Luminant

Illinois Power Generating Company
1500 Eastport Plaza Drive
Collinsville, IL 62234

March 4, 2024

Illinois Environmental Protection Agency
DWPC – Permits MC#15
Attn: Part 845 Coal Combustion Residual Rule Submittal
1021 North Grand Avenue East
Springfield, IL 62794

Re: Duck Creek Power Plant Gypsum Management Facility (GMF) Pond;
IEPA ID # W0578010001-04

Dear Mr. LeCrone:

In accordance with Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.610(b)(3)(D), Illinois Power Generating Company is submitting groundwater monitoring data for the Quarter 4, 2023 sampling event at the Duck Creek Power Plant GMF Pond, identified by Illinois Environmental Protection Agency (IEPA) ID No. W0578010001-04. This data is being submitted and placed in the facility's operating record as required by 35 I.A.C. § 845.800(d)(15) within 60 days of receiving final laboratory analytical data. Results were compared with the groundwater protection standards (GWPSs) described in 35 I.A.C. § 845.600 to determine statistical exceedances of the GWPS.

The date of this submittal is considered to be the date that exceedances of the GWPSs were detected. This notification of exceedances of the GWPSs in 35 I.A.C. § 845.600 will be placed in the facility's operating record within 30 days as required by 35 I.A.C. § 845.800(d)(16).

As allowed in 35 I.A.C. § 845.650(e), an alternative source demonstration (ASD) was submitted on November 11, 2023 for the exceedances of the GWPS detected during the Quarter 2, 2023 sampling event. The IEPA provided a written response on December 6, 2023 that did not concur with the ASD. Therefore, a Corrective Measures Assessment (CMA) was initiated on December 11, 2023 in accordance with 35 I.A.C. § 845.660.

Sincerely,

Dianna Tickner

Dianna Tickner, PE, PMP
Senior Director, Demolition and Decommission

Enclosures

Groundwater Monitoring Data and Detected Exceedances, Quarter 4, 2023, GMF Pond, Duck Creek Power Plant, Canton, Illinois

RAMBOLL

ENVIRONMENT
& HEALTH

35 I.A.C. § 845.610(b)(3)(D)
GROUNDWATER MONITORING DATA AND DETECTED EXCEEDANCES
QUARTER 4, 2023
GYPSUM MANAGEMENT FACILTY (GMF) POND, DUCK CREEK POWER PLANT, CANTON, ILLINOIS

March 4, 2024

Samples were collected between October 19 and 31, 2023 and analyzed for the parameters listed in Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.600(a), calcium, and turbidity. Final laboratory analytical data was received on January 4, 2024. Since Quarter 4, 2023 results were not available for inclusion in the 2023 Annual Groundwater Monitoring and Corrective Action Report (2023 Annual Report), this document also serves as an addendum to the 2023 Annual Report.

The monitoring well locations are included in **Figure 1**. **Attachment A** summarizes the groundwater elevation data for the Quarter 4, 2023 sampling event. A groundwater elevation was not able to be obtained at monitoring location X301 for this sampling event. **Table 1** is a summary of the field parameters and analytical results. **Attachment B** contains the associated laboratory analytical reports and field data sheets for the Quarter 4, 2023 sampling event.

Statistical procedures used to evaluate groundwater results are provided in Appendix A of the Groundwater Monitoring Plan[1] provided in the operating permit application. In accordance with 35 I.A.C. § 845.610(b)(3)(B), the Quarter 4, 2023 groundwater monitoring data were evaluated for statistical exceedances over background levels for the constituents listed in 35 I.A.C. § 845.600. **Attachment C** shows the statistically derived values compared to background levels.

In accordance with 35 I.A.C. § 845.610(b)(3)(C), the statistically derived values identified as Statistical Results in **Table 2** were compared with the groundwater protection standards (GWPSs) described in 35 I.A.C. § 845.600 to determine statistical exceedances of the GWPS, as shown in **Table 2**. The date of this submittal is considered to be the date that the exceedances were detected.

As allowed in 35 I.A.C. § 845.650(e), an alternative source demonstration[2] (ASD) was submitted on November 11, 2023 for the exceedances of the GWPS detected during the Quarter 2, 2023 sampling event. The Illinois Environmental Protection Agency (IEPA) provided a written response on December 6, 2023[3] that did not concur with the ASD. Therefore, a Corrective Measures Assessment (CMA) was initiated on December 11, 2023 in accordance with 35 I.A.C. § 845.660. GWPS exceedances for subsequent events will be incorporated into the CMA on a case by case basis, as opposed to generating a new CMA. As allowed in 35 I.A.C. § 845.650(e), an ASD will be evaluated for new detected exceedances of the GWPS and, if successfully completed, the ASD will be submitted to IEPA within 60 days of this transmittal.

[1] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Groundwater Monitoring Plan. Gypsum Management Facility Pond. Duck Creek Power Plant. Canton, Illinois*. October 25, 2021.

[2] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023. 35 I.A.C. § 845.650(E): *Alternative Source Demonstration, Gypsum Management Facility Pond, Duck Creek Power Plant, Canton, IL, IEPA ID: W0578010001-04*. November 11, 2023.

[3] Illinois Environmental Protection Agency (IEPA), 2023. *Letter from Michael Summers (IEPA) to Dianne Tickner (Electric Energy, Inc.): Re: Duck Creek Power Plant GMF Pond; W0578010001-04, Alternative Soruce Demonstration (ASD) Submittal*. December 6, 2023.

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Table 1 Field Parameters and Analytical Results - Quarter 4, 2023
Table 2 Comparison of Statistical Results to GWPS - Quarter 4, 2023

FIGURES

Figure 1 Monitoring Well Location Map

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Attachment A Groundwater Elevation Data - Quarter 4, 2023
Attachment B Laboratory Reports and Field Data Sheets - Quarter 4, 2023
Attachment C Comparison of Statistical Results to Background - Quarter 4, 2023

TABLES

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G02S	Background	E003	10/19/2023	Antimony, total	0.00043 U	mg/L
G02S	Background	E003	10/19/2023	Arsenic, total	0.00530	mg/L
G02S	Background	E003	10/19/2023	Barium, total	0.180	mg/L
G02S	Background	E003	10/19/2023	Beryllium, total	0.00059 U	mg/L
G02S	Background	E003	10/19/2023	Boron, total	0.0400	mg/L
G02S	Background	E003	10/19/2023	Cadmium, total	0.00074 U	mg/L
G02S	Background	E003	10/19/2023	Calcium, total	96.0	mg/L
G02S	Background	E003	10/19/2023	Chloride, total	2.30	mg/L
G02S	Background	E003	10/19/2023	Chromium, total	0.0028 U	mg/L
G02S	Background	E003	10/19/2023	Cobalt, total	0.00048 U	mg/L
G02S	Background	E003	10/19/2023	Dissolved Oxygen	0.500	mg/L
G02S	Background	E003	10/19/2023	Fluoride, total	0.242	mg/L
G02S	Background	E003	10/19/2023	Lead, total	0.00022 U	mg/L
G02S	Background	E003	10/19/2023	Lithium, total	0.005 U	mg/L
G02S	Background	E003	10/19/2023	Mercury, total	0.00014 U	mg/L
G02S	Background	E003	10/19/2023	Molybdenum, total	0.00074 U	mg/L
G02S	Background	E003	10/19/2023	Oxidation Reduction Potential	-97.0	mV
G02S	Background	E003	10/19/2023	pH (field)	6.7	SU
G02S	Background	E003	10/19/2023	Radium 226 + Radium 228, total	0.753 J+	pCi/L
G02S	Background	E003	10/19/2023	Selenium, total	0.00074 U	mg/L
G02S	Background	E003	10/19/2023	Specific Conductance @ 25C (field)	873	micromhos/cm
G02S	Background	E003	10/19/2023	Sulfate, total	0.18 U	mg/L
G02S	Background	E003	10/19/2023	Temperature	13.7	degrees C
G02S	Background	E003	10/19/2023	Thallium, total	0.00038 U	mg/L
G02S	Background	E003	10/19/2023	Total Dissolved Solids	430	mg/L
G02S	Background	E003	10/19/2023	Turbidity, field	0.100	NTU
G50S	Background	E003	10/23/2023	Antimony, total	0.00043 U	mg/L
G50S	Background	E003	10/23/2023	Arsenic, total	0.00069 U	mg/L
G50S	Background	E003	10/23/2023	Barium, total	0.0700	mg/L
G50S	Background	E003	10/23/2023	Beryllium, total	0.00059 U	mg/L
G50S	Background	E003	10/23/2023	Boron, total	0.0220 J+	mg/L
G50S	Background	E003	10/23/2023	Cadmium, total	0.00074 U	mg/L
G50S	Background	E003	10/23/2023	Calcium, total	87.0	mg/L
G50S	Background	E003	10/23/2023	Chloride, total	10.0	mg/L
G50S	Background	E003	10/23/2023	Chromium, total	0.0028 U	mg/L
G50S	Background	E003	10/23/2023	Cobalt, total	0.00048 U	mg/L
G50S	Background	E003	10/23/2023	Dissolved Oxygen	48.0	mg/L
G50S	Background	E003	10/23/2023	Fluoride, total	0.202	mg/L
G50S	Background	E003	10/23/2023	Lead, total	0.00022 U	mg/L
G50S	Background	E003	10/23/2023	Lithium, total	0.005 U	mg/L
G50S	Background	E003	10/23/2023	Mercury, total	0.00014 U	mg/L
G50S	Background	E003	10/23/2023	Molybdenum, total	0.00079	mg/L
G50S	Background	E003	10/23/2023	Oxidation Reduction Potential	-47.0	mV
G50S	Background	E003	10/23/2023	pH (field)	7.1	SU
G50S	Background	E003	10/23/2023	Radium 226 + Radium 228, total	0.776 J+	pCi/L
G50S	Background	E003	10/23/2023	Selenium, total	0.00074 U	mg/L

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DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G50S	Background	E003	10/23/2023	Specific Conductance @ 25C (field)	747	micromhos/cm
G50S	Background	E003	10/23/2023	Sulfate, total	42.0	mg/L
G50S	Background	E003	10/23/2023	Temperature	17.8	degrees C
G50S	Background	E003	10/23/2023	Thallium, total	0.00038 U	mg/L
G50S	Background	E003	10/23/2023	Total Dissolved Solids	610	mg/L
G50S	Background	E003	10/23/2023	Turbidity, field	21.8	NTU
G51S	Background	E003	10/26/2023	Antimony, total	0.00043 U	mg/L
G51S	Background	E003	10/26/2023	Arsenic, total	0.00360	mg/L
G51S	Background	E003	10/26/2023	Barium, total	0.0960	mg/L
G51S	Background	E003	10/26/2023	Beryllium, total	0.00059 U	mg/L
G51S	Background	E003	10/26/2023	Boron, total	0.01 UJ	mg/L
G51S	Background	E003	10/26/2023	Cadmium, total	0.00074 U	mg/L
G51S	Background	E003	10/26/2023	Calcium, total	91.0	mg/L
G51S	Background	E003	10/26/2023	Chloride, total	14.0	mg/L
G51S	Background	E003	10/26/2023	Chromium, total	0.0028 U	mg/L
G51S	Background	E003	10/26/2023	Cobalt, total	0.00048 U	mg/L
G51S	Background	E003	10/26/2023	Dissolved Oxygen	0.770	mg/L
G51S	Background	E003	10/26/2023	Fluoride, total	0.19	mg/L
G51S	Background	E003	10/26/2023	Lead, total	0.00230 J+	mg/L
G51S	Background	E003	10/26/2023	Lithium, total	0.005 U	mg/L
G51S	Background	E003	10/26/2023	Mercury, total	0.00014 U	mg/L
G51S	Background	E003	10/26/2023	Molybdenum, total	0.00110	mg/L
G51S	Background	E003	10/26/2023	Oxidation Reduction Potential	-81.0	mV
G51S	Background	E003	10/26/2023	pH (field)	7.1	SU
G51S	Background	E003	10/26/2023	Radium 226 + Radium 228, total	1.30 J+	pCi/L
G51S	Background	E003	10/26/2023	Selenium, total	0.00074 U	mg/L
G51S	Background	E003	10/26/2023	Specific Conductance @ 25C (field)	801	micromhos/cm
G51S	Background	E003	10/26/2023	Sulfate, total	60.0	mg/L
G51S	Background	E003	10/26/2023	Temperature	14.8	degrees C
G51S	Background	E003	10/26/2023	Thallium, total	0.00038 U	mg/L
G51S	Background	E003	10/26/2023	Total Dissolved Solids	420	mg/L
G51S	Background	E003	10/26/2023	Turbidity, field	18.1	NTU
G54L	Compliance	E003	10/27/2023	Antimony, total	0.00043 U	mg/L
G54L	Compliance	E003	10/27/2023	Arsenic, total	0.00190	mg/L
G54L	Compliance	E003	10/27/2023	Barium, total	0.210	mg/L
G54L	Compliance	E003	10/27/2023	Beryllium, total	0.00059 U	mg/L
G54L	Compliance	E003	10/27/2023	Boron, total	0.0380 J+	mg/L
G54L	Compliance	E003	10/27/2023	Cadmium, total	0.00074 U	mg/L
G54L	Compliance	E003	10/27/2023	Calcium, total	190	mg/L
G54L	Compliance	E003	10/27/2023	Chloride, total	43.0	mg/L
G54L	Compliance	E003	10/27/2023	Chromium, total	0.0028 U	mg/L
G54L	Compliance	E003	10/27/2023	Cobalt, total	0.0011	mg/L
G54L	Compliance	E003	10/27/2023	Dissolved Oxygen	1.80	mg/L
G54L	Compliance	E003	10/27/2023	Fluoride, total	0.204	mg/L
G54L	Compliance	E003	10/27/2023	Lead, total	0.00022 U	mg/L
G54L	Compliance	E003	10/27/2023	Lithium, total	0.0052	mg/L

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845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G54L	Compliance	E003	10/27/2023	Mercury, total	0.00018	mg/L
G54L	Compliance	E003	10/27/2023	Molybdenum, total	0.00074 U	mg/L
G54L	Compliance	E003	10/27/2023	Oxidation Reduction Potential	-17.0	mV
G54L	Compliance	E003	10/27/2023	pH (field)	6.5	SU
G54L	Compliance	E003	10/27/2023	Radium 226 + Radium 228, total	0.178 U*	pCi/L
G54L	Compliance	E003	10/27/2023	Selenium, total	0.00074 U	mg/L
G54L	Compliance	E003	10/27/2023	Specific Conductance @ 25C (field)	1,610	micromhos/cm
G54L	Compliance	E003	10/27/2023	Sulfate, total	110	mg/L
G54L	Compliance	E003	10/27/2023	Temperature	18.1	degrees C
G54L	Compliance	E003	10/27/2023	Thallium, total	0.00038 U	mg/L
G54L	Compliance	E003	10/27/2023	Total Dissolved Solids	930	mg/L
G54L	Compliance	E003	10/27/2023	Turbidity, field	0 U	NTU
G54S	Compliance	E003	10/27/2023	Antimony, total	0.00043 U	mg/L
G54S	Compliance	E003	10/27/2023	Arsenic, total	0.00120	mg/L
G54S	Compliance	E003	10/27/2023	Barium, total	0.200	mg/L
G54S	Compliance	E003	10/27/2023	Beryllium, total	0.00059 U	mg/L
G54S	Compliance	E003	10/27/2023	Boron, total	0.0480 J+	mg/L
G54S	Compliance	E003	10/27/2023	Cadmium, total	0.00074 U	mg/L
G54S	Compliance	E003	10/27/2023	Calcium, total	120	mg/L
G54S	Compliance	E003	10/27/2023	Chloride, total	4.50	mg/L
G54S	Compliance	E003	10/27/2023	Chromium, total	0.0028 U	mg/L
G54S	Compliance	E003	10/27/2023	Cobalt, total	0.00048 U	mg/L
G54S	Compliance	E003	10/27/2023	Dissolved Oxygen	1.50	mg/L
G54S	Compliance	E003	10/27/2023	Fluoride, total	0.187	mg/L
G54S	Compliance	E003	10/27/2023	Lead, total	0.00039	mg/L
G54S	Compliance	E003	10/27/2023	Lithium, total	0.0065	mg/L
G54S	Compliance	E003	10/27/2023	Mercury, total	0.00014 U	mg/L
G54S	Compliance	E003	10/27/2023	Molybdenum, total	0.00160	mg/L
G54S	Compliance	E003	10/27/2023	Oxidation Reduction Potential	-46.0	mV
G54S	Compliance	E003	10/27/2023	pH (field)	6.8	SU
G54S	Compliance	E003	10/27/2023	Radium 226 + Radium 228, total	2.14	pCi/L
G54S	Compliance	E003	10/27/2023	Selenium, total	0.00074 U	mg/L
G54S	Compliance	E003	10/27/2023	Specific Conductance @ 25C (field)	1,030	micromhos/cm
G54S	Compliance	E003	10/27/2023	Sulfate, total	33.0	mg/L
G54S	Compliance	E003	10/27/2023	Temperature	15.4	degrees C
G54S	Compliance	E003	10/27/2023	Thallium, total	0.00038 U	mg/L
G54S	Compliance	E003	10/27/2023	Total Dissolved Solids	550	mg/L
G54S	Compliance	E003	10/27/2023	Turbidity, field	15.4	NTU
G57S	Compliance	E003	10/20/2023	Antimony, total	0.00043 U	mg/L
G57S	Compliance	E003	10/20/2023	Arsenic, total	0.00069 U	mg/L
G57S	Compliance	E003	10/20/2023	Barium, total	0.170	mg/L
G57S	Compliance	E003	10/20/2023	Beryllium, total	0.00059 U	mg/L
G57S	Compliance	E003	10/20/2023	Boron, total	0.0086	mg/L
G57S	Compliance	E003	10/20/2023	Cadmium, total	0.00074 U	mg/L
G57S	Compliance	E003	10/20/2023	Calcium, total	170	mg/L
G57S	Compliance	E003	10/20/2023	Chloride, total	15.0	mg/L

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845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G57S	Compliance	E003	10/20/2023	Chromium, total	0.0028 U	mg/L
G57S	Compliance	E003	10/20/2023	Cobalt, total	0.00052	mg/L
G57S	Compliance	E003	10/20/2023	Dissolved Oxygen	9.20	mg/L
G57S	Compliance	E003	10/20/2023	Fluoride, total	0.2	mg/L
G57S	Compliance	E003	10/20/2023	Lead, total	0.00048	mg/L
G57S	Compliance	E003	10/20/2023	Lithium, total	0.005 U	mg/L
G57S	Compliance	E003	10/20/2023	Mercury, total	0.00014 U	mg/L
G57S	Compliance	E003	10/20/2023	Molybdenum, total	0.00074 U	mg/L
G57S	Compliance	E003	10/20/2023	Oxidation Reduction Potential	78.0	mV
G57S	Compliance	E003	10/20/2023	pH (field)	6.4	SU
G57S	Compliance	E003	10/20/2023	Radium 226 + Radium 228, total	1.88 J+	pCi/L
G57S	Compliance	E003	10/20/2023	Selenium, total	0.00074 U	mg/L
G57S	Compliance	E003	10/20/2023	Specific Conductance @ 25C (field)	1,400	micromhos/cm
G57S	Compliance	E003	10/20/2023	Sulfate, total	46.0	mg/L
G57S	Compliance	E003	10/20/2023	Temperature	15.0	degrees C
G57S	Compliance	E003	10/20/2023	Thallium, total	0.00038 U	mg/L
G57S	Compliance	E003	10/20/2023	Total Dissolved Solids	820	mg/L
G57S	Compliance	E003	10/20/2023	Turbidity, field	36.2	NTU
G60L	Compliance	E003	10/23/2023	Antimony, total	0.00043 U	mg/L
G60L	Compliance	E003	10/23/2023	Arsenic, total	0.00069 U	mg/L
G60L	Compliance	E003	10/23/2023	Barium, total	0.0220 J+	mg/L
G60L	Compliance	E003	10/23/2023	Beryllium, total	0.00059 U	mg/L
G60L	Compliance	E003	10/23/2023	Boron, total	0.0280 J+	mg/L
G60L	Compliance	E003	10/23/2023	Cadmium, total	0.00074 U	mg/L
G60L	Compliance	E003	10/23/2023	Calcium, total	91.0	mg/L
G60L	Compliance	E003	10/23/2023	Chloride, total	9.30	mg/L
G60L	Compliance	E003	10/23/2023	Chromium, total	0.0028 U	mg/L
G60L	Compliance	E003	10/23/2023	Cobalt, total	0.00590	mg/L
G60L	Compliance	E003	10/23/2023	Dissolved Oxygen	2.90	mg/L
G60L	Compliance	E003	10/23/2023	Fluoride, total	0.0733	mg/L
G60L	Compliance	E003	10/23/2023	Lead, total	0.00022 U	mg/L
G60L	Compliance	E003	10/23/2023	Lithium, total	0.005 U	mg/L
G60L	Compliance	E003	10/23/2023	Mercury, total	0.00014 U	mg/L
G60L	Compliance	E003	10/23/2023	Molybdenum, total	0.00074 U	mg/L
G60L	Compliance	E003	10/23/2023	Oxidation Reduction Potential	68.0	mV
G60L	Compliance	E003	10/23/2023	pH (field)	6.0	SU
G60L	Compliance	E003	10/23/2023	Radium 226 + Radium 228, total	0.919 J+	pCi/L
G60L	Compliance	E003	10/23/2023	Selenium, total	0.00074 U	mg/L
G60L	Compliance	E003	10/23/2023	Specific Conductance @ 25C (field)	885	micromhos/cm
G60L	Compliance	E003	10/23/2023	Sulfate, total	170	mg/L
G60L	Compliance	E003	10/23/2023	Temperature	14.4	degrees C
G60L	Compliance	E003	10/23/2023	Thallium, total	0.00038 U	mg/L
G60L	Compliance	E003	10/23/2023	Total Dissolved Solids	600	mg/L
G60L	Compliance	E003	10/23/2023	Turbidity, field	7.80	NTU
G60S	Compliance	E003	10/31/2023	Antimony, total	0.00043 U	mg/L
G60S	Compliance	E003	10/31/2023	Arsenic, total	0.0180	mg/L

