
(T) Barium-133	*80.8*					*30.0-143*	*11/21/2024 17:06*	WG2403691

SAMPLE RESULTS - 07

HJ04994-07
Collected date/time: 10/24/24 12:30
L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.312	U	0.366	0.595	0.657	0.342	11/21/2024 17:05	WG2399773
(T) Barium	*91.2*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*81.9*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.265	U	0.462	0.755	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.265	J	0.282	0.529	0.371	0.260	11/21/2024 17:06	WG2403691
(T) Barium-133	*64.4*					*30.0-143*	*11/21/2024 17:06*	WG2403691

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

HJ04994-08 SAMPLE RESULTS - 08

Collected date/time: 10/24/24 11:22 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.34	J	0.833	1.24	1.44	0.754	11/21/2024 17:05	WG2399773
(T) Barium	*63.0*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*73.3*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.66		0.875	1.47	11/21/2024 17:06	WG2403691

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.321		0.267	0.440	0.307	0.217	11/21/2024 17:06	WG2403691
(T) Barium-133	*75.7*					*30.0-143*	*11/21/2024 17:06*	WG2403691

HJ04994-09 SAMPLE RESULTS - 09

Collected date/time: 10/24/24 15:40 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.287	U	0.322	0.549	0.583	0.305	11/21/2024 17:05	WG2399773
(T) Barium	*96.3*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*80.6*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.166	U	0.388	0.660	11/23/2024 00:40	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.166	J	0.217	0.318	0.310	0.215	11/23/2024 00:40	WG2405861
(T) Barium-133	*110*					*30.0-143*	*11/23/2024 00:40*	WG2405861

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.424	J	0.346	0.581	0.606	0.317	11/21/2024 17:05	WG2399773
(T) Barium	*86.7*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*81.9*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.896		0.476	0.707	11/23/2024 00:40	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.472		0.327	0.575	0.364	0.241	11/23/2024 00:40	WG2405861
(T) Barium-133	*114*					*30.0-143*	*11/23/2024 00:40*	WG2405861

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.484	J	0.445	0.722	0.782	0.410	11/21/2024 17:05	WG2399773
(T) Barium	*66.1*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*78.4*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.845		0.504	0.818	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.361		0.237	0.496	0.239	0.167	11/23/2024 13:13	WG2405861
(T) Barium-133	*114*					*30.0-143*	*11/23/2024 13:13*	WG2405861

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.925	J	0.550	0.947	0.957	0.505	11/21/2024 17:05	WG2399773
(T) Barium	*62.1*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*80.9*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.87		0.656	0.985	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.947		0.357	0.735	0.232	0.164	11/23/2024 13:13	WG2405861
(T) Barium-133	*116*					*30.0-143*	*11/23/2024 13:13*	WG2405861

HJ04994-13 SAMPLE RESULTS - 13

Collected date/time: 10/24/24 10:42 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.822	J	0.501	0.837	0.871	0.457	11/21/2024 17:05	WG2399773
(T) Barium	*73.0*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*96.9*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.00		0.553	0.933	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.180	J	0.235	0.355	0.335	0.227	11/23/2024 13:13	WG2405861
(T) Barium-133	*113*					*30.0-143*	*11/23/2024 13:13*	WG2405861

HJ04994-14 SAMPLE RESULTS - 14

Collected date/time: 10/24/24 12:45 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.46		0.669	1.16	1.15	0.603	11/21/2024 17:05	WG2399773
(T) Barium	*94.9*					*30.0-143*	*11/21/2024 17:05*	WG2399773
(T) Yttrium	*94.6*					*30.0-136*	*11/21/2024 17:05*	WG2399773

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.94		0.759	1.22	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.482		0.358	0.782	0.416	0.272	11/23/2024 13:13	WG2405861
(T) Barium-133	*122*					*30.0-143*	*11/23/2024 13:13*	WG2405861