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CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G60S	Compliance	E003	10/31/2023	Barium, total	0.210	mg/L
G60S	Compliance	E003	10/31/2023	Beryllium, total	0.00091	mg/L
G60S	Compliance	E003	10/31/2023	Boron, total	0.0380 J+	mg/L
G60S	Compliance	E003	10/31/2023	Cadmium, total	0.00074 U	mg/L
G60S	Compliance	E003	10/31/2023	Calcium, total	180	mg/L
G60S	Compliance	E003	10/31/2023	Chloride, total	8.40	mg/L
G60S	Compliance	E003	10/31/2023	Chromium, total	0.0250	mg/L
G60S	Compliance	E003	10/31/2023	Cobalt, total	0.0110	mg/L
G60S	Compliance	E003	10/31/2023	Dissolved Oxygen	3.00	mg/L
G60S	Compliance	E003	10/31/2023	Fluoride, total	0.162	mg/L
G60S	Compliance	E003	10/31/2023	Lead, total	0.0320	mg/L
G60S	Compliance	E003	10/31/2023	Lithium, total	0.0240	mg/L
G60S	Compliance	E003	10/31/2023	Mercury, total	0.00014 U	mg/L
G60S	Compliance	E003	10/31/2023	Molybdenum, total	0.00280	mg/L
G60S	Compliance	E003	10/31/2023	Oxidation Reduction Potential	-10.0	mV
G60S	Compliance	E003	10/31/2023	pH (field)	6.6	SU
G60S	Compliance	E003	10/31/2023	Radium 226 + Radium 228, total	1.55 J+	pCi/L
G60S	Compliance	E003	10/31/2023	Selenium, total	0.00150	mg/L
G60S	Compliance	E003	10/31/2023	Specific Conductance @ 25C (field)	953	micromhos/cm
G60S	Compliance	E003	10/31/2023	Sulfate, total	74.0	mg/L
G60S	Compliance	E003	10/31/2023	Temperature	9.60	degrees C
G60S	Compliance	E003	10/31/2023	Thallium, total	0.00038 U	mg/L
G60S	Compliance	E003	10/31/2023	Total Dissolved Solids	660	mg/L
G60S	Compliance	E003	10/31/2023	Turbidity, field	1,000	NTU
G64L	Compliance	E003	10/26/2023	Antimony, total	0.00043 U	mg/L
G64L	Compliance	E003	10/26/2023	Arsenic, total	0.00069 U	mg/L
G64L	Compliance	E003	10/26/2023	Barium, total	0.0890	mg/L
G64L	Compliance	E003	10/26/2023	Beryllium, total	0.00059 U	mg/L
G64L	Compliance	E003	10/26/2023	Boron, total	0.0071 U	mg/L
G64L	Compliance	E003	10/26/2023	Cadmium, total	0.00074 U	mg/L
G64L	Compliance	E003	10/26/2023	Calcium, total	110	mg/L
G64L	Compliance	E003	10/26/2023	Chloride, total	2.90	mg/L
G64L	Compliance	E003	10/26/2023	Chromium, total	0.0028 U	mg/L
G64L	Compliance	E003	10/26/2023	Cobalt, total	0.00048 U	mg/L
G64L	Compliance	E003	10/26/2023	Dissolved Oxygen	3.40	mg/L
G64L	Compliance	E003	10/26/2023	Fluoride, total	0.224	mg/L
G64L	Compliance	E003	10/26/2023	Lead, total	0.00022 U	mg/L
G64L	Compliance	E003	10/26/2023	Lithium, total	0.005 U	mg/L
G64L	Compliance	E003	10/26/2023	Mercury, total	0.00014 U	mg/L
G64L	Compliance	E003	10/26/2023	Molybdenum, total	0.00093	mg/L
G64L	Compliance	E003	10/26/2023	Oxidation Reduction Potential	14.0	mV
G64L	Compliance	E003	10/26/2023	pH (field)	6.8	SU
G64L	Compliance	E003	10/26/2023	Radium 226 + Radium 228, total	0.812 J+	pCi/L
G64L	Compliance	E003	10/26/2023	Selenium, total	0.00074 U	mg/L
G64L	Compliance	E003	10/26/2023	Specific Conductance @ 25C (field)	1,000	micromhos/cm
G64L	Compliance	E003	10/26/2023	Sulfate, total	41.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G64L	Compliance	E003	10/26/2023	Temperature	16.2	degrees C
G64L	Compliance	E003	10/26/2023	Thallium, total	0.00038 U	mg/L
G64L	Compliance	E003	10/26/2023	Total Dissolved Solids	540	mg/L
G64L	Compliance	E003	10/26/2023	Turbidity, field	9.40	NTU
G64S	Compliance	E003	10/26/2023	Antimony, total	0.00043 U	mg/L
G64S	Compliance	E003	10/26/2023	Arsenic, total	0.00074	mg/L
G64S	Compliance	E003	10/26/2023	Barium, total	0.150	mg/L
G64S	Compliance	E003	10/26/2023	Beryllium, total	0.00059 U	mg/L
G64S	Compliance	E003	10/26/2023	Boron, total	0.0130 J+	mg/L
G64S	Compliance	E003	10/26/2023	Cadmium, total	0.00074 U	mg/L
G64S	Compliance	E003	10/26/2023	Calcium, total	98.0	mg/L
G64S	Compliance	E003	10/26/2023	Chloride, total	4.10	mg/L
G64S	Compliance	E003	10/26/2023	Chromium, total	0.0028 U	mg/L
G64S	Compliance	E003	10/26/2023	Cobalt, total	0.00048 U	mg/L
G64S	Compliance	E003	10/26/2023	Dissolved Oxygen	1.20	mg/L
G64S	Compliance	E003	10/26/2023	Fluoride, total	0.217	mg/L
G64S	Compliance	E003	10/26/2023	Lead, total	0.00022 U	mg/L
G64S	Compliance	E003	10/26/2023	Lithium, total	0.005 U	mg/L
G64S	Compliance	E003	10/26/2023	Mercury, total	0.00014 U	mg/L
G64S	Compliance	E003	10/26/2023	Molybdenum, total	0.00120	mg/L
G64S	Compliance	E003	10/26/2023	Oxidation Reduction Potential	-44.0	mV
G64S	Compliance	E003	10/26/2023	pH (field)	6.9	SU
G64S	Compliance	E003	10/26/2023	Radium 226 + Radium 228, total	0.492 U*	pCi/L
G64S	Compliance	E003	10/26/2023	Selenium, total	0.00074 U	mg/L
G64S	Compliance	E003	10/26/2023	Specific Conductance @ 25C (field)	874	micromhos/cm
G64S	Compliance	E003	10/26/2023	Sulfate, total	26.0	mg/L
G64S	Compliance	E003	10/26/2023	Temperature	15.6	degrees C
G64S	Compliance	E003	10/26/2023	Thallium, total	0.00038 U	mg/L
G64S	Compliance	E003	10/26/2023	Total Dissolved Solids	440	mg/L
G64S	Compliance	E003	10/26/2023	Turbidity, field	25.5	NTU

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
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.

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G54L	PMP	E003	Antimony, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G54L	PMP	E003	Arsenic, total	mg/L	04/14/21 - 10/27/23	11	0	CB around linear reg	-0.00524	0.010	Standard	No Exceedance
G54L	PMP	E003	Barium, total	mg/L	04/14/21 - 10/27/23	11	0	CI around mean	0.159	2.0	Standard	No Exceedance
G54L	PMP	E003	Beryllium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G54L	PMP	E003	Boron, total	mg/L	04/14/21 - 10/27/23	12	0	CI around geomean	0.0186	2	Standard	No Exceedance
G54L	PMP	E003	Cadmium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G54L	PMP	E003	Chloride, total	mg/L	04/14/21 - 10/27/23	12	0	CB around T-S line	4.53	200	Standard	No Exceedance
G54L	PMP	E003	Chromium, total	mg/L	04/14/21 - 10/27/23	11	91	CI around median	0.004	0.1	Standard	No Exceedance
G54L	PMP	E003	Cobalt, total	mg/L	04/14/21 - 10/27/23	11	46	CI around median	0.002	0.006	Standard	No Exceedance
G54L	PMP	E003	Fluoride, total	mg/L	04/14/21 - 10/27/23	12	83	CI around median	0.25	4.0	Standard	No Exceedance
G54L	PMP	E003	Lead, total	mg/L	04/14/21 - 10/27/23	11	85	Most recent sample	0.001	0.0150	Background	No Exceedance
G54L	PMP	E003	Lithium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G54L	PMP	E003	Mercury, total	mg/L	04/14/21 - 10/27/23	11	91	CI around median	0.0002	0.002	Standard	No Exceedance
G54L	PMP	E003	Molybdenum, total	mg/L	04/14/21 - 10/27/23	11	54	CI around median	0.001	0.1	Standard	No Exceedance
G54L	PMP	E003	pH (field)	SU	04/14/21 - 10/27/23	18	0	CI around median	6.5/6.6	6.5/9.0	Standard/Standard	No Exceedance
G54L	PMP	E003	Radium 226 + Radium 228, total	pCi/L	04/14/21 - 10/27/23	11	0	CI around mean	0.32	5	Standard	No Exceedance
G54L	PMP	E003	Selenium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.05	Standard	No Exceedance
G54L	PMP	E003	Sulfate, total	mg/L	04/14/21 - 10/27/23	12	0	CI around mean	68	400	Standard	No Exceedance
G54L	PMP	E003	Thallium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G54L	PMP	E003	Total Dissolved Solids	mg/L	04/14/21 - 10/27/23	18	0	CI around mean	708	1,200	Standard	No Exceedance
G54S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G54S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/27/23	11	25	CI around median	0.001	0.010	Standard	No Exceedance
G54S	UA	E003	Barium, total	mg/L	12/04/15 - 10/27/23	11	0	CI around mean	0.21	2.0	Standard	No Exceedance
G54S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G54S	UA	E003	Boron, total	mg/L	12/04/15 - 10/27/23	25	0	CI around mean	0.0326	2	Standard	No Exceedance
G54S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G54S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/27/23	23	8	CI around geomean	2.03	200	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G54S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.004	0.1	Standard	No Exceedance
G54S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.002	0.006	Standard	No Exceedance
G54S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/27/23	24	76	CI around median	0.25	4.0	Standard	No Exceedance
G54S	UA	E003	Lead, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.0150	Background	No Exceedance
G54S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/27/23	11	73	CI around median	0.01	0.04	Standard	No Exceedance
G54S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/27/23	11	83	CI around median	0.0002	0.002	Standard	No Exceedance
G54S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/27/23	11	0	CI around mean	0.00147	0.1	Standard	No Exceedance
G54S	UA	E003	pH (field)	SU	12/04/15 - 10/27/23	32	0	CB around linear reg	6.5/6.9	6.5/9.0	Standard/Standard	No Exceedance
G54S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/27/23	11	0	CI around geomean	0.612	5	Standard	No Exceedance
G54S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.05	Standard	No Exceedance
G54S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/27/23	23	0	CB around T-S line	31.9	400	Standard	No Exceedance
G54S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G54S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/27/23	31	0	CI around mean	518	1,200	Standard	No Exceedance
G57S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/20/23	11	92	CI around median	0.003	0.006	Standard	No Exceedance
G57S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/20/23	11	90	Most recent sample	0.001	0.010	Standard	No Exceedance
G57S	UA	E003	Barium, total	mg/L	12/04/15 - 10/20/23	11	0	CI around median	0.13	2.0	Standard	No Exceedance
G57S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/20/23	11	92	CI around median	0.001	0.004	Standard	No Exceedance
G57S	UA	E003	Boron, total	mg/L	12/04/15 - 10/20/23	24	42	CI around median	0.01	2	Standard	No Exceedance
G57S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/20/23	11	91	CI around median	0.001	0.005	Standard	No Exceedance
G57S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/20/23	24	2	CI around median	18	200	Standard	No Exceedance
G57S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/20/23	11	92	Most recent sample	0.004	0.1	Standard	No Exceedance
G57S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/20/23	11	92	Most recent sample	0.002	0.006	Standard	No Exceedance
G57S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/20/23	25	35	CI around median	0.25	4.0	Standard	No Exceedance
G57S	UA	E003	Lead, total	mg/L	12/04/15 - 10/20/23	11	75	CI around median	0.001	0.0150	Background	No Exceedance
G57S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/20/23	11	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G57S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/20/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G57S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/20/23	11	91	CI around median	0.001	0.1	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G57S	UA	E003	pH (field)	SU	12/04/15 - 10/20/23	31	0	CB around linear reg	6.5/6.8	6.5/9.0	Standard/Standard	No Exceedance
G57S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/20/23	11	0	CI around mean	0.179	5	Standard	No Exceedance
G57S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/20/23	11	92	Most recent sample	0.001	0.05	Standard	No Exceedance
G57S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/20/23	23	0	CB around linear reg	46.2	400	Standard	No Exceedance
G57S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/20/23	11	92	CI around median	0.001	0.002	Standard	No Exceedance
G57S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/20/23	31	0	CB around linear reg	773	1,200	Standard	No Exceedance
G60L	PMP	E003	Antimony, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G60L	PMP	E003	Arsenic, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.010	Standard	No Exceedance
G60L	PMP	E003	Barium, total	mg/L	04/14/21 - 10/23/23	11	0	CI around mean	0.0159	2.0	Standard	No Exceedance
G60L	PMP	E003	Beryllium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G60L	PMP	E003	Boron, total	mg/L	04/14/21 - 10/23/23	12	0	CI around median	0.025	2	Standard	No Exceedance
G60L	PMP	E003	Cadmium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G60L	PMP	E003	Chloride, total	mg/L	04/14/21 - 10/23/23	12	0	CB around linear reg	7.63	200	Standard	No Exceedance
G60L	PMP	E003	Chromium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.004	0.1	Standard	No Exceedance
G60L	PMP	E003	Cobalt, total	mg/L	04/14/21 - 10/23/23	11	18	CI around mean	0.00249	0.006	Standard	No Exceedance
G60L	PMP	E003	Fluoride, total	mg/L	04/14/21 - 10/23/23	12	100	All ND - Last	0.25	4.0	Standard	No Exceedance
G60L	PMP	E003	Lead, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.0150	Background	No Exceedance
G60L	PMP	E003	Lithium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G60L	PMP	E003	Mercury, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G60L	PMP	E003	Molybdenum, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.1	Standard	No Exceedance
G60L	PMP	E003	pH (field)	SU	04/14/21 - 10/23/23	18	0	CI around mean	6.0/6.2	6.5/9.0	Standard/Standard	Exceedance
G60L	PMP	E003	Radium 226 + Radium 228, total	pCi/L	04/14/21 - 10/23/23	11	0	CI around mean	0.164	5	Standard	No Exceedance
G60L	PMP	E003	Selenium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.05	Standard	No Exceedance
G60L	PMP	E003	Sulfate, total	mg/L	04/14/21 - 10/23/23	12	8	CI around mean	153	400	Standard	No Exceedance
G60L	PMP	E003	Thallium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G60L	PMP	E003	Total Dissolved Solids	mg/L	04/14/21 - 10/23/23	18	0	CI around mean	549	1,200	Standard	No Exceedance
G60S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G60S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/31/23	11	16	CI around geomean	0.00132	0.010	Standard	No Exceedance
G60S	UA	E003	Barium, total	mg/L	12/04/15 - 10/31/23	11	0	CI around mean	0.137	2.0	Standard	No Exceedance
G60S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G60S	UA	E003	Boron, total	mg/L	12/04/15 - 10/31/23	26	9	CB around T-S line	0.024	2	Standard	No Exceedance
G60S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G60S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/31/23	24	2	CI around geomean	7.96	200	Standard	No Exceedance
G60S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/31/23	11	54	CI around median	0.004	0.1	Standard	No Exceedance
G60S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/31/23	11	82	CI around median	0.002	0.006	Standard	No Exceedance
G60S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/31/23	25	44	CI around median	0.25	4.0	Standard	No Exceedance
G60S	UA	E003	Lead, total	mg/L	12/04/15 - 10/31/23	11	32	CI around median	0.001	0.0150	Background	No Exceedance
G60S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/31/23	11	82	CI around median	0.01	0.04	Standard	No Exceedance
G60S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G60S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/31/23	11	54	CI around median	0.001	0.1	Standard	No Exceedance
G60S	UA	E003	pH (field)	SU	12/04/15 - 10/31/23	32	0	CI around mean	6.7/6.8	6.5/9.0	Standard/Standard	No Exceedance
G60S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/31/23	11	0	CI around mean	0.836	5	Standard	No Exceedance
G60S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/31/23	11	82	CI around median	0.001	0.05	Standard	No Exceedance
G60S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/31/23	25	0	CB around T-S line	70.2	400	Standard	No Exceedance
G60S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G60S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/31/23	32	0	CI around median	550	1,200	Standard	No Exceedance
G64L	PMP	E003	Antimony, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G64L	PMP	E003	Arsenic, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.001	0.010	Standard	No Exceedance
G64L	PMP	E003	Barium, total	mg/L	05/15/23 - 10/26/23	3	0	Most recent sample	0.089	2.0	Standard	No Exceedance
G64L	PMP	E003	Beryllium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G64L	PMP	E003	Boron, total	mg/L	01/11/23 - 10/26/23	4	20	CI around mean	-0.00458	2	Standard	No Exceedance
G64L	PMP	E003	Cadmium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G64L	PMP	E003	Chloride, total	mg/L	01/11/23 - 10/26/23	4	10	CI around mean	1.37	200	Standard	No Exceedance
G64L	PMP	E003	Chromium, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.004	0.1	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G64L	PMP	E003	Cobalt, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.002	0.006	Standard	No Exceedance
G64L	PMP	E003	Fluoride, total	mg/L	01/11/23 - 10/26/23	4	50	CI around mean	0.126	4.0	Standard	No Exceedance
G64L	PMP	E003	Lead, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.001	0.0150	Background	No Exceedance
G64L	PMP	E003	Lithium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G64L	PMP	E003	Mercury, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G64L	PMP	E003	Molybdenum, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.001	0.1	Standard	No Exceedance
G64L	PMP	E003	pH (field)	SU	05/21/21 - 10/26/23	11	0	CI around median	6.8/7.0	6.5/9.0	Standard/Standard	No Exceedance
G64L	PMP	E003	Radium 226 + Radium 228, total	pCi/L	05/15/23 - 10/26/23	3	0	Most recent sample	0.812	5	Standard	No Exceedance
G64L	PMP	E003	Selenium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.05	Standard	No Exceedance
G64L	PMP	E003	Sulfate, total	mg/L	01/11/23 - 10/26/23	4	0	CI around mean	11.1	400	Standard	No Exceedance
G64L	PMP	E003	Thallium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G64L	PMP	E003	Total Dissolved Solids	mg/L	05/21/21 - 10/26/23	11	0	CI around mean	554	1,200	Standard	No Exceedance
G64S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/26/23	11	92	CI around median	0.003	0.006	Standard	No Exceedance
G64S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/26/23	11	10	CI around mean	0.00136	0.010	Standard	No Exceedance
G64S	UA	E003	Barium, total	mg/L	12/04/15 - 10/26/23	11	0	CI around mean	0.16	2.0	Standard	No Exceedance
G64S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G64S	UA	E003	Boron, total	mg/L	12/04/15 - 10/26/23	24	3	CI around geomean	0.0146	2	Standard	No Exceedance
G64S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G64S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/26/23	23	2	CI around median	3.4	200	Standard	No Exceedance
G64S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/26/23	11	92	CI around median	0.004	0.1	Standard	No Exceedance
G64S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.002	0.006	Standard	No Exceedance
G64S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/26/23	25	15	CI around mean	0.295	4.0	Standard	No Exceedance
G64S	UA	E003	Lead, total	mg/L	12/04/15 - 10/26/23	11	40	CI around median	0.001	0.0150	Background	No Exceedance
G64S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G64S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G64S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/26/23	11	18	CI around mean	0.00117	0.1	Standard	No Exceedance
G64S	UA	E003	pH (field)	SU	12/04/15 - 10/26/23	32	0	CI around median	6.8/7.0	6.5/9.0	Standard/Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G64S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/26/23	11	0	CI around mean	0.543	5	Standard	No Exceedance
G64S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/26/23	11	92	CI around median	0.001	0.05	Standard	No Exceedance
G64S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/26/23	23	0	CI around mean	24	400	Standard	No Exceedance
G64S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G64S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/26/23	30	0	CI around median	420	1,200	Standard	No Exceedance

Notes:
Compliance Result:

No Exceedance: the statistical result did not exceed the GWPS.

Exceedance: The statistical result exceeded the GWPS.

HSU = hydrostratigraphic unit:

PMP = Potential Migration Pathway

UA = Uppermost Aquifer

mg/L = milligrams per liter
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown

CB around T-S line = Confidence band around Thiel-Sen line

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
For pH, the values presented are the lower / upper limits
GWPS = Groundwater Protection Standard
GWPS Source:

Standard = standard specified in 35 I.A.C. § 845.600(a)(1)

Background = background concentration (see cover page for additional information)

FIGURES



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

0 150 300
Feet

Monitoring Well Location Map

GYPSUM MANAGEMENT FACILITY (GMF) POND
DUCK CREEK POWER PLANT
CANTON, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

ATTACHMENTS

ATTACHMENT A
SUMMARY OF GROUNDWATER ELEVATION DATA
QUARTER 4, 2023

ATTACHMENT A.
GROUNDWATER ELEVATION DATA - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	Well Type	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G02S	Background	10/16/2023	14.23	607.43
G50S	Background	10/16/2023	18.80	604.85
G51S	Background	10/16/2023	19.81	599.85
G54L	Compliance	10/16/2023	21.89	601.06
G54S	Compliance	10/16/2023	23.12	599.86
G57S	Compliance	10/16/2023	24.83	597.93
G60L	Compliance	10/16/2023	18.65	596.74
G60S	Compliance	10/16/2023	26.67	588.36
G64L	Compliance	10/16/2023	24.58	597.88
G64S	Compliance	10/16/2023	25.50	597.56

Notes:
Only wells with groundwater elevations measured are included.
BMP = below measuring point
NAVD88 = North American Vertical Datum of 1988

ATTACHMENT B
LABORATORY REPORTS AND FIELD DATA SHEETS
QUARTER 4, 2023

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

January 04, 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 GJ03740

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 GJ03961

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 GJ04131

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 GJ04861

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
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Work Order GJ04997

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

Pace Analytical Services, LLC
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(800)752-6651

Work Order GJ05390

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: GJ03740-03
Name: G02S
Matrix: Ground Water - Grab

Sampled: 10/19/23 14:30
Received: 10/19/23 16:42
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.3	mg/L		10/20/23 17:33	1	1.0	10/20/23 17:33	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/20/23 17:33	1	0.250	10/20/23 17:33	CRD	EPA 300.0 REV 2.1
Sulfate	< 1.0	mg/L		10/20/23 17:33	1	1.0	10/20/23 17:33	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.21	Feet		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Dissolved oxygen, Field	0.50	mg/L		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Oxidation Reduction Potential	-97.0	mV		10/19/23 14:30	1	-500	10/19/23 14:30	FIELD	Field*
pH, Field Measured	6.71	pH Units		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Specific Conductance, Field Measured	873.0	umhos/cm		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Temperature, Field Measured	13.7	°C		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Temperature, Field Measured	56.7	°F		10/19/23 14:30	1		10/19/23 14:30	FIELD	Field*
Turbidity, Field Measured	0.100	NTU		10/19/23 14:30	1	0.00	10/19/23 14:30	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	430	mg/L		10/24/23 11:20	1	26	10/24/23 15:20	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/23/23 09:11	5	3.0	10/25/23 16:07	TJJ	EPA 6020A
Arsenic	5.3	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A
Barium	180	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/26/23 12:22	TJJ	EPA 6020A
Boron	40	ug/L		10/23/23 09:11	5	10	10/26/23 12:22	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A
Calcium	96	mg/L		10/23/23 09:11	5	0.20	10/25/23 16:07	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/23/23 09:11	5	4.0	10/25/23 16:07	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/23/23 09:11	5	2.0	10/25/23 16:07	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A
Magnesium	38	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:07	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/23/23 09:11	5	0.20	10/25/23 16:07	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A

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

ANALYTICAL RESULTS

Sample: GJ03740-03
Name: G02S
Matrix: Ground Water - Grab

Sampled: 10/19/23 14:30
Received: 10/19/23 16:42
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.72	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:07	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A
Sodium	14	mg/L		10/23/23 09:11	5	0.10	10/25/23 16:07	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 16:07	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/23/23 09:11	1	0.020	10/25/23 12:21	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ03961-08
Name: G57S
Matrix: Ground Water - Grab

Sampled: 10/20/23 12:47
Received: 10/20/23 16:14
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	15	mg/L		10/21/23 02:56	10	10	10/21/23 02:56	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/25/23 04:55	1	0.250	10/25/23 04:55	TMS	EPA 300.0 REV 2.1
Sulfate	46	mg/L		10/21/23 02:56	10	10	10/21/23 02:56	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.83	Feet		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Dissolved oxygen, Field	9.2	mg/L		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Oxidation Reduction Potential	78.0	mV		10/20/23 12:47	1	-500	10/20/23 12:47	FIELD	Field*
pH, Field Measured	6.41	pH Units		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Specific Conductance, Field Measured	1400	umhos/cm		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Temperature, Field Measured	59.0	°F		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Temperature, Field Measured	15.0	°C		10/20/23 12:47	1		10/20/23 12:47	FIELD	Field*
Turbidity, Field Measured	36.2	NTU		10/20/23 12:47	1	0.00	10/20/23 12:47	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	710	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/01/23 09:54	1	10	11/01/23 09:54	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	820	mg/L		10/25/23 11:18	1	26	10/25/23 15:27	CPS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/23/23 09:11	5	3.0	10/25/23 17:21	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A
Barium	170	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/26/23 12:26	TJJ	EPA 6020A
Boron	< 10	ug/L		10/23/23 09:11	5	10	10/26/23 12:26	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A
Calcium	170	mg/L		10/23/23 09:11	5	0.20	10/25/23 17:21	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/23/23 09:11	5	4.0	10/25/23 17:21	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/23/23 09:11	5	2.0	10/25/23 17:21	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A
Magnesium	99	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:21	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/23/23 09:11	5	0.20	10/25/23 17:21	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ03961-08
Name: G57S
Matrix: Ground Water - Grab

Sampled: 10/20/23 12:47
Received: 10/20/23 16:14
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.45	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:21	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A
Sodium	12	mg/L		10/23/23 09:11	5	0.10	10/25/23 17:21	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/23/23 09:11	5	1.0	10/25/23 17:21	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/23/23 09:11	1	0.020	10/25/23 13:01	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04131-02
Name: G50S
Matrix: Ground Water - Grab

Sampled: 10/23/23 16:09
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	10	mg/L	Q4	10/30/23 22:18	10	10	10/30/23 22:18	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/30/23 21:23	1	0.250	10/30/23 21:23	CRD	EPA 300.0 REV 2.1
Sulfate	42	mg/L	Q4	10/30/23 22:18	10	10	10/30/23 22:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	18.94	Feet		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Dissolved oxygen, Field	48	mg/L		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Oxidation Reduction Potential	-47.0	mV		10/23/23 16:09	1	-500	10/23/23 16:09	FIELD	Field*
pH, Field Measured	7.08	pH Units		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Specific Conductance, Field Measured	747.0	umhos/cm		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Temperature, Field Measured	64.0	°F		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Temperature, Field Measured	17.8	°C		10/23/23 16:09	1		10/23/23 16:09	FIELD	Field*
Turbidity, Field Measured	21.8	NTU		10/23/23 16:09	1	0.00	10/23/23 16:09	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	340	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	610	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 14:29	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A
Barium	70	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 11:39	TJJ	EPA 6020A
Boron	22	ug/L		10/26/23 08:40	5	10	11/01/23 11:39	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A
Calcium	87	mg/L		10/26/23 08:40	5	0.20	10/31/23 14:29	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/26/23 08:40	5	4.0	10/31/23 14:29	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		10/26/23 08:40	5	2.0	10/31/23 14:29	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A
Magnesium	35	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:29	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 14:29	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04131-02
Name: G50S
Matrix: Ground Water - Grab

Sampled: 10/23/23 16:09
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.33	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:29	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A
Sodium	8.8	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:29	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:29	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/26/23 08:40	1	0.020	10/31/23 09:58	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04131-03
Name: G60L
Matrix: Ground Water - Grab

Sampled: 10/23/23 11:48
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	9.3	mg/L		10/30/23 22:54	5	5.0	10/30/23 22:54	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		10/30/23 22:36	1	0.250	10/30/23 22:36	CRD	EPA 300.0 REV 2.1
Sulfate	170	mg/L		10/30/23 23:12	25	25	10/30/23 23:12	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.26	Feet		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Dissolved oxygen, Field	2.9	mg/L		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Oxidation Reduction Potential	68.0	mV		10/23/23 11:48	1	-500	10/23/23 11:48	FIELD	Field*
pH, Field Measured	5.99	pH Units		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Specific Conductance, Field Measured	885.0	umhos/cm		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Temperature, Field Measured	14.4	°C		10/23/23 11:48	1		10/23/23 11:48	FIELD	Field*
Turbidity, Field Measured	7.80	NTU		10/23/23 11:48	1	0.00	10/23/23 11:48	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	290	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/02/23 13:24	1	10	11/02/23 13:24	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	600	mg/L		10/25/23 11:20	1	26	10/25/23 14:25	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		10/26/23 08:40	5	3.0	10/31/23 14:33	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Barium	22	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		10/26/23 08:40	5	1.0	11/01/23 11:43	TJJ	EPA 6020A
Boron	28	ug/L		10/26/23 08:40	5	10	11/01/23 11:43	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Calcium	91	mg/L		10/26/23 08:40	5	0.20	10/31/23 14:33	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		10/26/23 08:40	5	4.0	10/31/23 14:33	TJJ	EPA 6020A
Cobalt	5.9	ug/L		10/26/23 08:40	5	2.0	10/31/23 14:33	TJJ	EPA 6020A
Lead	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Magnesium	39	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:33	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		10/26/23 08:40	5	0.20	10/31/23 14:33	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Potassium	0.34	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:33	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04131-03
Name: G60L
Matrix: Ground Water - Grab

Sampled: 10/23/23 11:48
Received: 10/23/23 17:34
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Sodium	34	mg/L		10/26/23 08:40	5	0.10	10/31/23 14:33	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		10/26/23 08:40	5	1.0	10/31/23 14:33	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		10/26/23 08:40	1	0.020	10/31/23 10:00	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04861-01
Name: G51S
Matrix: Ground Water - Grab

Sampled: 10/26/23 11:55
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	14	mg/L		11/07/23 03:18	10	10	11/07/23 03:18	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 03:00	1	0.250	11/07/23 03:00	CRD	EPA 300.0 REV 2.1
Sulfate	60	mg/L		11/07/23 03:18	10	10	11/07/23 03:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	19.95	Feet		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Dissolved oxygen, Field	0.77	mg/L		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Oxidation Reduction Potential	-81.0	mV		10/26/23 11:55	1	-500	10/26/23 11:55	FIELD	Field*
pH, Field Measured	7.12	pH Units		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Specific Conductance, Field Measured	801.0	umhos/cm		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Temperature, Field Measured	14.8	°C		10/26/23 11:55	1		10/26/23 11:55	FIELD	Field*
Turbidity, Field Measured	18.1	NTU		10/26/23 11:55	1	0.00	10/26/23 11:55	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	310	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	420	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:44	TJJ	EPA 6020A
Arsenic	3.6	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Barium	96	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Boron	< 10	ug/L		11/01/23 09:04	5	10	11/07/23 09:23	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Calcium	91	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:44	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:44	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:44	TJJ	EPA 6020A
Lead	2.3	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Magnesium	39	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:44	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:44	TJJ	EPA 6020A
Molybdenum	1.1	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Potassium	0.33	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:44	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04861-01
Name: G51S
Matrix: Ground Water - Grab

Sampled: 10/26/23 11:55
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Sodium	7.1	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:44	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:44	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:19	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04861-04
Name: G64L
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:53
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	2.9	mg/L		11/07/23 04:30	1	1.0	11/07/23 04:30	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 04:30	1	0.250	11/07/23 04:30	CRD	EPA 300.0 REV 2.1
Sulfate	41	mg/L		11/07/23 04:48	25	25	11/07/23 04:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	24.66	Feet		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Dissolved oxygen, Field	3.4	mg/L		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Oxidation Reduction Potential	14.0	mV		10/26/23 13:53	1	-500	10/26/23 13:53	FIELD	Field*
pH, Field Measured	6.82	pH Units		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Specific Conductance, Field Measured	1000	umhos/cm		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Temperature, Field Measured	16.2	°C		10/26/23 13:53	1		10/26/23 13:53	FIELD	Field*
Turbidity, Field Measured	9.40	NTU		10/26/23 13:53	1	0.00	10/26/23 13:53	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	480	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	540	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:52	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Barium	89	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Boron	< 10	ug/L		11/01/23 09:04	5	10	11/07/23 09:31	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Calcium	110	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:52	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:52	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:52	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Magnesium	61	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:52	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:52	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Potassium	0.14	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:52	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04861-04
Name: G64L
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:53
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Sodium	8.0	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:52	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:52	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:29	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04861-05
Name: G64S
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:38
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	4.1	mg/L		11/07/23 05:07	1	1.0	11/07/23 05:07	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 05:07	1	0.250	11/07/23 05:07	CRD	EPA 300.0 REV 2.1
Sulfate	26	mg/L		11/07/23 06:39	5	5.0	11/07/23 06:39	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.6	Feet		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Dissolved oxygen, Field	1.2	mg/L		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Oxidation Reduction Potential	-44.0	mV		10/26/23 13:38	1	-500	10/26/23 13:38	FIELD	Field*
pH, Field Measured	6.89	pH Units		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	874.0	umhos/cm		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Temperature, Field Measured	15.6	°C		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Temperature, Field Measured	60.0	°F		10/26/23 13:38	1		10/26/23 13:38	FIELD	Field*
Turbidity, Field Measured	25.5	NTU		10/26/23 13:38	1	0.00	10/26/23 13:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/07/23 09:23	1	10	11/07/23 09:23	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	440	mg/L		10/27/23 13:11	1	26	10/27/23 14:54	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/01/23 09:04	5	3.0	11/06/23 14:55	TJJ	EPA 6020A
Arsenic	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Barium	150	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Boron	13	ug/L		11/01/23 09:04	5	10	11/07/23 09:45	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Calcium	98	mg/L		11/01/23 09:04	5	0.20	11/06/23 14:55	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/01/23 09:04	5	4.0	11/06/23 14:55	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/01/23 09:04	5	2.0	11/06/23 14:55	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Magnesium	46	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:55	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/01/23 09:04	5	0.20	11/06/23 14:55	TJJ	EPA 6020A
Molybdenum	1.2	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04861-05
Name: G64S
Matrix: Ground Water - Grab

Sampled: 10/26/23 13:38
Received: 10/27/23 07:15
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Potassium	0.55	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:55	TJJ	EPA 6020A
Selenium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Sodium	13	mg/L		11/01/23 09:04	5	0.10	11/06/23 14:55	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/01/23 09:04	5	1.0	11/06/23 14:55	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/01/23 09:04	1	0.020	11/06/23 09:32	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04997-05
Name: G54L
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:38
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	43	mg/L		11/08/23 03:26	5	5.0	11/08/23 03:26	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 03:07	1	0.250	11/08/23 03:07	CRD	EPA 300.0 REV 2.1
Sulfate	110	mg/L		11/08/23 03:45	25	25	11/08/23 03:45	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	21.18	Feet		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Oxidation Reduction Potential	-17.0	mV		10/27/23 13:38	1	-500	10/27/23 13:38	FIELD	Field*
pH, Field Measured	6.53	pH Units		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Specific Conductance, Field Measured	1610	umhos/cm		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Temperature, Field Measured	18.1	°C		10/27/23 13:38	1		10/27/23 13:38	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		10/27/23 13:38	1	0.00	10/27/23 13:38	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	590	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	930	mg/L		10/31/23 11:02	1	26	10/31/23 13:33	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 10:44	TJJ	EPA 6020A
Arsenic	1.9	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:11	TJJ	EPA 6020A
Barium	210	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:44	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:11	TJJ	EPA 6020A
Boron	38	ug/L		11/02/23 08:47	5	10	11/10/23 10:11	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:44	TJJ	EPA 6020A
Calcium	190	mg/L		11/02/23 08:47	5	0.20	11/09/23 10:44	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/02/23 08:47	5	4.0	11/09/23 10:44	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/02/23 08:47	5	2.0	11/09/23 10:44	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:44	TJJ	EPA 6020A
Magnesium	97	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:44	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 10:44	TJJ	EPA 6020A
Molybdenum	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:44	TJJ	EPA 6020A
Potassium	0.36	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:44	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04997-05
Name: G54L
Matrix: Ground Water - Grab

Sampled: 10/27/23 13:38
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:11	TJJ	EPA 6020A
Sodium	12	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:44	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:44	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/02/23 08:47	1	0.020	11/06/23 10:32	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ04997-06
Name: G54S
Matrix: Ground Water - Grab

Sampled: 10/27/23 11:54
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	4.5	mg/L		11/08/23 04:04	1	1.0	11/08/23 04:04	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/08/23 04:04	1	0.250	11/08/23 04:04	CRD	EPA 300.0 REV 2.1
Sulfate	33	mg/L		11/08/23 05:00	5	5.0	11/08/23 05:00	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	23.23	Feet		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Dissolved oxygen, Field	1.5	mg/L		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Oxidation Reduction Potential	-46.0	mV		10/27/23 11:54	1	-500	10/27/23 11:54	FIELD	Field*
pH, Field Measured	6.77	pH Units		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Specific Conductance, Field Measured	1030	umhos/cm		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Temperature, Field Measured	15.4	°C		10/27/23 11:54	1		10/27/23 11:54	FIELD	Field*
Turbidity, Field Measured	15.4	NTU		10/27/23 11:54	1	0.00	10/27/23 11:54	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	410	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/09/23 14:47	1	10	11/09/23 14:47	LAL2/CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	550	mg/L		10/31/23 11:02	1	26	10/31/23 13:33	OGS	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 10:48	TJJ	EPA 6020A
Arsenic	1.2	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:15	TJJ	EPA 6020A
Barium	200	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:48	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:15	TJJ	EPA 6020A
Boron	48	ug/L		11/02/23 08:47	5	10	11/10/23 10:15	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:48	TJJ	EPA 6020A
Calcium	120	mg/L		11/02/23 08:47	5	0.20	11/09/23 10:48	TJJ	EPA 6020A
Chromium	< 4.0	ug/L		11/02/23 08:47	5	4.0	11/09/23 10:48	TJJ	EPA 6020A
Cobalt	< 2.0	ug/L		11/02/23 08:47	5	2.0	11/09/23 10:48	TJJ	EPA 6020A
Lead	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:48	TJJ	EPA 6020A
Magnesium	50	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:48	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 10:48	TJJ	EPA 6020A
Molybdenum	1.6	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:48	TJJ	EPA 6020A
Potassium	0.68	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:48	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ04997-06
Name: G54S
Matrix: Ground Water - Grab

Sampled: 10/27/23 11:54
Received: 10/27/23 16:49
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 10:15	TJJ	EPA 6020A
Sodium	10	mg/L		11/02/23 08:47	5	0.10	11/09/23 10:48	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 10:48	TJJ	EPA 6020A
Lithium	< 0.020	mg/L		11/02/23 08:47	1	0.020	11/06/23 10:34	BRS	EPA 6010B