HJ04994-15 SAMPLE RESULTS - 15

Collected date/time: 10/24/24 13:45 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.58		0.795	1.37	1.51	0.792	11/22/2024 17:42	WG2399762
(T) Barium	*88.2*					*30.0-143*	*11/22/2024 17:42*	WG2399762
(T) Yttrium	*74.9*					*30.0-136*	*11/22/2024 17:42*	WG2399762

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.63		0.918	1.56	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.05		0.459	0.974	0.388	0.258	11/23/2024 13:13	WG2405861
(T) Barium-133	*109*					*30.0-143*	*11/23/2024 13:13*	WG2405861

HJ04994-16 SAMPLE RESULTS - 16

Collected date/time: 10/24/24 14:23 L1793620

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	2.78		1.01	1.76	1.88	0.999	11/22/2024 17:42	WG2399762
(T) Barium	*51.6*					*30.0-143*	*11/22/2024 17:42*	WG2399762
(T) Yttrium	*79.0*					*30.0-136*	*11/22/2024 17:42*	WG2399762

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	4.18		1.12	1.91	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.40		0.493	1.12	0.359	0.238	11/23/2024 13:13	WG2405861
(T) Barium-133	*107*					*30.0-143*	*11/23/2024 13:13*	WG2405861

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.17		0.438	0.802	0.821	0.435	11/22/2024 17:42	WG2399762
(T) Barium	*79.9*					*30.0-143*	*11/22/2024 17:42*	WG2399762
(T) Yttrium	*73.0*					*30.0-136*	*11/22/2024 17:42*	WG2399762

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.17		0.613	0.883	11/23/2024 13:13	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.00		0.429	0.942	0.325	0.225	11/23/2024 13:13	WG2405861
(T) Barium-133	*110*					*30.0-143*	*11/23/2024 13:13*	WG2405861

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.362	J	0.247	0.481	0.475	0.252	11/22/2024 17:42	WG2399762
(T) Barium	*82.2*					*30.0-143*	*11/22/2024 17:42*	WG2399762
(T) Yttrium	*87.2*					*30.0-136*	*11/22/2024 17:42*	WG2399762

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.430	J	0.256	0.483	11/23/2024 18:50	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0675	J	0.0690	0.147	0.0878	0.0665	11/23/2024 18:50	WG2405861
(T) Barium-133	*104*					*30.0-143*	*11/23/2024 18:50*	WG2405861

HJ04994-19 SAMPLE RESULTS - 19

Collected date/time: 10/24/24 14:10 L1793620

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.138	U	0.231	0.447	0.451	0.237	11/22/2024 22:10	WG2399762
(T) Barium	*85.1*					*30.0-143*	*11/22/2024 22:10*	WG2399762
(T) Yttrium	*111*					*30.0-136*	*11/22/2024 22:10*	WG2399762

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.334	J	0.278	0.491	11/23/2024 00:41	WG2405861

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.196		0.154	0.452	0.194	0.128	11/23/2024 00:41	WG2405861
(T) Barium-133	*98.3*					*30.0-143*	*11/23/2024 00:41*	WG2405861

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4149278-1 11/20/24 16:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.213	U	0.245	0.438	0.230
(T) Barium	*78.2*		*78.2*		
(T) Yttrium	*76.8*		*76.8*		

L1793620-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793620-01 11/20/24 16:35 • (DUP) R4149278-5 11/20/24 16:35

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0529	0.255	0.413	0.219	0.0780	0.368	0.638	0.333	38.2	0.0559	U	20	3
(T) Barium	*96.6*				*107*	*107*							
(T) Yttrium	*88.8*				*108*	*108*							

Laboratory Control Sample (LCS)

(LCS) R4149278-2 11/20/24 16:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.18	104	80.0-120	
(T) Barium			*89.9*		
(T) Yttrium			*86.0*		

L1792986-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792986-03 11/20/24 16:35 • (MS) R4149278-3 11/20/24 16:35 • (MSD) R4149278-4 11/20/24 16:35