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ANALYTICAL RESULTS

Sample: GJ05390-01
Name: G60S
Matrix: Ground Water - Grab

Sampled: 10/31/23 10:27
Received: 10/31/23 15:25
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	8.4	mg/L	Q1	11/07/23 21:37	1	1.0	11/07/23 21:37	TMS	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		11/07/23 21:37	1	0.250	11/07/23 21:37	TMS	EPA 300.0 REV 2.1
Sulfate	74	mg/L	Q4	11/07/23 22:31	10	10	11/07/23 22:31	TMS	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	25.84	Feet		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Dissolved oxygen, Field	3.0	mg/L		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Oxidation Reduction Potential	-10.0	mV		10/31/23 10:27	1	-500	10/31/23 10:27	FIELD	Field*
pH, Field Measured	6.64	pH Units		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Specific Conductance, Field Measured	953.0	umhos/cm		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Temperature, Field Measured	9.6	°C		10/31/23 10:27	1		10/31/23 10:27	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		10/31/23 10:27	1	0.00	10/31/23 10:27	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	500	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		11/13/23 09:44	1	10	11/13/23 09:44	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	660	mg/L		11/01/23 13:44	1	26	11/01/23 15:44	LAL2	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		11/02/23 08:47	5	3.0	11/09/23 11:50	TJJ	EPA 6020A
Arsenic	18	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:07	TJJ	EPA 6020A
Barium	210	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:50	TJJ	EPA 6020A
Beryllium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/10/23 11:07	TJJ	EPA 6020A
Boron	38	ug/L		11/02/23 08:47	5	10	11/10/23 11:07	TJJ	EPA 6020A
Cadmium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:50	TJJ	EPA 6020A
Calcium	180	mg/L		11/02/23 08:47	5	0.20	11/09/23 11:50	TJJ	EPA 6020A
Chromium	25	ug/L		11/02/23 08:47	5	4.0	11/09/23 11:50	TJJ	EPA 6020A
Cobalt	11	ug/L		11/02/23 08:47	5	2.0	11/09/23 11:50	TJJ	EPA 6020A
Lead	32	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:50	TJJ	EPA 6020A
Magnesium	77	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:50	TJJ	EPA 6020A
Mercury	< 0.20	ug/L		11/02/23 08:47	5	0.20	11/09/23 11:50	TJJ	EPA 6020A
Molybdenum	2.8	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:50	TJJ	EPA 6020A
Potassium	4.3	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:50	TJJ	EPA 6020A

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ANALYTICAL RESULTS

Sample: GJ05390-01
Name: G60S
Matrix: Ground Water - Grab

Sampled: 10/31/23 10:27
Received: 10/31/23 15:25
PO #: 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.5	ug/L		11/02/23 08:47	5	1.0	11/14/23 11:29	KMC	EPA 6020A
Sodium	12	mg/L		11/02/23 08:47	5	0.10	11/09/23 11:50	TJJ	EPA 6020A
Thallium	< 1.0	ug/L		11/02/23 08:47	5	1.0	11/09/23 11:50	TJJ	EPA 6020A
Lithium	0.024	mg/L		11/02/23 08:47	1	0.020	11/06/23 10:57	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 B347107 - SW 3015 - EPA 6010B									
Blank (B347107-BLK1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	< 0.020	mg/L							
LCS (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	0.563	mg/L		0.5556		101	80-120		
Matrix Spike (B347107-MS1)	**Sample: GJ03740-01**			Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	0.578	mg/L		0.5556	0.00626	103	75-125		
Matrix Spike Dup (B347107-MSD1)	**Sample: GJ03740-01**			Prepared: 10/23/23 Analyzed: 10/25/23					
Lithium	0.549	mg/L		0.5556	0.00626	98	75-125	5	20
Batch B347107 - SW 3015 - EPA 6020A									
Blank (B347107-BLK1)				Prepared: 10/23/23 Analyzed: 10/25/23					
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 (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Antimony	560	ug/L		555.6		101	80-120		
Arsenic	508	ug/L		555.6		91	80-120		
Barium	551	ug/L		555.6		99	80-120		
Beryllium	517	ug/L		555.6		93	80-120		
Boron	518	ug/L		555.6		93	80-120		
Cadmium	504	ug/L		555.6		91	80-120		
Calcium	5.61	mg/L		5.556		101	80-120		
Chromium	574	ug/L		555.6		103	80-120		
Cobalt	559	ug/L		555.6		101	80-120		
Lead	538	ug/L		555.6		97	80-120		
Magnesium	5.79	mg/L		5.556		104	80-120		
Mercury	50.4	ug/L		55.56		91	80-120		
Molybdenum	490	ug/L		555.6		88	80-120		
Potassium	5.80	mg/L		5.556		104	80-120		
Selenium	549	ug/L		555.6		99	80-120		
Sodium	5.71	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 (B347107-BS1)				Prepared: 10/23/23 Analyzed: 10/25/23					
Thallium	538	ug/L		555.6		97	80-120		
Matrix Spike (B347107-MS1)	**Sample: GJ03740-01**			Prepared: 10/23/23 Analyzed: 10/25/23					
Antimony	571	ug/L		555.6	ND	103	75-125		
Arsenic	529	ug/L		555.6	1.90	95	75-125		
Barium	610	ug/L		555.6	50.0	101	75-125		
Beryllium	529	ug/L		555.6	ND	95	75-125		
Boron	618	ug/L		555.6	80.6	97	75-125		
Cadmium	518	ug/L		555.6	ND	93	75-125		
Calcium	206	mg/L		5.556	201	88	75-125		
Chromium	568	ug/L		555.6	ND	102	75-125		
Cobalt	551	ug/L		555.6	0.517	99	75-125		
Lead	541	ug/L		555.6	ND	97	75-125		
Magnesium	106	mg/L	Q4	5.556	102	73	75-125		
Mercury	53.5	ug/L		55.56	ND	96	75-125		
Molybdenum	517	ug/L		555.6	2.04	93	75-125		
Potassium	8.20	mg/L		5.556	2.38	105	75-125		
Selenium	566	ug/L		555.6	ND	102	75-125		
Sodium	49.9	mg/L		5.556	44.9	91	75-125		
Thallium	544	ug/L		555.6	ND	98	75-125		
Matrix Spike Dup (B347107-MSD1)	**Sample: GJ03740-01**			Prepared: 10/23/23 Analyzed: 10/25/23					
Antimony	566	ug/L		555.6	ND	102	75-125	0.8	20
Arsenic	526	ug/L		555.6	1.90	94	75-125	0.5	20
Barium	604	ug/L		555.6	50.0	100	75-125	1	20
Beryllium	536	ug/L		555.6	ND	97	75-125	1	20
Boron	636	ug/L		555.6	80.6	100	75-125	3	20
Cadmium	517	ug/L		555.6	ND	93	75-125	0.1	20
Calcium	207	mg/L		5.556	201	110	75-125	0.6	20
Chromium	561	ug/L		555.6	ND	101	75-125	1	20
Cobalt	545	ug/L		555.6	0.517	98	75-125	1	20
Lead	538	ug/L		555.6	ND	97	75-125	0.6	20
Magnesium	106	mg/L	Q4	5.556	102	72	75-125	0.04	20
Mercury	53.7	ug/L		55.56	ND	97	75-125	0.4	20
Molybdenum	513	ug/L		555.6	2.04	92	75-125	0.7	20
Potassium	8.15	mg/L		5.556	2.38	104	75-125	0.7	20
Selenium	565	ug/L		555.6	ND	102	75-125	0.1	20
Sodium	50.1	mg/L		5.556	44.9	94	75-125	0.3	20
Thallium	541	ug/L		555.6	ND	97	75-125	0.5	20
Batch B347137 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B347137-CCB1)				Prepared & Analyzed: 10/20/23					
Fluoride	0.00	mg/L							
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Calibration Check (B347137-CCV1)				Prepared & Analyzed: 10/20/23					
Chloride	4.66	mg/L		5.000		93	90-110		
Fluoride	4.74	mg/L		5.000		95	90-110		
Sulfate	4.84	mg/L		5.000		97	90-110		

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B347137-MS1)	**Sample: GJ03740-01**			Prepared & Analyzed: 10/20/23					
Fluoride	1.58	mg/L		1.500	0.194	93	80-120		
Matrix Spike Dup (B347137-MSD1)	**Sample: GJ03740-01**			Prepared & Analyzed: 10/20/23					
Fluoride	1.72	mg/L		1.500	0.194	101	80-120	8	20
Batch B347264 - No Prep - SM 2540C									
Blank (B347264-BLK1)				Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347264-BS1)				Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	947	mg/L		1000		95	84.9-109		
Duplicate (B347264-DUP1)	**Sample: GJ03740-03**			Prepared & Analyzed: 10/24/23					
Solids - total dissolved solids (TDS)	450	mg/L			430			5	5
Batch B347378 - No Prep - SM 2540C									
Blank (B347378-BLK1)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347378-BS1)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	940	mg/L		1000		94	84.9-109		
Duplicate (B347378-DUP1)	**Sample: GJ03961-01**			Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	465	mg/L			485			4	5
Duplicate (B347378-DUP2)	**Sample: GJ03961-07**			Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	515	mg/L			535			4	5
Batch B347379 - No Prep - SM 2540C									
Blank (B347379-BLK1)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347379-BS1)				Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	947	mg/L		1000		95	84.9-109		
Duplicate (B347379-DUP1)	**Sample: GJ04131-01**			Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	555	mg/L			580			4	5
Duplicate (B347379-DUP2)	**Sample: GJ04131-08**			Prepared & Analyzed: 10/25/23					
Solids - total dissolved solids (TDS)	2690	mg/L			2560			5	5
Batch B347400 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B347400-CCB1)				Prepared & Analyzed: 10/24/23					
Fluoride	0.00	mg/L							
Calibration Blank (B347400-CCB2)				Prepared & Analyzed: 10/24/23					
Fluoride	0.00	mg/L							
Calibration Check (B347400-CCV1)				Prepared & Analyzed: 10/24/23					
Fluoride	4.78	mg/L		5.000		96	90-110		
Calibration Check (B347400-CCV2)				Prepared & Analyzed: 10/24/23					
Fluoride	4.83	mg/L		5.000		97	90-110		
Batch B347462 - SW 3015 - EPA 6010B									
Blank (B347462-BLK1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Lithium	< 0.020	mg/L							
LCS (B347462-BS1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Lithium	0.580	mg/L		0.5556		104	80-120		

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B347462 - SW 3015 - EPA 6020A									
Blank (B347462-BLK1)				Prepared: 10/26/23 Analyzed: 10/31/23					
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 (B347462-BS1)				Prepared: 10/26/23 Analyzed: 10/31/23					
Antimony	538	ug/L		555.6		97	80-120		
Arsenic	533	ug/L		555.6		96	80-120		
Barium	541	ug/L		555.6		97	80-120		
Beryllium	515	ug/L		555.6		93	80-120		
Boron	507	ug/L		555.6		91	80-120		
Cadmium	533	ug/L		555.6		96	80-120		
Calcium	5.48	mg/L		5.556		99	80-120		
Chromium	543	ug/L		555.6		98	80-120		
Cobalt	546	ug/L		555.6		98	80-120		
Lead	556	ug/L		555.6		100	80-120		
Magnesium	5.67	mg/L		5.556		102	80-120		
Mercury	52.0	ug/L		55.56		94	80-120		
Molybdenum	526	ug/L		555.6		95	80-120		
Potassium	5.60	mg/L		5.556		101	80-120		
Selenium	547	ug/L		555.6		98	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Thallium	546	ug/L		555.6		98	80-120		
Batch B347621 - No Prep - SM 2540C									
Blank (B347621-BLK1)				Prepared & Analyzed: 10/27/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347621-BS1)				Prepared & Analyzed: 10/27/23					
Solids - total dissolved solids (TDS)	987	mg/L		1000		99	84.9-109		
Duplicate (B347621-DUP2)	**Sample: GJ04861-01**			Prepared & Analyzed: 10/27/23					
Solids - total dissolved solids (TDS)	425	mg/L			425			0	5
Batch B347849 - No Prep - SM 2540C									

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B347849-BLK1)				Prepared & Analyzed: 10/31/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347849-BS1)				Prepared & Analyzed: 10/31/23					
Solids - total dissolved solids (TDS)	960	mg/L		1000		96	84.9-109		
Batch B347854 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B347854-CCB1)				Prepared & Analyzed: 10/30/23					
Fluoride	0.00	mg/L							
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Calibration Check (B347854-CCV1)				Prepared & Analyzed: 10/30/23					
Chloride	4.82	mg/L		5.000		96	90-110		
Sulfate	5.03	mg/L		5.000		101	90-110		
Fluoride	4.95	mg/L		5.000		99	90-110		
Matrix Spike (B347854-MS1)	**Sample: GJ03740-01**			Prepared & Analyzed: 10/31/23					
Sulfate	1.00E9	mg/L	Q4	1.500	478	NR	80-120		
Matrix Spike (B347854-MS2)	**Sample: GJ04131-02**			Prepared & Analyzed: 10/30/23					
Sulfate	1.00E9	mg/L	Q4	1.500	41.8	NR	80-120		
Fluoride	1.66	mg/L		1.500	0.202	97	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120		
Matrix Spike Dup (B347854-MSD1)	**Sample: GJ03740-01**			Prepared & Analyzed: 10/31/23					
Sulfate	1.00E9	mg/L	Q4	1.500	478	NR	80-120	0	20
Matrix Spike Dup (B347854-MSD2)	**Sample: GJ04131-02**			Prepared & Analyzed: 10/30/23					
Chloride	1.0E9	mg/L	Q4	1.500	10	NR	80-120	0	20
Fluoride	1.69	mg/L		1.500	0.202	99	80-120	2	20
Sulfate	1.00E9	mg/L	Q4	1.500	41.8	NR	80-120	0	20
Batch B347939 - SW 3015 - EPA 6010B									
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Lithium	< 0.020	mg/L							
LCS (B347939-BS1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Lithium	0.547	mg/L		0.5556		98	80-120		
Batch B347939 - SW 3015 - EPA 6020A									
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/06/23					
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							

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B347939-BLK1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B347939-BS1)				Prepared: 11/01/23 Analyzed: 11/06/23					
Antimony	554	ug/L		555.6		100	80-120		
Arsenic	548	ug/L		555.6		99	80-120		
Barium	564	ug/L		555.6		101	80-120		
Beryllium	541	ug/L		555.6		97	80-120		
Boron	518	ug/L		555.6		93	80-120		
Cadmium	556	ug/L		555.6		100	80-120		
Calcium	5.67	mg/L		5.556		102	80-120		
Chromium	566	ug/L		555.6		102	80-120		
Cobalt	561	ug/L		555.6		101	80-120		
Lead	561	ug/L		555.6		101	80-120		
Magnesium	5.84	mg/L		5.556		105	80-120		
Mercury	51.2	ug/L		55.56		92	80-120		
Molybdenum	545	ug/L		555.6		98	80-120		
Potassium	5.69	mg/L		5.556		102	80-120		
Selenium	565	ug/L		555.6		102	80-120		
Sodium	5.82	mg/L		5.556		105	80-120		
Thallium	557	ug/L		555.6		100	80-120		
Batch B347965 - No Prep - SM 2320B 1997									
Duplicate (B347965-DUP1)	**Sample: GJ03740-01**			Prepared & Analyzed: 11/01/23					
Alkalinity - bicarbonate as CaCO3	500	mg/L			475			5	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B347965-DUP2)	**Sample: GJ03961-01**			Prepared & Analyzed: 11/01/23					
Alkalinity - bicarbonate as CaCO3	312	mg/L			312			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B347985 - No Prep - SM 2540C									
Blank (B347985-BLK1)				Prepared & Analyzed: 11/01/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B347985-BS1)				Prepared & Analyzed: 11/01/23					
Solids - total dissolved solids (TDS)	1020	mg/L		1000		102	84.9-109		
Batch B348049 - SW 3015 - EPA 6010B									
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/06/23					
Lithium	< 0.020	mg/L							
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/06/23					
Lithium	0.523	mg/L		0.5556		94	80-120		
Matrix Spike (B348049-MS1)	**Sample: GJ04997-11**			Prepared: 11/02/23 Analyzed: 11/06/23					
Lithium	0.542	mg/L		0.5556	0.0233	93	75-125		
Matrix Spike Dup (B348049-MSD1)	**Sample: GJ04997-11**			Prepared: 11/02/23 Analyzed: 11/06/23					
Lithium	0.565	mg/L		0.5556	0.0233	98	75-125	4	20

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B348049 - SW 3015 - EPA 6020A									
Blank (B348049-BLK1)				Prepared: 11/02/23 Analyzed: 11/09/23					
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							
Blank (B348049-BLK2)				Prepared: 11/02/23 Analyzed: 11/14/23					
Selenium	< 1.0	ug/L							
LCS (B348049-BS1)				Prepared: 11/02/23 Analyzed: 11/09/23					
Antimony	563	ug/L		555.6		101	80-120		
Arsenic	552	ug/L		555.6		99	80-120		
Barium	540	ug/L		555.6		97	80-120		
Beryllium	534	ug/L		555.6		96	80-120		
Boron	500	ug/L		555.6		90	80-120		
Cadmium	532	ug/L		555.6		96	80-120		
Calcium	5.60	mg/L		5.556		101	80-120		
Chromium	548	ug/L		555.6		99	80-120		
Cobalt	544	ug/L		555.6		98	80-120		
Lead	539	ug/L		555.6		97	80-120		
Magnesium	5.60	mg/L		5.556		101	80-120		
Mercury	52.1	ug/L		55.56		94	80-120		
Molybdenum	530	ug/L		555.6		95	80-120		
Potassium	5.47	mg/L		5.556		99	80-120		
Selenium	582	ug/L		555.6		105	80-120		
Sodium	5.59	mg/L		5.556		101	80-120		
Thallium	536	ug/L		555.6		97	80-120		
LCS (B348049-BS4)				Prepared: 11/02/23 Analyzed: 11/14/23					
Selenium	587	ug/L		555.6		106	80-120		
Matrix Spike (B348049-MS1)	**Sample: GJ04997-11**			Prepared: 11/02/23 Analyzed: 11/09/23					
Antimony	438	ug/L		555.6	0.594	79	75-125		
Arsenic	522	ug/L		555.6	28.5	89	75-125		
Barium	727	ug/L		555.6	219	92	75-125		
Beryllium	514	ug/L		555.6	1.36	92	75-125		
Boron	5440	ug/L		555.6	4970	85	75-125		

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Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B348049-MS1)	**Sample: GJ04997-11**			Prepared: 11/02/23 Analyzed: 11/09/23					
Cadmium	529	ug/L		555.6	ND	95	75-125		
Calcium	233	mg/L	Q4	5.556	229	70	75-125		
Chromium	570	ug/L		555.6	36.7	96	75-125		
Cobalt	542	ug/L		555.6	24.4	93	75-125		
Lead	563	ug/L		555.6	33.7	95	75-125		
Magnesium	93.0	mg/L	Q4	5.556	89.6	60	75-125		
Mercury	52.0	ug/L		55.56	0.156	93	75-125		
Molybdenum	538	ug/L		555.6	9.36	95	75-125		
Potassium	9.46	mg/L		5.556	4.16	95	75-125		
Selenium	491	ug/L		555.6	3.09	88	75-125		
Sodium	104	mg/L	Q4	5.556	101	58	75-125		
Thallium	521	ug/L		555.6	0.422	94	75-125		
Matrix Spike Dup (B348049-MSD1)	**Sample: GJ04997-11**			Prepared: 11/02/23 Analyzed: 11/09/23					
Antimony	413	ug/L	Q2	555.6	0.594	74	75-125	6	20
Arsenic	521	ug/L		555.6	28.5	89	75-125	0.3	20
Barium	737	ug/L		555.6	219	93	75-125	1	20
Beryllium	501	ug/L		555.6	1.36	90	75-125	3	20
Boron	5330	ug/L	Q4	555.6	4970	66	75-125	2	20
Cadmium	533	ug/L		555.6	ND	96	75-125	0.8	20
Calcium	235	mg/L		5.556	229	108	75-125	0.9	20
Chromium	574	ug/L		555.6	36.7	97	75-125	0.6	20
Cobalt	540	ug/L		555.6	24.4	93	75-125	0.3	20
Lead	557	ug/L		555.6	33.7	94	75-125	1	20
Magnesium	93.8	mg/L		5.556	89.6	76	75-125	0.9	20
Mercury	53.8	ug/L		55.56	0.156	96	75-125	3	20
Molybdenum	543	ug/L		555.6	9.36	96	75-125	1	20
Potassium	9.90	mg/L		5.556	4.16	103	75-125	5	20
Selenium	482	ug/L		555.6	3.09	86	75-125	2	20
Sodium	104	mg/L	Q4	5.556	101	58	75-125	0.002	20
Thallium	521	ug/L		555.6	0.422	94	75-125	0.05	20
Batch B348151 - No Prep - SM 2320B 1997									
Duplicate (B348151-DUP1)	**Sample: GJ04131-02**			Prepared & Analyzed: 11/02/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	350	mg/L			338			4	10
Batch B348438 - No Prep - SM 2320B 1997									
Duplicate (B348438-DUP5)	**Sample: GJ04861-01**			Prepared & Analyzed: 11/07/23					
Alkalinity - bicarbonate as CaCO3	338	mg/L			312			8	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B348457 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B348457-CCB1)				Prepared & Analyzed: 11/06/23					
Sulfate	0.00	mg/L							
Chloride	0.00	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B348457-CCV1)				Prepared & Analyzed: 11/06/23					

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

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Calibration Check (B348457-CCV1)				Prepared & Analyzed: 11/06/23					
Chloride	4.93	mg/L		5.000		99	90-110		
Sulfate	5.14	mg/L		5.000		103	90-110		
Fluoride	5.06	mg/L		5.000		101	90-110		
Batch B348606 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B348606-CCB1)				Prepared & Analyzed: 11/07/23					
Chloride	0.00	mg/L							
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Calibration Check (B348606-CCV1)				Prepared & Analyzed: 11/07/23					
Sulfate	4.65	mg/L		5.000		93	90-110		
Fluoride	4.66	mg/L		5.000		93	90-110		
Chloride	4.54	mg/L		5.000		91	90-110		
Batch B348608 - IC No Prep - EPA 300.0 REV 2.1									
Calibration Blank (B348608-CCB1)				Prepared & Analyzed: 11/07/23					
Sulfate	0.00	mg/L							
Fluoride	0.00	mg/L							
Chloride	0.0595	mg/L							
Calibration Check (B348608-CCV1)				Prepared & Analyzed: 11/07/23					
Chloride	4.74	mg/L		5.000		95	90-110		
Sulfate	4.89	mg/L		5.000		98	90-110		
Fluoride	4.98	mg/L		5.000		100	90-110		
Matrix Spike (B348608-MS1)	**Sample: GJ05390-01**			Prepared & Analyzed: 11/07/23					
Fluoride	1.52	mg/L		1.500	0.162	91	80-120		
Sulfate	1.00E9	mg/L	Q4	1.500	74.0	NR	80-120		
Chloride	9.3	mg/L	Q1	1.500	8.4	58	80-120		
Matrix Spike Dup (B348608-MSD1)	**Sample: GJ05390-01**			Prepared & Analyzed: 11/07/23					
Sulfate	1.00E9	mg/L	Q4	1.500	74.0	NR	80-120	0	20
Chloride	9.1	mg/L	Q1	1.500	8.4	50	80-120	1	20
Fluoride	1.53	mg/L		1.500	0.162	91	80-120	0.1	20
Batch B348781 - No Prep - SM 2320B 1997									
Duplicate (B348781-DUP1)	**Sample: GJ04997-01**			Prepared & Analyzed: 11/09/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	362	mg/L	M		325			11	10
Duplicate (B348781-DUP2)	**Sample: GJ04997-11**			Prepared & Analyzed: 11/09/23					
Alkalinity - bicarbonate as CaCO3	525	mg/L			512			2	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Batch B349001 - No Prep - SM 2320B 1997									
Duplicate (B349001-DUP1)	**Sample: GJ05390-01**			Prepared & Analyzed: 11/13/23					
Alkalinity - bicarbonate as CaCO3	500	mg/L			500			0	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

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

NOTES

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

* Not a TNI accredited analyte

Certifications

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

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

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

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

Qualifiers

M	Analyte failed to meet the required acceptance criteria for duplicate analysis.
Q1	Matrix Spike failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q2	Matrix Spike Duplicate failed % recovery acceptance limits. The associated blank spike recovery was acceptable.
Q4	The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Certified by: Diane Billings, Project Manager

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:	REGULATORY AGENCY
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	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 #:	GW03740 GW

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																										
2	BA02																										
3	BA02L																										
4	BA03																										
5	BA03L																										
6	BA04																										
7	BA05	WT	G	10/19/23	1149																						
8	BA06	WT	G	10/19/23	1309																						
9	G02D																										
10	G02L																										
11	G02S	WT	G	10/19/23	1430																						
12	G03L																										
13	G03S																										
14	G04L																										
15	G06L																										
16	G06S																										

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-23Q4 Rev 0	Joseph R Reed	10/19/23	1642							
					10/19/23	1642	14.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Reed

SIGNATURE of SAMPLER: Joseph R Reed

DATE Signed (MM/DD/YY): 10/19/23

GJ039461
GS

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

DC-845-205

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND

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	BA01																												
2	BA02																												
3	BA02L																												
4	BA03																												
5	BA03L																												
6	BA04																												
7	BA05																												
8	BA06																												
9	G02D																												
10	G02L																												
11	G02S																												
12	G03L	WT	G	10/20/23	1348		5	X	X	X		X																	
13	G03S																												
14	G04L																												
15	G06L																												
16	G06S																												

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-23Q4 Rev 0		10/20/23	1614							
					10/20/23	1614	2.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/20/23

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
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	G07L																										
2	G08L																										
3	G09L																										
4	G12L																										
5	G12S																										
6	G14L	WT	G	10/20/23	1155		0																				
7	G15L																										
8	G15S																										
9	G16L																										
10	G50L																										
11	G50S																										
12	G51L	WT	G	10/20/23	1023		0																				
13	G51S																										
14	G52L																										
15	G52S																										
16	G53L																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/20/23	1614							
					10/20/23	1614	2.2	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/20/23

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
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	G53S																												
2	G54L																												
3	G54S																												
4	G55L																												
5	G55S																												
6	G56L																												
7	G56S	WT	G	10/20/23	1134		2	X		X																			
8	G57L																												
9	G57S	WT	G	10/20/23	1247		5	X		X																			
10	G58L																												
11	G58S	WT	G	10/20/23	1332		2	X		X																			
12	G59L																												
13	G59S	WT	G	10/20/23	1420		2	X		X																			
14	G60L																												
15	G60S																												
16	G61S																												

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-23Q4 Rev 0		10/20/23	1614							
					10/20/23	1614	2.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/20/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
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	OR19																												
2	OR20																												
3	P01I																												
4	P01L																												
5	P01S																												
6	P02S																												
7	P04S																												
8	P05D																												
9	P05L	WT	G	10/20/23	1130		5	X	X	X		X																	
10	P05S																												
11	P36D																												
12	P36L																												
13	P36S																												
14	P37D																												
15	P37L																												
16	P38L																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q4 Rev 0		10/20/23	1614		10/20/23	1614	2.2 / Y / N / Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/20/23

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

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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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

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	P57S																													
2	P60																													
3	P61																													
4	P62																													
5	P63																													
6	P64																													
7	R10L																													
8	R11L																													
9	R13L	WT	G	10/20/23	1250		5	X	X	X		X																		
10	R61L																													
11	R72S																													
12	T43L																													
13	T44L																													
14	T45L																													
15	T46L																													
16	X301																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q4 Rev 0		10/20/23	1614				
					10/20/23	1614	2.2 / Y / N / Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Remberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/20/23

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

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 10 of 10

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	XTPW02																											
2	Field Blank																											
3	Equipment Blank 2	W	G	10/20/23	1500		6	X	X	X		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-23Q4 Rev 0		10/20/23	1614		10/20/23	1614	2.2	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/20/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 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

GJ04131

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 #	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	G07L																												
2	G08L																												
3	G09L																												
4	G12L																												
5	G12S																												
6	G14L																												
7	G15L																												
8	~~G15S~~																												
9	G16L																												
10	G50L	WT	G	10/23/23	1551		2	1		1																			
11	G50S	WT	G	10/23/23	1609		5	2		3																			
12	G51L																												
13	G51S																												
14	G52L																												
15	G52S																												
16	G53L																												

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-23Q4 Rev 0		10/23/23	1734							
					10/23/23	1734	1.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 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

GJ04131 gef

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: DC-257-203	DC-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	G53S																												
2	G54L																												
3	G54S																												
4	G55L																												
5	G55S																												
6	G56L																												
7	G56S																												
8	G57L																												
9	G57S																												
10	G58L																												
11	G58S																												
12	G59L																												
13	G59S																												
14	G60L	WT	G	10/23/23	1148		5	2		3																			
15	G60S																												
16	G61S	WT	G	10/23/23	1335		5	2		3																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/23/23	1734							
					10/23/23	1734	1.4	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 4 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 GJ04131

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	G62L																												
2	G63L																												
3	G63S	WT	G	10/23/23	1425		2	1		1																			
4	G64L																												
5	G64S																												
6	G65L																												
7	G65S																												
8	G66L																												
9	G66S																												
10	G67L																												
11	G67S																												
12	G70L																												
13	G71L																												
14	G71S																												
15	G72L																												
16	G73L																												

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

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-23Q4 Rev 0		10/23/23	1739							
					10/23/23	1734	1.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rembelton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 5 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

GJ04131 gd

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	L103																												
2	OM01																												
3	OM04S																												
4	OM05S																												
5	OM07																												
6	OM08																												
7	OM09																												
8	OM10																												
9	OM12																												
10	OM15																												
11	OM16																												
12	OM17																												
13	OM21																												
14	OM22D	WT	G	10/23/23	1411		11	X	X	X																			
15	OM22S																												
16	OM23D	WT	G	10/23/23	1254		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-23Q4 Rev 0		10/23/23	1734		10/23/23	1734	1.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 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 GJ04131

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	OM23S																												
2	OM24D	WT	G	10/23/23	1049		11	X	X	X																			
3	OM25D																												
4	OM25S	WT	G	10/23/23	1130		11	X	X	X																			
5	OR02																												
6	OR03D	WT	G	10/23/23	1530		11	X	X	X																			
7	OR03S																												
8	OR04D																												
9	OR05D																												
10	OR06A																												
11	OR11																												
12	OR13D																												
13	OR13S																												
14	OR14D																												
15	OR14S																												
16	OR18																												

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-23Q4 Rev 0		10/23/23	1739							
					10/23/23	1734	1.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 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

GJ04131

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	XTPW02																										
2	Field Blank																										
3	~~Equipment Blank~~ EB-3 10/23/23 dwb	WT	G	10/23/23	1545		11	X	X	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-23Q4 Rev 0		10/23/23	1739		10/23/23	1734	1.6	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Lambertson
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 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

GJ048621 SAB

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	G07L																												
2	G08L																												
3	G09L																												
4	G12L																												
5	G12S																												
6	G14L																												
7	G15L																												
8	G15S																												
9	G16L																												
10	G50L																												
11	G50S																												
12	G51L																												
13	G51S	WT	G	10/26/23	1155		5	2	3	3																			
14	G52L																												
15	G52S																												
16	G53L																												

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-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: LOGAN ROSS

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/26/23

Confidential

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

6JU48621 SAB

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	G62L	WT	G	10/26/23	1531		5	2	3	3																		
2	G63L	WT	G	10/26/23	1435		2	1	+	1																		
3	G63S																											
4	G64L	WT	G	10/26/23	1353		5	2	3	3																		
5	G64S	WT	G	10/26/23	1338		5	2	3	3																		
6	G65L																											
7	~~G65S~~																											
8	G66L																											
9	G66S																											
10	G67L																											
11	G67S																											
12	G70L																											
13	G71L																											
14	G71S																											
15	G72L																											
16	G73L																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	4	N	4
							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: Logan Ross

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/26/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 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 — GJ048641 SAB

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	L103																												
2	OM01																												
3	OM04S																												
4	OM05S																												
5	OM07	WT	G	10/26/23	1204		11	X	X	X																			
6	OM08																												
7	OM09																												
8	OM10																												
9	OM12	WT	G	10/26/23	1045		11	X	X	X																			
10	OM15																												
11	OM16																												
12	OM17																												
13	OM21																												
14	OM22D																												
15	OM22S																												
16	OM23D																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		10/26/23	1645			
					10/27/23	715

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Kemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/26/23

Confidential

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 GJ048621 SAB

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	OM23S																													
2	OM24D																													
3	OM25D																													
4	OM25S																													
5	OR02																													
6	OR03D																													
7	~~OR03S~~																													
8	OR04D																													
9	OR05D																													
10	OR06A	WT	G	10/26/23	1440		11	X	X	X																				
11	OR11																													
12	OR13D	WT	G	10/26/23	1323		11	X	X	V																				
13	OR13S																													
14	OR14D																													
15	OR14S																													
16	OR18																													

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-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gordon Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/26/23

Confidential

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 — GJ048761 JFB

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	P57S																											
2	P60																											
3	P61																											
4	P62																											
5	P63																											
6	P64																											
7	~~R10L~~																											
8	R11L																											
9	R13L																											
10	R61L																											
11	R72S																											
12	T43L																											
13	T44L																											
14	T45L																											
15	T46L																											
16	X301	WT	G	10/26/23	1530		2	X		X																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		10/26/23	1645			
					10/27/23	715

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/26/23

Confidential

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

GJ01876e1 STB

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	XTPW02	WT	G	10/26/23	1525		C																					
2	Field Blank																											
3	~~EB-6 Equipment Blank~~	WT	G	10/26/23	1458		11	X	X	X																		
4	10/26/23 dcl 0636 FD	WT	G	10/26/23	1435		2	1	X	X																		
5	~~EB-7 Equipment Blank 8~~	WT	G	10/26/23	1525		3	X		X																		
6	10/26/23 dcl																											
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-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daryl Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/26/23

Confidential

GJ04997

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

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	G07L																										
2	G08L																										
3	G09L																										
4	G12L	WT	G	10/27/23	1200		5	x	x	x		x															
5	G12S	WT	G	10/27/23	1221		1	x																			
6	G14L																										
7	G15L	WT	G	10/27/23	1040		(0)	dry																			
8	G15S	WT	G	10/27/23	1103		1	x																			
9	G16L	WT	G	10/27/23	1032		5	x	x	x		x															
10	G50L																										
11	G50S																										
12	G51L																										
13	G51S																										
14	G52L																										
15	G52S																										
16	G53L																										

10/27/23 ddo

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		10/27/23	1649		10/27/23	1649

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rasmussen

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/27/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 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	G53S																												
2	G54L	WT	G	10/27/23	1338		4	X		X																			
3	G54S	WT	G	10/27/23	1154		5	X		X																			
4	G55L																												
5	G55S																												
6	G56L																												
7	G56S																												
8	G57L	WT	G	10/27/23	1402		2	X		X																			
9	G57S																												
10	G58L	WT	G	10/27/23	1437		2	X		X																			
11	G58S																												
12	G59L	WT	G	10/27/23	1512		2	X		X																			
13	G59S																												
14	G60L																												
15	G60S																												
16	G61S																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1624							
					10/27/23	1649	4.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/23

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.

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	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	BA01																												
2	BA02																												
3	BA02L																												
4	BA03																												
5	BA03L																												
6	BA04																												
7	BA05																												
8	BA06																												
9	G02D																												
10	G02L	WT	G	10/27/23	1424		0			dry						10/27/23 lab													
11	G02S																												
12	G03L																												
13	G03S																												
14	G04L	WT	G	10/27/23	1457		0			dry						10/27/23 lab													
15	G06L																												
16	G06S	WT	G	10/27/23	1310		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-23Q4 Rev 0		10/27/23	1649		10/27/23	1649	8.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Hersen Membreño

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/23

Confidential

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

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	OM23S																											
2	OM24D																											
3	OM25D																											
4	OM25S																											
5	OR02	WT	G	10/27/23	1330		11	X	X	X																		
6	OR03D																											
7	OR03S																											
8	OR04D																											
9	OR05D																											
10	OR06A																											
11	OR11																											
12	OR13D																											
13	OR13S																											
14	OR14D																											
15	OR14S																											
16	OR18																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		10/27/23	1644			
					10/27/23	1649

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dorian Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/27/23

Confidential

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

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.
				DATE	TIME											Requested Analysis Filtered (Y/N)														
1	OR19																													
2	OR20																													
3	P01I																													
4	P01L																													
5	P01S																													
6	P02S																													
7	P04S																													
8	P05D																													
9	P05L																													
10	P05S																													
11	P36D																													
12	P36L	WT	G	10/27/23	1507		2	X		X																				
13	P36S																													
14	P37D																													
15	P37L	WT	G	10/27/23	1247		2	X		X																				
16	P38L																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1644							
					10/27/23	1649	8.0	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: Darryl Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/27/23

Confidential

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

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 #	Section D 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	L103																											
2	OM01	WT	G	10/27/23	1340		6	X	X	X																		
3	OM04S																											
4	OM05S																											
5	OM07																											
6	OM08																											
7	OM09																											
8	OM10																											
9	OM12																											
10	OM15																											
11	OM16																											
12	OM17																											
13	OM21																											
14	OM22D																											
15	OM22S																											
16	OM23D																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1624							
					10/27/23	1649	8.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rembelton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/23

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

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 9 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	P57S																											
2	P60																											
3	P61																											
4	P62																											
5	P63																											
6	P64																											
7	R10L																											
8	R11L																											
9	R13L																											
10	R61L																											
11	R72S																											
12	T43L	WT	G	10/27/23	1342		2	X		X																		
13	T44L	WT	G	10/27/23	1410		2	X		X																		
14	T45L	WT	G	10/27/23	1440		2	X		X																		
15	T46L																											
16	X301																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1649							
					10/27/23	1649	8.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Aaron Pemberton			
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	10/27/23	

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: 10 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	XTPW02																												
2	Field Blank																												
3	DM01 FD	WT	G	10/27/23	1340		6	X	X	X																			
EB-8	~~Equipment Blank 9~~	WT	G	10/27/23	1543		11	X		X																			
EB-9	~~Equipment Blank 10~~	WT	G	10/27/23	1540		5	X		X																			
	↳ 10/27/23 dup																												
	↳ 59L DUP	WT	G	10/27/23	1512		2	X		X																			
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-23Q4 Rev 0		10/27/23	1644		10/27/23	1679	5.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Newberry

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/23

Confidential

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

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	G53S																										
2	G54L																										
3	G54S																										
4	G55L																										
5	G55S																										
6	G56L																										
7	G56S																										
8	G57L																										
9	G57S																										
10	G58L																										
11	G58S																										
12	G59L																										
13	G59S																										
14	G60L																										
15	G60S	WT	G	10/31/23	1027		5	X		X																	
16	G61S																										

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-23Q4 Rev 0		10/31/23	1525							
					10/31/23	1525	6.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

Confidential

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

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	G62L																												
2	G63L																												
3	G63S																												
4	G64L																												
5	G64S																												
6	G65L	WT	G	10/31/23	1414		2	X		X																			
7	G65S	WT	G	10/31/23	1339		2	X		X																			
8	G66L	WT	G	10/31/23	1224		2	X		X																			
9	G66S	WT	G	10/31/23	1300		2	X		X																			
10	G67L																												
11	G67S																												
12	G70L																												
13	G71L																												
14	G71S																												
15	G72L																												
16	G73L																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/31/23	1525							
					10/31/23	1525	6.0	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 Rimbaugh

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

Confidential

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

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	P57S																											
2	P60																											
3	P61																											
4	P62																											
5	P63																											
6	P64																											
7	R10L																											
8	R11L																											
9	R13L																											
10	R61L	WT	G	10/31/23	1140		5	X		X																		
11	R72S																											
12	T43L																											
13	T44L																											
14	T45L																											
15	T46L																											
16	X301																											

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-23Q4 Rev 0		10/31/23	1525							
					10/31/23	1525	6.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 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	XTPW02																												
2	Field Blank																												
3	~~Equipment Blank 12~~ CB-11 10/31/23 dab	WT	G	10/31/23	1427		6	X		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-23Q4 Rev 0		10/31/23	1525							
					10/31/23	1525	6.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

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

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SAR-3 Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

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

SAR-3 Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

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

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

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

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
G71S	DC-G71#S	203	GMF	10/16/23	0918	26.72		BG
G72L	DC-G72!L	203	GMF		0923	21.40		
G73L	DC-G73!L	203	GMF		0927	27.20		
L103	DC-L103	204	LF		1217	1.91		
OM01	DC-OM01	201-202	AP1/2		1306	13.01		
OM04S	DC-OM04#S	201-202	AP1/2		1057	21.19	OR04S	
OM05S	DC-OM05#S	201-202	AP1/2		1257	22.21		
OM07	DC-OM07	201-202	AP1/2		1245	13.11		
OM08	DC-OM08	201-202	AP1/2		1134	14.96		
OM09	DC-OM09	201-202	AP1/2		1529	4.24		
OM10	DC-OM10	201-202	AP1/2		0918	13.49		
OM12	DC-OM12	201-202	AP1/2		1148	15.89		
OM15	DC-OM15	201-202	AP1/2		0909	22.88		
OM16	DC-OM16	201-202	AP1/2		1044	26.94		
OM17	DC-OM17	201-202	AP1/2		1023	15.26		
OM21	DC-OM21	201-202	AP1/2		1059	12.66		
OM22S	DC-OM22#S	201-202	AP1/2		1333	20.53		
OM22D	DC-OM22&D	201-202	AP1/2		1335	20.08		
OM23S	DC-OM23#S	201-202	AP1/2		1403	42.47		
OM23D	DC-OM23&D	201-202	AP1/2		1407	28.95		
OM24D	DC-OM24&D	201-202	AP1/2		\	\	Not Accessible	
OM25S	DC-OM25#S	201-202	AP1/2		1436	16.20		
OM25D	DC-OM25&D	201-202	AP1/2	—	1440	58.26		—