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.372	10.5	8.78	102	84.1	1	70.0-130			18.1		20
(T) Barium		*89.8*			*95.1*	*96.6*							
(T) Yttrium		*75.6*			*86.1*	*85.1*							

WG2399762 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1793620-15,16,17,18,19

Method Blank (MB)

(MB) R4151069-1 11/22/24 17:42

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0595	U	0.196	0.388	0.203
(T) Barium	*86.3*		*86.3*		
(T) Yttrium	*89.6*		*89.6*		

L1793620-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1793620-19 11/22/24 22:10 • (DUP) R4151069-5 11/22/24 17:42

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.138	0.231	0.451	0.237	0.359	0.362	0.699	0.366	89.0	0.514	J	20	3
(T) Barium	*85.1*				*101*	*101*							
(T) Yttrium	*111*				*88.4*	*88.4*							

Laboratory Control Sample (LCS)

(LCS) R4151069-2 11/22/24 17:42

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.33	107	80.0-120	
(T) Barium			*73.7*		
(T) Yttrium			*88.6*		

L1793620-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793620-18 11/22/24 17:42 • (MS) R4151069-3 11/22/24 17:42 • (MSD) R4151069-4 11/22/24 17:42

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.362	9.51	8.75	91.5	83.9	1	70.0-130			8.30		20
(T) Barium		*82.2*			*68.9*	*96.4*							
(T) Yttrium		*87.2*			*98.3*	*108*							

WG2399773 QUALITY CONTROL SUMMARY

Radiochemistry by Method 904/9320 L1793620-05,06,07,08,09,10,11,12,13,14

Method Blank (MB)

(MB) R4151075-1 11/21/24 17:05

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.0550	U	0.157	0.281	0.148
(T) Barium	*97.2*		*97.2*		
(T) Yttrium	*97.1*		*97.1*		

L1793620-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793620-05 11/21/24 17:05 • (DUP) R4151075-5 11/21/24 17:05

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.122	0.288	0.511	0.267	0.0684	0.400	0.710	0.370	55.9	0.108	U	20	3
(T) Barium	*112*				*112*	*112*							
(T) Yttrium	*84.5*				*90.3*	*90.3*							

Laboratory Control Sample (LCS)

(LCS) R4151075-2 11/21/24 17:05

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.75	95.1	80.0-120	
(T) Barium			*87.7*		
(T) Yttrium			*95.8*		

L1793620-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793620-06 11/21/24 17:05 • (MS) R4151075-3 11/21/24 17:05 • (MSD) R4151075-4 11/21/24 17:05

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.678	10.7	8.75	100	80.7	1	70.0-130			20.0		20
(T) Barium		*86.5*			*97.7*	*98.1*							
(T) Yttrium		*83.7*			*70.7*	*86.1*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1793620-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R4150386-1 11/21/24 17:06

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00817	U	0.0316	0.0719	0.0564
(T) Barium-133	*68.7*		*68.7*		

L1793620-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1793620-08 11/21/24 17:06 • (DUP) R4150386-3 11/21/24 17:06

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.321	0.267	0.307	0.217	0.141	0.264	0.407	0.266	78.2	0.481	U	20	3
(T) Barium-133	*75.7*				*80.3*	*80.3*							

Laboratory Control Sample (LCS)

(LCS) R4150386-2 11/21/24 17:06

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.88	97.5	80.0-120	
(T) Barium-133			*86.5*		

L1792180-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1792180-01 11/25/24 13:33 • (MS) R4150386-4 11/25/24 12:32 • (MSD) R4150386-5 11/25/24 12:32

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	92.9	92.4	109	0.000	78.0	1	75.0-125	V		16.0		20
(T) Barium-133		*89.9*			*93.7*	*85.5*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method SM7500Ra B M

L1793620-09,10,11,12,13,14,15,16,17,18,19

Method Blank (MB)

(MB) R4150614-2 11/23/24 00:41

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00938	J	0.0138	0.0219	0.0166
(T) Barium-133	*112*		*112*		