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

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

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

Well	Unique ID	Unit Numt	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
P36S	DC-P36#S	204	LF	10/16/23	1043	12.82		BG
P36D	DC-P36&D	204	LF		1040	13.00		
P37L	DC-P37!L	204	LF		1129	14.60	Top of Pump	
P37D	DC-P37&D	204	LF		1131	17.33		
P38L	DC-P38!L	204	LF		1212	19.48		
P38S	DC-P38#S	204	LF		1206	21.00		
P39L	DC-P39!L	204	LF		1248	10.65		

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

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

SAR-3: Episodic Depth to Groundwater Measurements
All DTWs on SAR-3 must be collected within 24 hours.
Plant: DC
Event: DC-23Q4 Rev 1

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

BA02L 10/18/23-1330-11.31

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

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
BA01	DC-BA01	205	BAB	10/16/23	1435	16.25	21615533	Y	\	\	\	NOT connected	BG
BA02	DC-BA02	205	BAB		1423	13.03	21615636	Y	\	\	\	NOT connected	
BA02L	DC-BA02!L	205	BAB		1425	PUMP	21615682	Y	ØØ.Ø1	Y	H		
BA03	DC-BA03	205	BAB		1324	11.Ø6	21615637	Y	\	\	\	NOT connected	
BA03L	DC-BA03!L	205	BAB		132Ø	10.85	21615687	Y	568.37	Y	M	Below Pump	
BA04	DC-BA04	205	BAB		1442	7.75	21615631	Y	\	\	\	NOT connected	
BA05	DC-BA05#	205	BAB		15Ø6	26.6Ø	21615540	Y	572.7Ø	Y	M		
BA06	DC-BA06	205	BAB		15ØØ	24.7Ø	21615525	Y	571.Ø6	Y	M		
G02S	DC-G02#S	204	LF		1449	14.23	21615554	Y	\	\	\	NOT connected	
G50S	DC-G50#S	203	GMF		1131	18.8Ø	21615535	Y	604.91	Y	M		
G51S	DC-G51#S	203	GMF		1144	19.81	21615691	Y	599.96	Y	M		
G54L	DC-G54!L	203	GMF		1158	21.89	21615690	Y	600.98	Y	M		
G54S	DC-G54#S	203	GMF		1154	28.ØØ	21615684	Y	599.83	Y	M		
G57S	DC-G57#S	203	GMF		1Ø22	24.80	21615683	Y	597.83	Y	M		
G60L	DC-G60!L	203	GMF		1Ø38	18.65	21615678	Y	596.69	Y	M		
G60S	DC-G60#S	203	GMF		1Ø41	26.67	21615677	Y	586.02	Y	H		
G64L	DC-G64!L	203	GMF		111Ø	24.58	21615688	Y	622.77	Y	M		
G64S	DC-G64#S	203	GMF	—	1112	25.5Ø	21615632	Y	599.02	Y	M		—

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

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down-loaded?	Batt (H/M/L/R)		
OM01	DC-OM01	201-202	AP1/2	10/16/23	1306	13.01	21615685	Y	582.15	Y	M		BG
OM04S	DC-OM04#S	201-202	AP1/2		1057	21.19	21615542	Y	586.09	Y	H		
OM07	DC-OM07	201-202	AP1/2		1245	13.11	21615541	Y		Y			
OM12	DC-OM12	201-202	AP1/2		1148	15.89	21615527	Y	577.30	Y	H		
OM16	DC-OM16	201-202	AP1/2		1044	26.94	21615539	Y	\	\	\	Not Connected	
OM17	DC-OM17	201-202	AP1/2		1023	15.26	21615693	Y	\	\	\	Not Connected	
OM21	DC-OM21	201-202	AP1/2		1059	12.66	21615593	Y	9.42	Y	H		
OM22D	DC-OM22&D	201-202	AP1/2		13.35	20.08	21615592	Y	578.88	Y	M		
OM23D	DC-OM23&D	201-202	AP1/2		1407	38.95	21615591	Y	\	\	\	Not Connected	
OM24D	DC-OM24&D	201-202	AP1/2	\	\	\	21615522	\	\	\	\	Inaccessible	
OM25S	DC-OM25#S	201-202	AP1/2		1436	58.20	21615681	Y	\	\	\	Not Connected	
OR02	DC-OR02	201-202	AP1/2		1254	7.81	21615679	Y	593.42	Y	M		
OR03D	DC-OR03&D	201-202	AP1/2		1244	45.45	21615577	Y	582.75	Y	M		
OR04D	DC-OR04&D	201-202	AP1/2		1055	21.87	21615570	Y	585.76	Y	H		
OR06A	DC-OR06!A	201-202	AP1/2		1235	15.14	21615692	Y	\	\	\	Not Connected	
OR11	DC-OR11	201-202	AP1/2		1218	32.28	21615686	Y	564.14	Y	M		
OR13S	DC-OR13#S	201-202	AP1/2		1203	14.72	21615676	Y	\	\	\	Not Connected	
OR13D	DC-OR13&D	201-202	AP1/2	—	1305	14.62	21564135	\	\	\	\	Wasps	—

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

Well	Unique ID	Unit Number	Unit Name	Date	Time	Measured Depth to Water (ft bmp)	On-site Transducer Data					Comments	Initials
							Data Logger Serial No.	Does Data 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	10/16/23	1110	11.79	21615611	Y	587.01	Y	H		DG
OR19	DC-OR19	201-202	AP1/2	"	1142	25.80	21615634	Y	571.88	Y	M		"
OR20	DC-OR20	201-202	AP1/2	"	1205	22.30	21615610	Y	565.16	Y	M		"

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

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/19/23 Start Time: 1321 Finish/Sample Time: 1430

Well Depth (Bottom) From MP: — ft Min. Purge Volume: 1.5 Gal (L)

Depth to Water From MP: 14.21 ft Total Purge Volume: 1.8 Gal (L)

Water Column Length: — ft Max Drawdown: ___ ft

Well Water Volume: — Gal / L Total Drawdown: 0.92 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	1344	15.13	100	6.72	889	13.70	-97	0.71	0.2
2	1345	15.14	100	6.70	880	13.70	-97	0.55	0.0
3	1346	15.13	100	6.71	873	13.70	-97	0.50	0.1
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

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P, ~~500~~mL) 1000mL

Final DTW: 15.13 ft

Comments

Sampler's Signature: Joseph R Reed

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/23/23 Start Time: 1459 Finish/Sample Time: 1609

Well Depth (Bottom) From MP: 37.30 ft
Depth to Water From MP: 18.94 ft
Water Column Length: 18.36 ft
Well Water Volume: 11.12 Gal / L

Min. Purge Volume: 1500 Gal / L
Total Purge Volume: 1800 Gal / L
Max Drawdown: — ft
Total Drawdown: 4.55 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	1522	21.45	100	7.07	753	17.72	-50	.63	28.3
2	1523	21.53	100	7.06	752	17.70	-48	.52	25.1
3	1524	21.48	100	7.08	747	17.76	-47	.48	21.8
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:
Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong
Color ☑ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 23.49 ft

Comments

Sampler's Signature:

BG

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/26/23 Start Time: 1032 Finish/Sample Time: 1155

Well Depth (Bottom) From MP: 32.17 ft
Depth to Water From MP: 19.95 ft
Water Column Length: 12.22 ft
Well Water Volume: 7.40 Gal / L

Min. Purge Volume: 1000 Gal / L
Total Purge Volume: 1400 Gal / L
Max Drawdown: — ft
Total Drawdown: 7.65 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	1103	24.5	100	7.18	803	17.17	-85	.80	19.4
2	1104	24.34	100	7.15	801	14.98	-82	.76	17.6
3	1105	24.61	100	7.12	805	14.80	-82	.77	18.5
4	1106	24.55	100	7.12	801	14.76	-81	.77	18.1
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong
Color ☑ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 27.6 ft

Comments

Sampler's Signature:

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/27/23 Start Time: 1204 Finish/Sample Time: 1338

Well Depth (Bottom) From MP: 40.30 ft
Depth to Water From MP: 21.18 ft
Water Column Length: 19.12 ft
Well Water Volume: 11.58 Gal / L

Min. Purge Volume: 1000 Gal / L
Total Purge Volume: 1300 Gal / L
Max Drawdown: — ft
Total Drawdown: 4.83 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1215	22.90	100	6.58	1610	18.30	-17	1.86	6.0
2	1216	23.01	100	6.57	1610	18.22	-18	1.84	0.0
3	1217	23.14	100	6.53	1610	18.14	-17	1.81	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong
Color ☒ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 26.01 ft

Comments

Sampler's Signature:

BG

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

WELL/SAMPLE POINT G54S **Purge Method:** ~~Portable~~ BLADDER

Date: 10/27/23 Start Time: 1024 Finish/Sample Time: 1154

Well Depth (Bottom) From MP: 51.26 ft
Depth to Water From MP: 23.23 ft
Water Column Length: 28.03 ft
Well Water Volume: 16.97 Gal / L

Min. Purge Volume: 1000 Gal / L
Total Purge Volume: 1500 Gal / L
Max Drawdown: — ft
Total Drawdown: 3.07 ft

Reading (Units)	Time	Depth 23 (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1044	~~24.92~~	100	6.78	1030	15.44	-50	2.37	18.7
2	1045	~~24.94~~ 23.97	100	6.78	1030	15.49	-48	1.36	15.3
3	1046	~~24.97~~ 23.97	100	6.77	1030	15.31	-47	1.30	15.2
4	1047	24.21	100	6.77	1030	15.46	-47	1.67	16.1
5	1048	24.51	100	6.77	1030	15.43	-46	1.53	15.4
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:
Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong
Color ☑ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 26.30 ft

Comments

Sampler's Signature:

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/20/23 Start Time: 1138 Finish/Sample Time: 1247

Well Depth (Bottom) From MP: 37.40 ft
Depth to Water From MP: 24.83 ft
Water Column Length: 12.57 ft
Well Water Volume: 7.61 Gal / L

Min. Purge Volume: 1500 Gal / L
Total Purge Volume: 2000 Gal / L
Max Drawdown: ~~~~ ft
Total Drawdown: 1.05 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	25.44	100	6.42	1390	14.94	77	2.63	45.9
2	1206	25.57	100	6.42	1400	15.03	77	2.03	42.5
3	1207	25.57	100	6.41	1400	14.99	78	1.35	40.9
4	1208	25.55	100	6.42	1400	15.00	78	1.26	37.4
5	1209	25.55	100	6.41	1400	14.98	78	9.25	36.2
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong
Color ☑ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	X	
Casing locked/secure	1	X
Well cap fits securely.		X
Good seal/drainage	X	
Well has weep holes	X	

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 25.88 ft

Comments

Sampler's Signature:

BG

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

WELL/SAMPLE POINT G60L **Purge Method:** BLADDER

Date: 10/23/23 Start Time: 1005 Finish/Sample Time: 1148

Well Depth (Bottom) From MP: 27.00 ft
Depth to Water From MP: 19.26 ft
Water Column Length: 7.74 ft
Well Water Volume: 4.69 Gal / L

Min. Purge Volume: 1500 Gal / L
Total Purge Volume: 1700 Gal / L
Max Drawdown: — ft
Total Drawdown: 5.28 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	1034	22.75	100	5.98	897	14.37	66	2.47	10.2
2	1035	22.86	100	5.97	896	14.37	67	2.72	9.8
3	1036	22.94	100	5.99	888	14.41	68	2.71	~~8~~ 8.6
4	1037	23.04	100	5.99	885	14.44	68	2.88	7.8
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:
Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong
Color ☑ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 24.54 ft

Comments

Sampler's Signature:

BG

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

WELL/SAMPLE POINT G60S 0420 **Purge Method:** ~~BLADDER~~ Portable / Submersible

Date: ~~10/23/23~~ 10/31/23 **Start Time:** ~~0947~~ App 10/31/23 **Finish/Sample Time:** ~~1002~~ 1027

Well Depth (Bottom) From MP: 39.20 ft **Min. Purge Volume:** — Gal / L

Depth to Water From MP: ~~25.73~~ 25.84 ft **Total Purge Volume:** 1000 Gal / L (mL)

Water Column Length: 13.36 ft **Max Drawdown:** — ft

Well Water Volume: 8.08 Gal / 0 **Total Drawdown:** 0.76 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	0935	26.60	100	6.64	949	9.28	-11	3.14	71000
2	0937	26.60	100	6.64	951	9.51	-10	3.10	71000
3	0939	26.60	100	6.64	953	9.55	-10	3.02	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		X
Well has weep holes		X

BOTTLE INFORMATION:

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

5

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 26.60 ft

Comments 10/23/23 - BLADDER PUMP DOESNT WORK

Sampler's Signature:

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/26/23 Start Time: 1220 Finish/Sample Time: 1353

Well Depth (Bottom) From MP: 30.46 ft
Depth to Water From MP: 24.66 ft
Water Column Length: 5.8 ft
Well Water Volume: 3.51 Gal / L

Min. Purge Volume: 1000 Gal / L
Total Purge Volume: 1300 Gal / L
Max Drawdown: ~ ft
Total Drawdown: 2.24 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	1238	25.62	100	6.82	1000	16.16	14	3.44	9.4
2	1239	25.65	100	6.82	1000	15.96	4	3.59	10.7
3	1240	25.67	100	6.82	1000	16.16	14	3.44	9.4
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:
Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong
Color ☑ None ☐ Slight ☐ Mod. ☐ Strong
Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 26.90 ft

Comments

Sampler's Signature:

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/26/23 Start Time: 1205 Finish/Sample Time: 1338

Well Depth (Bottom) From MP: 39.50 ft Min. Purge Volume: 1000 Gal / L

Depth to Water From MP: 25.6 ft Total Purge Volume: 1500 Gal / L

Water Column Length: 13.9 ft Max Drawdown: — ft

Well Water Volume: 8.42 Gal / L Total Drawdown: 2.33 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	1223	26.03	100	6.93	869	15.77	-44	9.13	35.6
2	1224	26.05	100	6.95	868	15.72	-44	7.00	33.7
3	1225	26.06	100	6.93	870	15.76	-45	1.71	31.7
4	1226	26.08	100	6.91	872	15.69	-45	1.30	25.4
5	1228	26.13	100	6.89	874	15.58	-44	1.19	25.5
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HORIBA

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

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

BOTTLE INFORMATION:

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

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Final DTW: 27.93 ft

Comments

Sampler's Signature:

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Duck Creek

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

Date: 10/26/2023 Start Time: 1526 Finish/Sample Time: 1530

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1									
	1528	—	—	6.53	19,200	18.52	141	6.41	19.7
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

BOTTLE INFORMATION:

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

(2)

Filtered	
Qty	**Bottles**
	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
	General (P,500mL)

Ferrous Iron - mg/L

Comments

Sampler's Signature:

Multiparameter Meter Field Calibration Checklist

Field Personnel:	LR JR	Location:	DUCK CREEK
Weather:	44°-66° SUNNY NW 1mph	Environment:	GRASS, TREE, BUSHES, GRAVEL
Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number: PW 26YJD3
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	3.91	s.u.	±0.1 s.u.	P	NA	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.98	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.91	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1950	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.7	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 0950

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24
pH 10.00b	9.87	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25
SC 1000	1000	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1542

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NA	—	MSI	023067-01	3/14/2025
pH 7.00a	6.97	s.u.	±0.1 s.u.	P	NA	—	MSI	023051-02	2/21/2025
pH 10.00a	10.01	s.u.	±0.1 s.u.	P	NA	—	MSI	022361-01	12/27/2024
SC 1000	~~990~~ 990	µS/cm	±5%	P	NA	—	Ricca	4209A12	Aug-24
DO (Zero pt)	0	mg/L	±0.1 mg/L	P	NA	—	Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU	P	NA	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

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

Comments:

Signature: LR Date: 10/17/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed	Location:	Vistra Duck Creek
Weather:	50-70°F partcloudy wind 9-17mph	Environment:	grassy

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PW2GYJD3	
Water Level Meter	Make: Heron	Model: Series 1900	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	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	10.00	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.30	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2.000	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	240	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.05	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.0	%	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: 940

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	2GE870	May-24
pH 7.00b	7.00	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	998.1	µS/cm	±5%			Ricca	4209A12	Aug-~~23~~ 24

BG 10/30/23

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	4.01	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	1010	µS/cm	±5%				Ricca	4209A12	Aug-~~23~~ 24
DO (Zero pt)	0.05	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)

BG 10/30/23

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	Aug-23
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Joseph R Reed	Date:	10/18/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed	Location:	Duck Creek Power - Mistra
Weather:	Rain 55-60°F Wind 9-13 mph	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PW2GYJD3	
Water Level Meter	Make: Heron	Model: Series 1101	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N		MSI	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	10.00	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	3GA1071	Jan-24
ORP	240	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.0	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.5	%	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: 930			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.96	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	May-24
pH 7.00b	6.99	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	995.8	µS/cm	±5%			Ricca	4209A12	~~Aug 23~~ Aug 24

Approx. every 4 hrs, unless only one well

BG 10/30/23

CCV (Continued Calibration Verification):					Time: 1320				
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	7.02	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	1000	µS/cm	±5%				Ricca	4209A12	~~Aug 23~~ 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

BG 10/30/23

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	023067-01	3/14/2025
7.00a		s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
10.00a		s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000		µS/cm	±5%				Ricca	4209A12	~~Aug 23~~ 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)

BG 10/30/23

Comments:

Signature:	Joseph K Reed	Date:	10/19/23

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Logan Ross	Location:	DUCK CREEK
Weather:	Sunny 47°-68° 10mph NW	Environment:	GRASS, WOODLAND, GRAVEL

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	PW264JD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	19FF211192MB	

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	NA	NA	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	9.98	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	0	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	247	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	96	%	97-100%	P			Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 0950			
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	Geotech	3GB1049	Feb-25
pH 7.00b	7.14	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24
pH 10.00b	9.17	s.u.	±0.15 s.u.	F	CAL 10.00	Geotech	3GA1134	Jan-25
SC 1000	960	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1447				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.09	s.u.	±0.1 s.u.	P	NA	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.92	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	9.96	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	1040	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)	0.5	NTU	<2 NTU	P	NA	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	10-20-23

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	57° - 64° F, sunny, wind NW at 12 mph	Environment:	grass, dirt

Multiparameter Water Meter	Make: AT	Model: 600	Serial Number:	762215	
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	4.15	s.u.	±0.1 s.u.	F	Yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.08	s.u.	±0.1 s.u.	P	Yes	7.00	MSI	023051-02	2/21/2025
pH 10.00a	10.36	s.u.	±0.1 s.u.	P	Yes	10.00	MSI	022361-01	12/27/2024
SC Zero (DI)	1.42	µS/cm	0<25 µS/cm	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1974.7	µS/cm	±5%	P	NO	–	Geotech	3GF1197	Jun-24
ORP	245.8	mV	±15 mV	P	NO	–	InSitu	3GD927	Jan-24
DO (Zero pt)	0.10	mg/L	±0.1	P	NO	–	Macron	#000228049	8/26/2025
DO (Saturated)	97.72	%	97-100%	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.08	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

245 @ 12°C

ICV (Initial Calibration Verification)					Time: 0944			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	–	Geotech	3GB1049	Feb-25
pH 7.00b	6.92	s.u.	±0.15 s.u.	P	–	Geotech	2GF113	Jun-24
pH 10.00b	10.08	s.u.	±0.15 s.u.	P	–	Geotech	3GA1134	Jan-25
SC 1000	1008.1	µS/cm	±5%	P	–	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1445				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	–	MSI	023067-01	3/14/2025
pH 7.00a	7.03	s.u.	±0.1 s.u.	P	NO	–	MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.	P	NO	–	MSI	022361-01	12/27/2024
SC 1000	987.36	µS/cm	±5%	P	NO	–	Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P	NO	–	Macron	#000228049	8/26/2025
Turbidity (DI)	0.08	NTU	<2 NTU	P	NO	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	10/20/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duckcreek
Weather:	52°-75°F Sunny Wind SE 12mph	Environment:	grass, woods, farm field

Multiparameter Water Meter	Make: AT	Model: 600	Serial Number:	762215	
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	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.00	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.07	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC Zero (DI)	19.81	µS/cm	0<25 µS/cm	P			Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020.1	µS/cm	±5%	P			Geotech	3GF1197	Jun-24
ORP	242.8	mV	±15 mV	P			InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1	P			Macron	#000228049	8/26/2025
DO (Saturated)	98.13	%	97-100%	P			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