L1793620-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1793620-09 11/23/24 00:40 • (DUP) R4150614-1 11/23/24 00:39

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.166	0.217	0.310	0.215	0.176	0.215	0.301	0.211	5.38	0.0301	J	20	3
(T) Barium-133	*110*				*116*	*116*							

Laboratory Control Sample (LCS)

(LCS) R4150614-3 11/23/24 00:41

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.68	93.6	80.0-120	
(T) Barium-133			*106*		

L1793620-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793620-12 11/23/24 13:13 • (MS) R4150614-4 11/23/24 00:41 • (MSD) R4150614-5 11/23/24 13:13

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.947	18.9	17.0	89.8	80.4	1	75.0-125			10.5		20
(T) Barium-133		*116*			*105*	*99.7*							

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04994

SENDING LABORATORY

PDC Laboratories, Inc.
2231 W Altorfer Dr
Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1793620

Sample: HJ04994-01
Name: G54L

Sampled: 10/24/24 10:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 10:38	

Sample: HJ04994-02
Name: BA04

Sampled: 10/24/24 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 13:40	

Sample: HJ04994-03
Name: BA05

Sampled: 10/24/24 12:15
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 12:15	

Sample: HJ04994-04
Name: G51S

Sampled: 10/24/24 10:41
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 10:41	

Sample: HJ04994-05
Name: Field Blank

Sampled: 10/24/24 15:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 15:30	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04994

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(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1793620

Sample: HJ04994-06
Name: OR13D

Sampled: 10/24/24 12:59
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 12:59	

Sample: HJ04994-07
Name: OR13S

Sampled: 10/24/24 12:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 12:30	

Sample: HJ04994-08
Name: OR19

Sampled: 10/24/24 11:22
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 11:22	

Sample: HJ04994-09
Name: EB #2

Sampled: 10/24/24 15:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 15:40	

Sample: HJ04994-10
Name: OM07

Sampled: 10/24/24 08:49
Matrix: Ground Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 08:49	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04994

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Peoria, IL 61615
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RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1793620

Sample: HJ04994-11
Name: OR06A

Sampled: 10/24/24 09:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-11

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 09:38	

Sample: HJ04994-12
Name: OM22D

Sampled: 10/24/24 11:35
Matrix: Ground Water
Preservative: HNO3, pH <2

-12

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 11:35	

Sample: HJ04994-13
Name: OM15D

Sampled: 10/24/24 10:42
Matrix: Ground Water
Preservative: HNO3, pH <2

-13

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 10:42	

Sample: HJ04994-14
Name: OM28

Sampled: 10/24/24 12:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-14

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 12:45	

Sample: HJ04994-15
Name: OM27

Sampled: 10/24/24 13:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-15

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 13:45	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04994

SENDING LABORATORY

PDC Laboratories, Inc.
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Peoria, IL 61615
(800) 752-6651

RECEIVING LABORATORY

Pace Analytical - Mt Juliet, Tn
12065 Lebanon Rd
Mt Juliet, TN 37122
(615) 758-5858

L1793620

Sample: HJ04994-16
Name: OM26

Sampled: 10/24/24 14:23
Matrix: Ground Water
Preservative: HNO3, pH <2 -16

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 14:23	

Sample: HJ04994-17
Name: XPW01

Sampled: 10/24/24 15:28
Matrix: Ground Water
Preservative: HNO3, pH <2 -17

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 15:28	

Sample: HJ04994-18
Name: OM01

Sampled: 10/24/24 14:10
Matrix: Ground Water
Preservative: HNO3, pH <2 -18

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 14:10	

Sample: HJ04994-19
Name: OM01 Dup

Sampled: 10/24/24 14:10
Matrix: Ground Water
Preservative: HNO3, pH <2 -19

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/24 16:00	04/22/25 14:10	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

HJ04994

G008

L1793620

Sample Receipt Checklist

COC Seal Present/Intact:	✓Y N	If Applicable	
COC Signed/Accurate:	__Y__N	VOA Zero Headspace:	__Y__N
Bottles arrive intact:	__Y__N	Pres. Correct/Check:	__Y__N
Correct bottles used:	__Y__N		
Sufficient volume sent:	✓Y N		
RA Screen <0.5 mR/hr:	✓Y N		

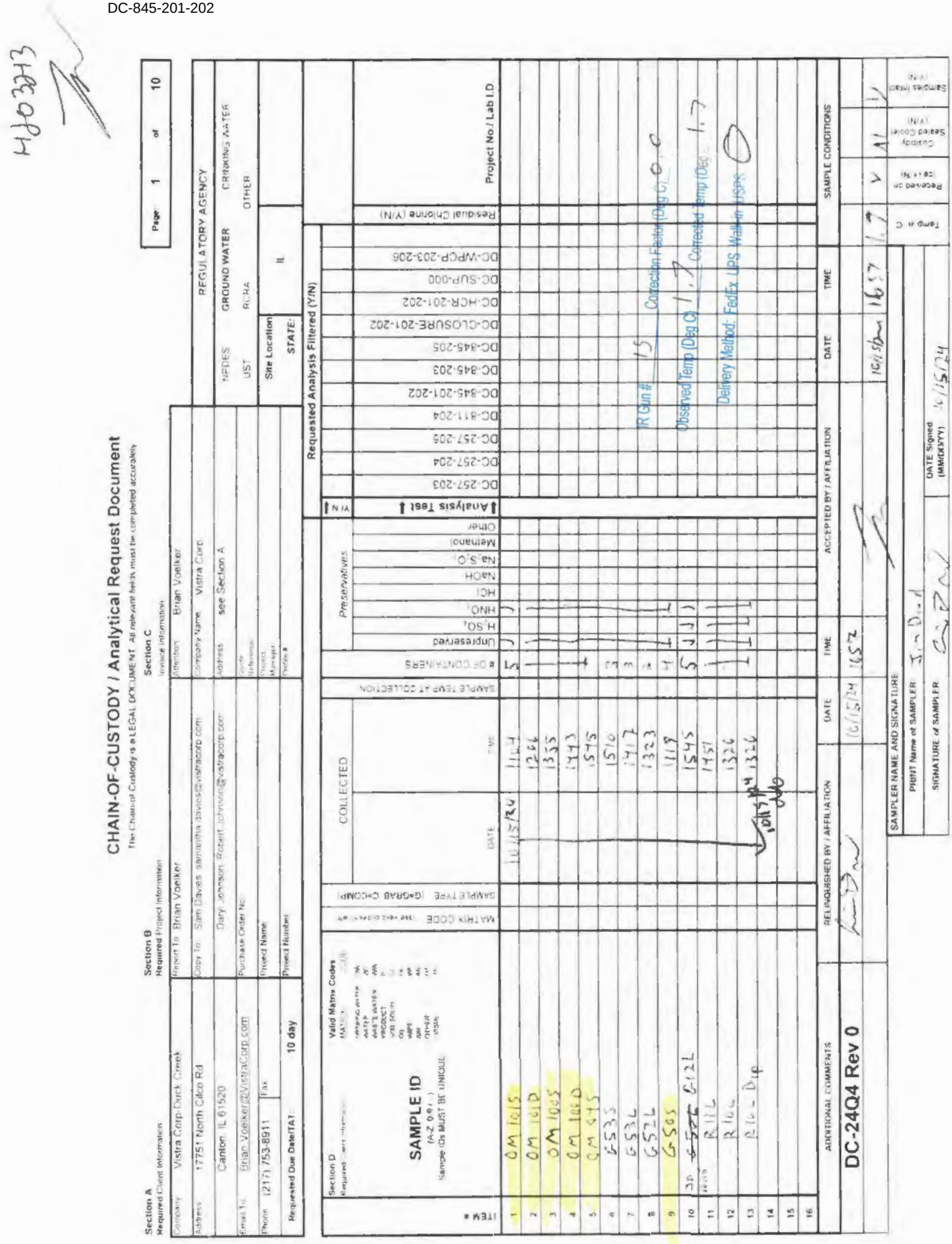
Please email results to Diane Billings at diane.billings@pacelabs.com

Date Shipped: 10/28/24 Total # of Containers: 19 Sample Origin (State): IL PO #: _____

Turn-Around Time Requested ☐ NORMAL ☐ RUSH Date Results Needed: _____

Relinquished By	Date/Time	Received By	Date/Time
[signature]	10/28/24 0945	[signature]	10/29/24 930

Sample Temperature Upon Receipt	____ °C
Sample(s) Received on Ice	Y or N
Proper Bottles Received in Good Condition	Y or N
Bottles Filled with Adequate Volume	Y or N
Samples Received Within Hold Time	Y or N
Date/Time Taken From Sample Bottle	Y or N



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A — Required Client Information

Company: Vistra Corp-Duck Creek
Address: 17751 North Cilco Rd
Canton IL 61520
Email To: Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911 Fax:
Requested Due Date/TAT: 10 day

Section B — Required Project Information

Report To: Brian Voelker
Copy To: Sam Daves samantha.daves@vistracorp.com
Dary Johnson Robert.Johnson@vistracorp.com
Purchase Order No.:
Project Name:
Project Number:

Section C — Invoice Information

Attention: Brian Voelker
Company Name: Vistra Corp
Address: see Section A
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location
STATE: IL

Valid Matrix Codes
(A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE

ITEM #	Section D Required Client Information	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No / Lab I.D
1	DM 1615			10/15/24	1154		5	J		J																			
2	DM 1610				1266		1	1		1																			
3	DM 1605				1335		1	1		1																			
4	DM 1610 D				1743		1	1		1																			
5	DM 545				1515		1	1		1																			
6	6535				1510		3	3		3																			
7	6534				1717		3	3		3																			
8	6526				1323		2	2		2																			
9	6505				1119		4	4		4																			
10	SD 6506 B12L				1545		5	5		5																			
11	R11L				1451		1	1		1																			
12	R10L				1326		1	1		1																			
13	R10 - Dup				1326		1	1		1																			
14																													
15																													
16																													

Requested Analysis Filtered (Y/N)

IR Gun # 15 Correction Factor (Deg C) 0.0
Observed Temp (Deg C) 1.7 Corrected Temp (Deg C) 1.7
Delivery Method: FedEx UPS Walk-in USPS

ADDITIONAL COMMENTS

DC-24Q4 Rev 0

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	10/15/24	1452		10/15/24	1657	1.7

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Sam Daves
SIGNATURE of SAMPLER: Sam Daves
DATE Signed (MM/DD/YY): 10/15/24

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)
1.7 | Y | N | Y

HJ035H

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information

Company	Vistra Corp-Duck Creek
Address	17751 North Cilco Rd
	Canton IL 61520
Email To	Brian.Voelker@VistraCorp.com
Phone	(217) 753-8911 Fax
Requested Due Date/TAT	10 day

Section B Required Project Information

Report To	Brian Voelker
Copy To	Sam Davies samantha.davies@vistracorp.com
	Daryl Johnson Robert.Johnson@vistracorp.com
Purchase Order No	
Project Name	
Project Number	

Section C Invoice Information

Attention	Brian Voelker
Company Name	Vistra Corp
Address	see Section A
Quote Reference	
Project Manager	
Profile #	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z 0-9 /)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GD2L	WT	G	10/16/24	1503		4	X	X	X		X																	
2	GD3L	WT	G	10/16/24	1354		5	X	X	X		X																	
3	GB3L	WT	G	10/16/24	1153		5	X	X	X		X																	
4	OM16	WT	G	10/16/24	1054		4	X		X																			
5	OM17D	WT	G	10/16/24	1144		5	X		X																			
6	OM21	WT	G	10/16/24	1315		5	X		X																			
7	OM24D	WT	G	10/16/24	1428		5	X		X																			
8	OR02	WT	G	10/16/24	1513		5	X		X																			
9	G54D	WT	G	10/16/24	1521		3	X		X																			
10	G58S	WT	G	10/16/24	1440		3	X		X																			
11	G57S	WT	G	10/16/24	1350		4	X		X																			
12	G54S	WT	G	10/16/24	1251		4	X		X																			
13	G55S	WT	G	10/16/24	1155		3	X		X																			
14	G55L	WT	G	10/16/24	1112		3	X		X																			
15	G56S	WT	G	10/16/24	1030		3	X		X																			
16	OM17	WT	G	10/16/24	1225		1			X																			

Cooler # 13 Correction Factor (Deg C) 0.0
Observed Temp (Deg C) 3.1 Corrected Temp (Deg C) 3.1
Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/16/24	1040							
					10/16/24	1610	–	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Hunter Tomberlin
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/16/24

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information:	Section B Required Project Information	Section C Invoice Information
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson, Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number:	PO No.:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G70L	GW	G	10/17/24	1027		3	X		X																		
2	G71L	GW	G	10/17/24	1123		3	X		X																		
3	G67L	GW	G		1238		3	X		X																		
4	G675				1325		3	X		X																		
5	G713				1415		3	X		X																		
6	G635				1400		3	X		X																		
7	G613				1310		3	X		X																		
8	G605				1156		4	X		X																		
9	G606				1102		4	X		X																		
10	~~OM230~~				~~1248~~		5	X		X																		
11	OM255				1345		5	X		X																		
12	OR03D				~~1004~~ 1208		5	X		X																		
13	~~OR04D~~				~~1450~~		5	X		X																		
14	OM17 OR04D				1116		5	X		X																		
15	OM23D				1325		5	X		X																		
16	G02L				1500		1	N																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/17/24	1008		10/17/24	1608	4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKI

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/24

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone:	(217) 753-8911 Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No:	
Project Name:	
Project Number:	

Section C Invoice Information

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	DM1D	GW	G	10/17/24	1307		5	X		X																		
2	DM2D				1804		5	X		X																		
3	DM2SS				1420		5	X		X																		
4	EB			10/17/24	1430		5	X		X																		FILLED AFTER DM2S
5				0900																								
6																												
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/17/24	1608		10/17/24	1609	+1.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB OESKE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

HJ04301

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	DUP4D	GW	G	10/22/24	1440		5	X		X																		
2	P6D				1341	4	4	X		X																		
3	P37L				1208		3	X		X																		
4	P36L				1119		3	X		X																		
5	P36L DUPE				1119		3	X		X																		
6	T46L	GW	G		1017		3	X		X																		
7	T45L				1042		3	X		X																		
8	T44L				1102		3	X		X																		
9	T43L				1132		3	X		X																		
10	T43L DUPE				1132		3	X		X																		
11	GG4L				1305		4	X		X																		
12	GG1S				1440		4	X		X																		
13	GG2L				1540		4	X		X																		
14																												
15																												
16																												

IR Gun # 17 Correction Factor (Deg C) -0.1

Observed Temp (Deg C) 0.7 Corrected Temp (Deg C) 0.6

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-24Q4 Rev 0		10/22/24	1639				
					10/22/24	1639	

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	X	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KYLE DIESKE

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 10/22/24

HJ 045683

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Page: 1 of 10

Section A Required Client Information:

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Sam Davies: samantha.davies@vistracorp.com
	Daryl Johnson: Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	GW6L	GW	G	10/23/24	1339		5	X	X	X		X																
2	GW6S				1230		1	X																				
3	GW2S				1120		4	X		X																		
4	OR11				1348		5	X		X																		
5	OR30				1508		3	X		X																		
6	OR30 DUP				1508		3	X		X																		
7	PG0				0939		2	X																				
8	BA03				1345		4	X		X																		
9	BA02				1235		4	X		X																		
10	BA01				1135		4	X		X																		
11	BA01 DUP				1135		4	X		X																		
12	BA06				1459		4	X		X																		
13	ARGIL			10/23/24	1152		1																					
14																												
15																												
16																												

IR Gun #: 16 Correction Factor (Deg C): +0.1

Observed Temp (Deg C): 3.0 Corrected Temp (Deg C): 3.1

Delivery Method: FedEx UPS Walk-in USPS Other

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-24Q4 Rev 0		10/23/24	1618			
					10/23/24	1618

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KAYES DESKE

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/23/24

~~H704816/CD~~
HJ04994 2nd

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A (Required Client Information)	Section B (Required Project Information)	Section C (Invoice Information)
Company: Vistra Corp-Duck Creek	Report To: Brian Voelker	Attention: Brian Voelker
Address: 17751 North Cilco Rd	Copy To: Sam Davies samantha.davies@vistracorp.com	Company Name: Vistra Corp
Canton, IL 61520	Daryl Johnson Robert.Johnson@vistracorp.com	Address: see Section A
Email To: Brian.Voelker@VistraCorp.com	Purchase Order No:	Quote Reference:
Phone: (217) 753-8911 Fax:	Project Name:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number:	Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D (Required Client Information)

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G04L	DW	G	10/24/24	1038		4	X		X																			
2	A02S				1201		3	X		X																			
3	G02S DUP				1201		3	X		X																			
4	~~G01L~~ IGNORE																												
5	X301 Pump House				1414		3	X		X																			
6	BA04				1340		4	X		X																			
7	BA05				1215		4	X		X																			
8	G01S				1041		4	X		X																			
9	P36L				1048		1	X																					
10	G00L				1003		4	X		X																			
11	Field Blank				1530		8	X	X	X		X																	
12	OR13D				1259		5	X		X																			
13	OR13S				1230		5	X		X																			
14	OR19				1122		5	X		X																			
15	Equipment Blank ± 2				1540		5	X		X																			
16	OM07				1059		5	X		X																			

R Gun #: 15 Correction Factor (Deg C): 0.0

Observed Temp (Deg C): 0.8 Corrected Temp (Deg C): 0.8

Delivery Method: FedEx UPS Walk-in USPS Other

Field Team

Filtered 100 ml

After XP002

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-24Q4 Rev 0		10/24/24	1629	Caty P. Deske	10/24/24	1629	0.8	Y	N	Y
							Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DESKE

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/24

APPENDIX B.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DUCK CREEK, ASH POND NO. 1 AND ASH POND NO. 2
DC-845-201-202

~~HJ048116 CD~~
HJ049994

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 10

Section A Required Client Information

Company:	Vistra Corp-Duck Creek
Address:	17751 North Cilco Rd
	Canton, IL 61520
Email To:	Brian.Voelker@VistraCorp.com
Phone:	(217) 753-8911 Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information

Report To:	Brian Voelker
Copy To:	Sam Davies samantha.davies@vistracorp.com
	Daryl Johnson Robert.Johnson@vistracorp.com
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-HCR-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OR06A	GW	G	10/23/24	0938		5	X		X																		
2	OM28D				1135		5	X		X																		
3	OM15D				1040		5	X		X																		
4	OM28				1245		4	X		X																		
5	OM27				1345		4	X		X																		
6	OM26				1423		4	X		X																		
7	XPW01				1528		5	X		X																		
8	OM01				1410		5	X		X																		
9	OM01 DUP				1410		5	X		X																		
10																												
11																												
12																												
13																												
14																												
15																												
16																												

Requested Analysis Filtered (Y/N)

IR Gun #: 15 Correction Factor (Deg C): 0.0

Observed Temp (Deg C): 0.8 Corrected Temp (Deg C): 0.8

Delivery Method: FedEx UPS Walk-in USPS field team

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
DC-24Q4 Rev 0		10/24/24	1629	Caty P. Drake	10/24/24	1629	0.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KALEB DEEKE

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/24/24