242 @ 15°c

ICV (Initial Calibration Verification)					Time: 0915			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	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	1006.6	µS/cm	±5%	P		Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1600				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.	P			MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.	P			MSI	022361-01	12/27/2024
SC 1000	998.34	µS/cm	±5%	P			Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L	P			Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU	✓	✓	✓	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	10/23/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Logan Ross	Location:	DUCK CREEK
Weather:	Sunny 59-74° 13mph S	Environment:	GRASS WOODS, GRAVEL

Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	PW2GYJD3	
Water Level Meter	Make: HERON	Model: 1900	Serial Number:	19FF2202[illegible]	

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	023067-01	3/14/2025
pH 7.00a	6.79	s.u.	±0.1 s.u.	F	6.98	Y	MSI	023051-02	2/21/2025
pH 10.00a	9.90	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	1970	µS/cm	±5%	P	NO	-	Geotech	3GF1197	Jun-24
ORP	241	mV	±15 mV	P	NO	-	InSitu	3GD927	Jan-24
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 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0850

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.93	s.u.	±0.15 s.u.	P	-	Geotech	3GB1049	Feb-25
pH 7.00b	7.07	s.u.	±0.15 s.u.	P	-	Geotech	2GF113	Jun-24
pH 10.00b	10.15	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: 1616

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	6.92	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	10.0	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:	Logan Ross	Date:	10/23/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Acron Pemberton	Location:	Duck creek
Weather:	67°-77°F mostly sunny Wind SW 12mph	Environment:	Woods, grass, dirt, gravel
Multiparameter Water Meter — Make: Hach	Model: HQ5000	Serial Number:	PV2GK503
Water Level Meter — Make: Heron	Model: Dipper T	Serial Number:	~~PV2GK503~~ 3717-T AP 10/24/23

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.99	s.u.	±0.1 s.u.	P	No	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	237	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.1	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.5	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification)					Time: 0915			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.09	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1010	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1513				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.09	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1030	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature: [signature] Date: 10/24/2023

BG

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	62°-72° F Cloudy Rain Wind SW 8mph	Environment:	Woods, grass, gravel, dirt

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PV2GYJD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	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	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2010	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	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)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification)					Time: 0915			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.13	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: 1545				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.04	s.u.	±0.1 s.u.				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	1030	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:	[signature]	Date:	10/25/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Duck creek
Weather:	64°- 70°F cloudy, rain wind S 10mph	Environment:	woods, mud, grass

Multiparameter Water Meter	Make: Hach	Model: HQ40d	Serial Number:	WU683C85	
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	4.07	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	9.96	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	2030	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	234	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.2	%	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

237 @ 19°C

ICV (Initial Calibration Verification)					Time: 0915			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.03	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.87	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	1010	µS/cm	±5%			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	4.04	s.u.	±0.1 s.u.	P	NC	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	10.09	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1036	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	10/26/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Logan Ross		Location:	DUCK CREEK	
Weather:	70°-64° CLOUDY/RAIN 9mphS		Environment:	Grass, WOODLAND, GRAVEL	
Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number:	PW2GYJD3	
Water Level Meter	Make: HERRON	Model: Dipper-T	Serial Number:	11FF220930SML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.10	s.u.	±0.1 s.u.	P	—	—	MSI	023067-01	3/14/2025
pH 7.00a	6.93	s.u.	±0.1 s.u.	P	—	—	MSI	023051-02	2/21/2025
pH 10.00a	9.53	s.u.	±0.1 s.u.	F	Y	9.99	MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	—	—	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1999	µS/cm	±5%	P	—	—	Geotech	3GF1197	Jun-24
ORP	236	mV	±15 mV	P	—	—	InSitu	3GD927	Jan-24
DO (Zero pt)	.23	mg/L	±0.1	F	Y	0.0	Macron	#000228049	8/26/2025
DO (Saturated)	98	%	97-100%	P	—	—	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.2	NTU	<2 NTU	P	—	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0908

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.91	s.u.	±0.15 s.u.	P	NA	Geotech	2GF113	Jun-24
pH 10.00b	10.01	s.u.	±0.15 s.u.	P	NA	Geotech	3GA1134	Jan-25
SC 1000	1050	µS/cm	±5%	P	NA	Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

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: 10/26/23

Logan Ross

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Brendon Glenner	Location:	Duck Creek PS
Weather:	65° Cloudy 9 Mph NNE	Environment:	Grass Field
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: WUG83C85
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	4.01	s.u.	±0.1 s.u.	P	N	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	8	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2040	µS/cm	±5%				Geotech	3GA1071	Jan-24
ORP	233	mV	±15 mV				InSitu	2G~~1762~~	~~Jun-23~~
DO (Zero pt)	.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1423			
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	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1020	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	.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	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Brendon Glenner	Date:	10/26/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aeron Pemberton	Location:	Duck creek
Weather:	68°-71° & cloudy wind SW 11mph	Environment:	grass, mud

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	WUG63185	
Water Level Meter	Make: Heron	Model: Digitape	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	NA	MSI	023067-01	3/14/2025
pH 7.00a	6.82	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	2010	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	231	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	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)

Approx. every 4 hrs, unless only one well

236 @ 20°C

ICV (Initial Calibration Verification)					Time: 0930			
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	6.85	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.04	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: 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	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.08	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)	0.009	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	10/27/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Logan Ross	Location:	DUCK CREEK
Weather:	36-69 CLOUDY/RAIN 8mph S	Environment:	GRASSLAND, WOODLAND
Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number: FW2GYJD3
Water Level Meter	Make: Herron	Model: Dipper-T	Serial Number: 11FF209305ML

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	N	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	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	.002	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2080	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	238	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	.04	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	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 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	4.09	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	10.13	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	979	µS/cm	±5%	P	NA	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	4.08	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	9.98	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1010	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)	1.7	NTU	<2 NTU	P	N	NA	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	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: 10/27/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed	Location:	Duck Creek Power
Weather:	Cloudy/rain	Environment:	wet grassy

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	4L9KJ9HA	
Water Level Meter	Make: Heron	Model: series 1000	Serial Number:	19FT-211192HB	

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	7.00	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	243	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.01	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.8	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.8	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 1020

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.97	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	10.00	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: 1330

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 1000	1010	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 A Reed Date: 10/27/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Remberton	Location:	Duck creek
Weather:	35°-41° F sunny winds NW 11mph	Environment:	grass, mud, gravel

Multiparameter Water Meter	Make: AT	Model: 600	Serial Number:	606127	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	3117-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.	P	yes	4.00	MSI	023067-01	3/14/2025
pH 7.00a	7.09	s.u.	±0.1 s.u.	P	yes	7.02	MSI	023051-02	2/21/2025
pH 10.00a	10.41	s.u.	±0.1 s.u.	P	yes	10.04	MSI	022361-01	12/27/2024
SC Zero (DI)	12.8	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	235.1	mV	±15 mV	P	NO	—	InSitu	3GD927	Jan-24
DO (Zero pt)	0.04	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)	0.00	NTU	<2 NTU	P	NO	—	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

235 @ 20 °C

ICV (Initial Calibration Verification)					Time: 1000			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	6.86	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.93	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1018	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	4.05	s.u.	±0.1 s.u.	P	NO	NA	MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	1012	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

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

Comments:

Signature:		Date:	10/30/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Logan R	Location:	DUCK CREEK
Weather:	Sunny 26°-41° 11mph NW	Environment:	GRASSLAND, WOODLAND
Multiparameter Water Meter	Make: HORIBA	Model: U-5000	Serial Number: PW2G4JD3
Water Level Meter	Make: HERRON	Model: dipper-T	Serial Number: 11F1=220930SML 19FE2111192HB

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	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)	0.000	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1970	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	739	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	.00	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.6	%	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 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0900

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.11	s.u.	±0.15 s.u.	P	NA	Geotech	3GB1049	Feb-25
pH 7.00b	7.02	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.07	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	967	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1516

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	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	9.96	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)	0.00	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: 10/30/23

BG

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Robertson	Location:	Duck creek
Weather:	32 and 0° F Sunny Wind NW 4 mph	Environment:	grass, mud

Multiparameter Water Meter	Make: Hach	Model: U 5000	Serial Number:	GUS83C85	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	3717-T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	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	10.07	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2020	µS/cm	±5%				Geotech	3GF1197	Jun-24
ORP	230	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.9	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

237 @ 19°C

ICV (Initial Calibration Verification)					Time: 0910			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N/A	Geotech	3GB1049	Feb-25
pH 7.00b	6.88	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	10.10	s.u.	±0.15 s.u.			Geotech	3GA1134	Jan-25
SC 1000	1030	µS/cm	±5%			Ricca	4209A12	Aug-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1420				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	P	NO	N/A	MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	023051-02	2/21/2025
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	022361-01	12/27/2024
SC 1000	987	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

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

Comments:

Signature:		Date:	10/31/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed	Location:	Duck Creek
Weather:	40s 60°F Partly cloudy	Environment:	Grassy

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	YL9KJ9HA	
Water Level Meter	Make: Heron	Model: Series 1900	Serial Number:	19FF211192HB	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.02	s.u.	±0.1 s.u.				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) OR	0.01	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	241	mV	±15 mV				InSitu	3GD927	Jan-24
DO (Zero pt)	0.01	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.1	%	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: 945

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	N	Geotech	3GB1049	Feb-25
pH 7.00b	6.99	s.u.	±0.15 s.u.			Geotech	2GF113	Jun-24
pH 10.00b	9.99	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: 1400

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N		MSI	023067-01	3/14/2025
pH 7.00a	7.01	s.u.	±0.1 s.u.				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	1020	µS/cm	±5%				Ricca	4209A12	Aug-24
DO (Zero pt)	0.02	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 K Reed	Date:	11/3/23

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

December 11, 2023

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

Dear Daryl Johnson:

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

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

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

Sincerely,

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 GJ03211

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
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Work Order GJ03501

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 GJ03741

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
NO	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 GJ04132

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 GJ04134

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 GJ04374

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
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 GJ04588

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
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order GJ04862

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
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 GJ04998

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 GJ05392

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
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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ANALYTICAL RESULTS

Sample: GJ03211-01 **Sampled:** 10/17/23 11:14
Name: OR13S **Received:** 10/17/23 16:51
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	1.55	pCi/L			1	1.16	11/08/23 19:09	PACE	904.0 903.0

Sample: GJ03211-02 **Sampled:** 10/17/23 16:45
Name: EB-1 **Received:** 10/17/23 16:51
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	0.510 J	pCi/L			1	0.55	11/08/23 19:09	PACE	904.0 903.0

Sample: GJ03501-01 **Sampled:** 10/18/23 13:25
Name: BA01 **Received:** 10/18/23 17:13
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	0.192 U	pCi/L			1	0.773	11/08/23 19:09	PACE	904.0 903.0

Sample: GJ03501-02 **Sampled:** 10/18/23 14:34
Name: BA02 **Received:** 10/18/23 17:13
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	0.246 U	pCi/L			1	0.504	11/08/23 19:09	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ03501-03 **Sampled:** 10/18/23 09:45
Name: BA03 **Received:** 10/18/23 17:13
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	0.697	pCi/L			1	0.511	11/07/23 13:38	PACE	904.0 903.0

Sample: GJ03501-04 **Sampled:** 10/18/23 09:50
Name: BA03L **Received:** 10/18/23 17:13
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	0.102 U	pCi/L			1	0.542	11/07/23 13:38	PACE	904.0 903.0

Sample: GJ03501-05 **Sampled:** 10/18/23 15:40
Name: BA04 **Received:** 10/18/23 17:13
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	pCi/L			1	0.564	11/07/23 13:38	PACE	904.0 903.0

Sample: GJ03501-06 **Sampled:** 10/18/23 13:25
Name: BA01 DUP **Received:** 10/18/23 17:13
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	0.644	pCi/L			1	0.462	11/07/23 13:38	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ03741-01 **Sampled:** 10/19/23 11:40
Name: BA05 **Received:** 10/19/23 16:42
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	0.501	pCi/L			1	0.43	11/07/23 13:38	PACE	904.0 903.0

Sample: GJ03741-02 **Sampled:** 10/19/23 13:09
Name: BA06 **Received:** 10/19/23 16:42
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	0.409 J	pCi/L			1	0.426	11/07/23 13:38	PACE	904.0 903.0

Sample: GJ03741-03 **Sampled:** 10/19/23 14:30
Name: G02S **Received:** 10/19/23 16:42
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	0.753	pCi/L			1	0.402	11/07/23 13:38	PACE	904.0 903.0

Sample: GJ04132-01 **Sampled:** 10/23/23 16:09
Name: G50S **Received:** 10/23/23 17:34
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	0.776	pCi/L			1	0.48	11/07/23 19:19	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04132-02 **Sampled:** 10/23/23 11:48
Name: G60L **Received:** 10/23/23 17:34
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	0.919	pCi/L			1	0.433	11/07/23 19:19	PACE	904.0 903.0

Sample: GJ04132-03 **Sampled:** 10/23/23 13:35
Name: G61S **Received:** 10/23/23 17:34
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	1.04	pCi/L			1	0.517	11/07/23 19:19	PACE	904.0 903.0

Sample: GJ04132-04 **Sampled:** 10/23/23 14:11
Name: OM22D **Received:** 10/23/23 17:34
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	2.45	pCi/L			1	0.707	11/07/23 19:19	PACE	904.0 903.0

Sample: GJ04132-05 **Sampled:** 10/23/23 12:54
Name: OM23D **Received:** 10/23/23 17:34
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	1.26	pCi/L			1	0.447	11/08/23 22:56	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04132-06 **Sampled:** 10/23/23 10:49
Name: OM24D **Received:** 10/23/23 17:34
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	1.74	pCi/L			1	0.439	11/08/23 22:53	PACE	904.0 903.0

Sample: GJ04132-07 **Sampled:** 10/23/23 11:30
Name: OM25S **Received:** 10/23/23 17:34
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	7.02	pCi/L			1	1.18	11/08/23 22:53	PACE	904.0 903.0

Sample: GJ04132-08 **Sampled:** 10/23/23 15:30
Name: OR03D **Received:** 10/23/23 17:34
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	6.16	pCi/L			1	1.03	11/08/23 22:53	PACE	904.0 903.0

Sample: GJ04132-09 **Sampled:** 10/23/23 15:45
Name: EB-3 **Received:** 10/23/23 17:34
Matrix: DI Water - Equipment Blank **PO #:** 1728919

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	0.452	11/08/23 22:53	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04134-01 **Sampled:** 10/20/23 12:47
Name: G57S **Received:** 10/20/23 16:14
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	1.88	pCi/L			1	0.584	11/07/23 19:19	PACE	904.0 903.0

Sample: GJ04374-01 **Sampled:** 10/24/23 12:48
Name: OR20 **Received:** 10/24/23 16:39
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	0.493 J	pCi/L			1	1.11	11/11/23 11:15	PACE	904.0 903.0

Sample: GJ04374-02 **Sampled:** 10/24/23 11:29
Name: OR11 **Received:** 10/24/23 16:39
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	1.1	pCi/L			1	0.717	11/11/23 11:15	PACE	904.0 903.0

Sample: GJ04374-03 **Sampled:** 10/24/23 15:03
Name: OM16 **Received:** 10/24/23 16:39
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	0.972 J	pCi/L			1	1.26	11/11/23 11:15	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04374-04 **Sampled:** 10/24/23 15:30
Name: EB-4 **Received:** 10/24/23 16:39
Matrix: DI Water - Equipment Blank **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.878	pCi/L			1	0.523	11/11/23 11:15	PACE	904.0 903.0

Sample: GJ04374-05 **Sampled:** 10/24/23 11:29
Name: OR-11 FD **Received:** 10/24/23 16:39
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	0.86	pCi/L			1	0.398	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04588-01 **Sampled:** 10/25/23 10:15
Name: OM04S **Received:** 10/25/23 16:56
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	1.23	pCi/L			1	0.493	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04588-02 **Sampled:** 10/25/23 15:38
Name: OM21 **Received:** 10/25/23 16:56
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	1.39	pCi/L			1	0.702	11/13/23 17:36	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04588-03 **Sampled:** 10/25/23 11:37
Name: OR04D **Received:** 10/25/23 16:56
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	0.500 J	pCi/L			1	0.752	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04588-04 **Sampled:** 10/25/23 14:20
Name: OR14D **Received:** 10/25/23 16:56
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	2.65	pCi/L			1	0.943	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04588-05 **Sampled:** 10/05/23 13:00
Name: OR19 **Received:** 10/25/23 16:56
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	2.15	pCi/L			1	0.906	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04588-06 **Sampled:** 10/25/23 15:53
Name: EB-5 **Received:** 10/25/23 16:56
Matrix: DI Water - Equipment Blank **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0747 U	pCi/L			1	0.485	11/13/23 17:36	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04862-01 **Sampled:** 10/26/23 11:55
Name: G51S **Received:** 10/27/23 07:15
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	1.3	pCi/L			1	0.496	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04862-02 **Sampled:** 10/26/23 15:31
Name: G62L **Received:** 10/27/23 07:15
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	0.0485 U	pCi/L			1	0.593	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04862-03 **Sampled:** 10/26/23 13:53
Name: G64L **Received:** 10/27/23 07:15
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	0.812	pCi/L			1	0.597	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04862-04 **Sampled:** 10/26/23 13:38
Name: G64S **Received:** 10/27/23 07:15
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	0.492 J	pCi/L			1	0.568	11/13/23 17:36	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04862-05 **Sampled:** 10/26/23 12:04
Name: OM07 **Received:** 10/27/23 07:15
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	0.681	pCi/L			1	0.68	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04862-06 **Sampled:** 10/26/23 10:45
Name: OM12 **Received:** 10/27/23 07:15
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	1.24	pCi/L			1	0.609	11/15/23 17:04	PACE	904.0 903.0

Sample: GJ04862-07 **Sampled:** 10/26/23 14:40
Name: OR06A **Received:** 10/27/23 07:15
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	1.17	pCi/L			1	0.525	11/15/23 17:04	PACE	904.0 903.0

Sample: GJ04862-08 **Sampled:** 10/26/23 13:23
Name: OR13D **Received:** 10/27/23 07:15
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	0.440 J	pCi/L			1	0.63	11/15/23 17:04	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04862-09 **Sampled:** 10/26/23 14:58
Name: EB-6 **Received:** 10/27/23 07:15
Matrix: DI Water - Equipment Blank **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.58	pCi/L			1	0.577	11/15/23 17:04	PACE	904.0 903.0

Sample: GJ04862-10 **Sampled:** 10/26/23 15:25
Name: EB-7 **Received:** 10/27/23 07:15
Matrix: DI Water - Equipment Blank **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.179 U	pCi/L			1	0.631	11/15/23 17:04	PACE	904.0 903.0

Sample: GJ04998-01 **Sampled:** 10/27/23 13:38
Name: G54L **Received:** 10/27/23 16:49
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	0.178 J	pCi/L			1	0.393	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04998-02 **Sampled:** 10/27/23 11:54
Name: G54S **Received:** 10/27/23 16:49
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	2.14	pCi/L			1	0.383	11/13/23 17:36	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04998-03 **Sampled:** 10/27/23 13:30
Name: OR02 **Received:** 10/27/23 16:49
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	4.54	pCi/L			1	0.882	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04998-04 **Sampled:** 10/27/23 13:40
Name: OMO1 **Received:** 10/27/23 16:49
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	2.13	pCi/L			1	1.04	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04998-05 **Sampled:** 10/27/23 13:40
Name: OM01 DUP **Received:** 10/27/23 16:49
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	1.19	pCi/L			1	0.549	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ04998-06 **Sampled:** 10/27/23 15:43
Name: EB-8 **Received:** 10/27/23 16:49
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	0.212 J	pCi/L			1	0.448	11/13/23 17:36	PACE	904.0 903.0

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ANALYTICAL RESULTS

Sample: GJ04998-07 **Sampled:** 10/27/23 15:40
Name: EB-9 **Received:** 10/27/23 16:49
Matrix: DI Water - Equipment Blank **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.155 U	pCi/L			1	0.505	11/13/23 17:36	PACE	904.0 903.0

Sample: GJ05392-01 **Sampled:** 10/31/23 10:27
Name: G60S **Received:** 10/31/23 15:25
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	1.55	pCi/L			1	1.15	11/21/23 14:19	PACE	904.0 903.0

Sample: GJ05392-02 **Sampled:** 10/31/23 11:40
Name: R61L **Received:** 10/31/23 15:25
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	0.636	pCi/L			1	0.511	11/21/23 14:19	PACE	904.0 903.0

Sample: GJ05392-03 **Sampled:** 10/31/23 14:27
Name: EB-11 **Received:** 10/31/23 15:25
Matrix: DI Water - Equipment Blank **PO #:** 1728919

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.739	pCi/L			1	0.61	11/21/23 14:19	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

December 11, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1670204
Samples Received:	10/25/2023
Project Number:	GJ03211
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

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

GJ03211-01 L1670204-01 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		10/17/23 11:14	10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03211-02 L1670204-02 Non-Potable Water

	Collected by	Collected date/time	Received date/time
		10/17/23 16:45	10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	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.



Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/23 09:25

Project Narrative

GJ03211-01 SAMPLE RESULTS - 01
Collected date/time: 10/17/23 11:14 L1670204

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	0.992	J	0.625		1.11		11/08/2023 19:09	WG2161389
(T) Barium	*115*					*30.0-143*	*11/08/2023 19:09*	WG2161389
(T) Yttrium	*118*					*30.0-136*	*11/08/2023 19:09*	WG2161389

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.55		0.711	1.16	11/08/2023 19:09	WG2161518

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	0.559		0.338		0.338		11/03/2023 17:30	WG2161518
(T) Barium-133	*95.8*					*30.0-143*	*11/03/2023 17:30*	WG2161518

SAMPLE RESULTS - 02

GJ03211-02
Collected date/time: 10/17/23 16:45
L1670204

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		0.212		0.376		11/08/2023 19:09	WG2161389
(T) Barium	*138*					*30.0-143*	*11/08/2023 19:09*	WG2161389
(T) Yttrium	*121*					*30.0-136*	*11/08/2023 19:09*	WG2161389

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.510	J	0.319	0.550	11/08/2023 19:09	WG2161518

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	0.0766	U	0.239		0.402		11/03/2023 17:30	WG2161518
(T) Barium-133	*90.8*					*30.0-143*	*11/03/2023 17:30*	WG2161518

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

QUALITY CONTROL SUMMARY

Radiochemistry by Method 9315/9320

L1670204-01,02

Method Blank (MB)

(MB) R3997990-1 11/08/23 13:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0155	U	0.169	0.316	
(T) Barium	*99.1*		*99.1*		
(T) Yttrium	*111*		*111*		

L1665082-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1665082-05 11/08/23 13:58 • (DUP) R3997990-5 11/08/23 13:58

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	1.21	0.341	0.600		0.340	0.327	0.601		112	1.83	J	20	3
(T) Barium	*105*				*101*	*101*							
(T) Yttrium	*118*				*121*	*121*							

Laboratory Control Sample (LCS)

(LCS) R3997990-2 11/08/23 13:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.56	111	80.0-120	
(T) Barium			*101*		
(T) Yttrium			*109*		

L1670206-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670206-01 11/08/23 19:09 • (MS) R3997990-3 11/08/23 13:58 • (MSD) R3997990-4 11/08/23 13:58

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	-0.120	16.1	16.9	96.6	101	1	70.0-130			4.30		20
(T) Barium		*86.2*			*99.6*	*105*							
(T) Yttrium		*123*			*126*	*121*							

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

QUALITY CONTROL SUMMARY

L1670204-01,02

Method Blank (MB)

(MB) R4002321-5 11/03/23 17:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0128	J	0.0187	0.0299	
(T) Barium-133	*66.9*		*66.9*		

L1670206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670206-02 11/03/23 17:30 • (DUP) R4002321-4 11/03/23 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-226	0.159	0.204	0.291		0.0183	0.113	0.264		159	0.604	U	20	3
(T) Barium-133	*92.4*				*81.5*	*81.5*							

Laboratory Control Sample (LCS)

(LCS) R4002321-1 11/03/23 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.89	118	80.0-120	
(T) Barium-133			*73.0*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/03/23 17:23 • (MS) R4002321-2 11/03/23 17:23 • (MSD) R4002321-3 11/03/23 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-226	20.0	0.0717	22.0	23.2	110	116	1	75.0-125			5.26		20
(T) Barium-133		*72.7*			*69.8*	*67.7*							

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

F033

Pace Analytical Services, LLC

GJ03211

L1670204

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: GJ03211-01
Name: OR13S

Sampled: 10/17/23 11:14
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/23 16:00	04/14/24 11:14	

Sample: GJ03211-02
Name: EB-1

Sampled: ~~10/17/23 11:14~~ 10/17/23 1643
Matrix: Ground Water
Preservative: HNO3, pH <2

-02 10/17/23 dab

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/30/23 16:00	04/14/24 11:14	

CLAB 116310

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		

2 RECEIVED

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

Date Shipped: 10/24/23 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]	10/24/23 1622		
		Christopher Sullivan	10/25/23 0825

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 21, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1670206
Samples Received:	10/25/2023
Project Number:	GJ03501
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By: Haley Torrence

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.

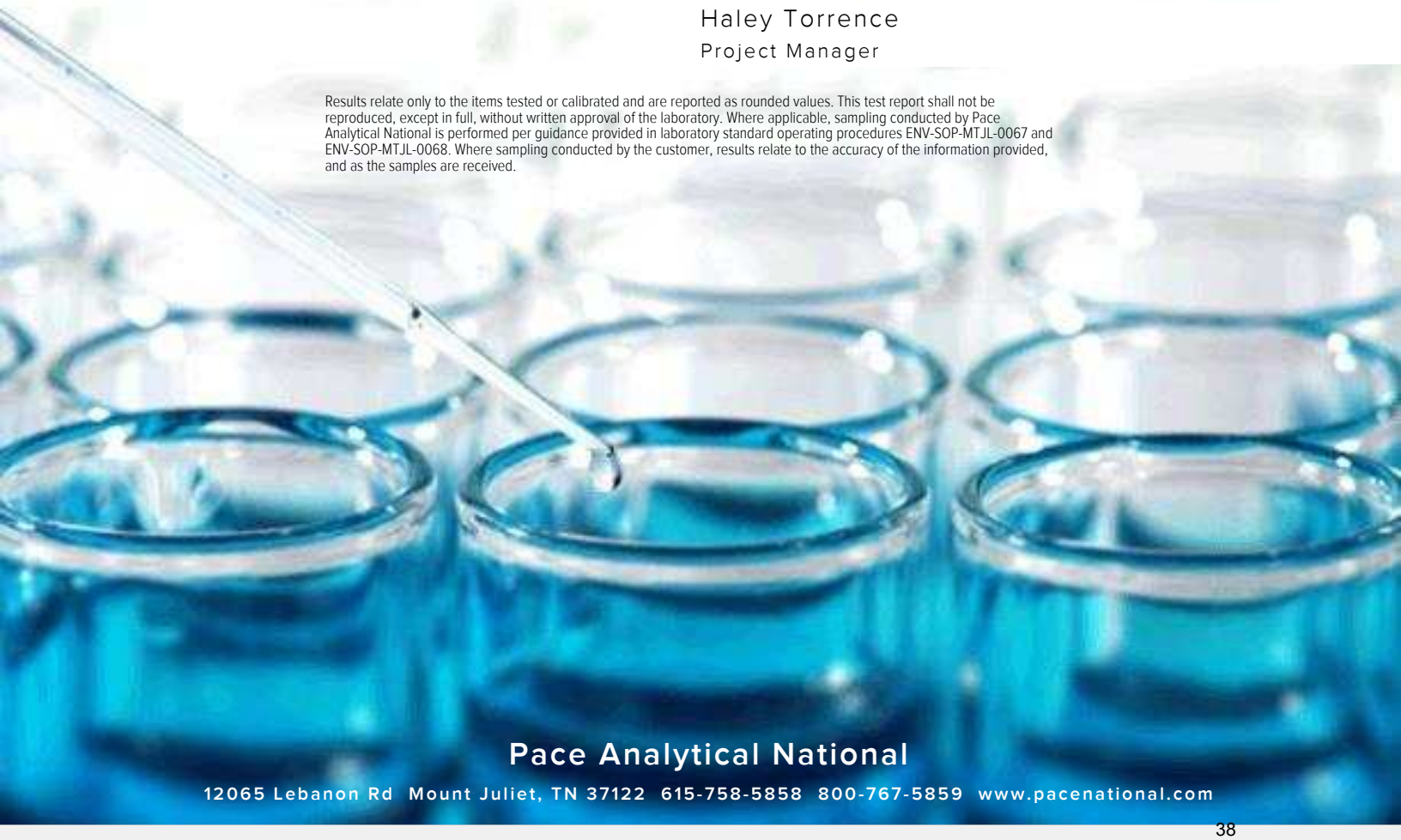


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SAMPLE SUMMARY

GJ03501-01 L1670206-01 Non-Potable Water

Collected by | Collected date/time 10/18/23 13:25 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-02 L1670206-02 Non-Potable Water

Collected by | Collected date/time 10/18/23 14:34 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2161389	1	10/31/23 15:17	11/08/23 19:09	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/08/23 19:09	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-03 L1670206-03 Non-Potable Water

Collected by | Collected date/time 10/18/23 09:45 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-04 L1670206-04 Non-Potable Water

Collected by | Collected date/time 10/18/23 09:50 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-05 L1670206-05 Non-Potable Water

Collected by | Collected date/time 10/18/23 15:40 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	Mt. Juliet, TN

GJ03501-06 L1670206-06 Non-Potable Water

Collected by | Collected date/time 10/18/23 13:25 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:30	RGT	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.



Haley Torrence
Project Manager

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	-0.120	U	0.185		0.634		11/08/2023 19:09	WG2161389
(T) Barium	*86.2*					*30.0-143*	*11/08/2023 19:09*	WG2161389
(T) Yttrium	*123*					*30.0-136*	*11/08/2023 19:09*	WG2161389

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.192	U	0.350	0.773	11/08/2023 19:09	WG2161518

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	0.297		0.443		11/03/2023 17:30	WG2161518
(T) Barium-133	*79.6*					*30.0-143*	*11/03/2023 17:30*	WG2161518

GJ03501-02 SAMPLE RESULTS - 02
Collected date/time: 10/18/23 14:34 L1670206

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	0.0866	U	0.123		0.411		11/08/2023 19:09	WG2161389
(T) Barium	*92.1*					*30.0-143*	*11/08/2023 19:09*	WG2161389
(T) Yttrium	*114*					*30.0-136*	*11/08/2023 19:09*	WG2161389

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.246	U	0.238	0.504	11/08/2023 19:09	WG2161518

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	0.159	J	0.204		0.291		11/03/2023 17:30	WG2161518
(T) Barium-133	*92.4*					*30.0-143*	*11/03/2023 17:30*	WG2161518

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	0.506		0.199		0.365		11/07/2023 13:38	WG2162456
(T) Barium	*105*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*108*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.697		0.320	0.511	11/07/2023 13:38	WG2161518

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	0.250		0.357		11/03/2023 17:30	WG2161518
(T) Barium-133	*85.2*					*30.0-143*	*11/03/2023 17:30*	WG2161518

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	-0.298	U	0.215		0.424		11/07/2023 13:38	WG2162456
(T) Barium	*108*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*107*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.102	U	0.300	0.542	11/07/2023 13:38	WG2161518

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	U	0.209		0.337		11/03/2023 17:30	WG2161518
(T) Barium-133	*97.2*					*30.0-143*	*11/03/2023 17:30*	WG2161518

GJ03501-05
Collected date/time: 10/18/23 15:40

SAMPLE RESULTS - 05

L1670206

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		0.218		0.397		11/07/2023 13:38	WG2162456
(T) Barium	*111*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*121*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.00		0.394	0.564	11/07/2023 13:38	WG2161518

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	0.389	J	0.328		0.400		11/03/2023 17:30	WG2161518
(T) Barium-133	*87.4*					*30.0-143*	*11/03/2023 17:30*	WG2161518

GJ03501-06 SAMPLE RESULTS - 06
Collected date/time: 10/18/23 13:25 L1670206

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	0.307	J	0.205		0.384		11/07/2023 13:38	WG2162456
(T) Barium	*119*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*92.6*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.644		0.326	0.462	11/07/2023 13:38	WG2161518

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	0.338		0.253		0.256		11/03/2023 17:30	WG2161518
(T) Barium-133	*94.2*					*30.0-143*	*11/03/2023 17:30*	WG2161518

Method Blank (MB)

(MB) R3997990-1 11/08/23 13:58

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0155	U	0.169	0.316	
(T) Barium	*99.1*		*99.1*		
(T) Yttrium	*111*		*111*		

L1665082-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1665082-05 11/08/23 13:58 • (DUP) R3997990-5 11/08/23 13:58

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	1.21	0.341	0.600		0.340	0.327	0.601		112	1.83	J	20	3
(T) Barium	*105*				*101*	*101*							
(T) Yttrium	*118*				*121*	*121*							

Laboratory Control Sample (LCS)

(LCS) R3997990-2 11/08/23 13:58

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.56	111	80.0-120	
(T) Barium			*101*		
(T) Yttrium			*109*		

L1670206-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670206-01 11/08/23 19:09 • (MS) R3997990-3 11/08/23 13:58 • (MSD) R3997990-4 11/08/23 13:58

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	-0.120	16.1	16.9	96.6	101	1	70.0-130			4.30		20
(T) Barium		*86.2*			*99.6*	*105*							
(T) Yttrium		*123*			*126*	*121*							

QUALITY CONTROL SUMMARY

L1670206-03,04,05,06

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	*105*		*105*		
(T) Yttrium	*108*		*108*		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

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	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	*114*				*115*	*115*							
(T) Yttrium	*98.3*				*129*	*129*							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			*121*		
(T) Yttrium			*101*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

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	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		*103*			*125*	*124*							
(T) Yttrium		*104*			*105*	*117*							

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

QUALITY CONTROL SUMMARY

L1670206-01,02,03,04,05,06

Method Blank (MB)

(MB) R4002321-5 11/03/23 17:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0128	J	0.0187	0.0299	
(T) Barium-133	*66.9*		*66.9*		

L1670206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670206-02 11/03/23 17:30 • (DUP) R4002321-4 11/03/23 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-226	0.159	0.204	0.291		0.0183	0.113	0.264		159	0.604	U	20	3
(T) Barium-133	*92.4*				*81.5*	*81.5*							

Laboratory Control Sample (LCS)

(LCS) R4002321-1 11/03/23 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.89	118	80.0-120	
(T) Barium-133			*73.0*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/03/23 17:23 • (MS) R4002321-2 11/03/23 17:23 • (MSD) R4002321-3 11/03/23 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-226	20.0	0.0717	22.0	23.2	110	116	1	75.0-125			5.26		20
(T) Barium-133		*72.7*			*69.8*	*67.7*							

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

F034

Pace Analytical Services, LLC

GJ03501

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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

L1670206

Sample: GJ03501-01 -01
Name: BA01
Sampled: 10/18/23 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 13:25	

Sample: GJ03501-02 -02
Name: BA02
Sampled: 10/18/23 14:34
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 14:34	

Sample: GJ03501-03 -03
Name: BA03
Sampled: 10/18/23 09:45
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 09:45	

Sample: GJ03501-04 -04
Name: BA03L
Sampled: 10/18/23 09:50
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 09:50	

Sample: GJ03501-05 -05
Name: BA04
Sampled: 10/18/23 15:40
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 15:40	

ATTACHEMENT B.
845-QUARTERLY REPORT - QUARTER4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC845-20

SUBCONTRACT ORDER
Transfer Chain of Custody
Pace Analytical Services, LLC
GJ03501

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

L1670206

Sample: GJ03501-06
Name: BA01 DUP

Sampled: 10/18/23 13:25
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	10/31/23 16:00	04/15/24 13:25	

LCA8 16.3+0

Sample Receipt Checklist

Cl. 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	6 RECIEVED	
RA Screen <0.5 mR/hr:	Y N		

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

Date Shipped: ~~10/24~~ 10/24/23 ~~10/24~~ 10/24/23 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
	10/24/23 1608		
		Christopher L Hollins	10/25/23 0000

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

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

ANALYTICAL REPORT

November 21, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1670207
Samples Received:	10/25/2023
Project Number:	GJ03741
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

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.

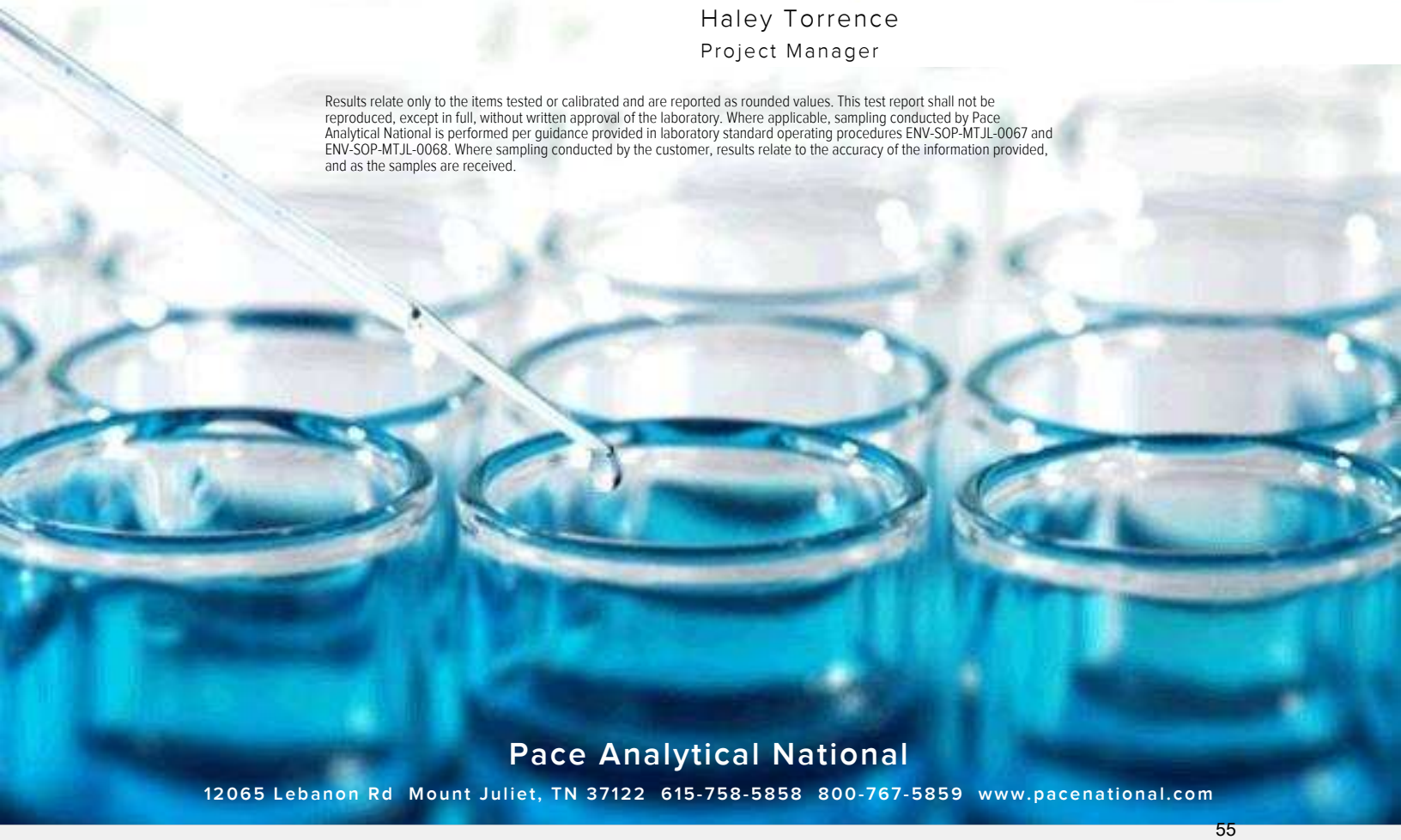


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SAMPLE SUMMARY

GJ03741-01 L1670207-01 Non-Potable Water

Collected by | Collected date/time 10/19/23 11:40 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:34	RGT	Mt. Juliet, TN

GJ03741-02 L1670207-02 Non-Potable Water

Collected by | Collected date/time 10/19/23 13:09 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:34	RGT	Mt. Juliet, TN

GJ03741-03 L1670207-03 Non-Potable Water

Collected by | Collected date/time 10/19/23 14:30 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 13:38	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2161518	1	10/31/23 17:41	11/07/23 13:38	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2161518	1	10/31/23 17:41	11/03/23 17:34	RGT	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.



Haley Torrence
Project Manager

GJ03741-01 SAMPLE RESULTS - 01
Collected date/time: 10/19/23 11:40 L1670207

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	0.443		0.195		0.359		11/07/2023 13:38	WG2162456
(T) Barium	*113*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*110*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.501		0.234	0.430	11/07/2023 13:38	WG2161518

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	0.0573	U	0.129		0.237		11/03/2023 17:34	WG2161518
(T) Barium-133	*82.6*					*30.0-143*	*11/03/2023 17:34*	WG2161518

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

GJ03741-02 SAMPLE RESULTS - 02
Collected date/time: 10/19/23 13:09 L1670207

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	0.0758	U	0.207		0.396		11/07/2023 13:38	WG2162456
(T) Barium	*106*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*120*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.409	J	0.297	0.426	11/07/2023 13:38	WG2161518

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		0.213		0.157		11/03/2023 17:34	WG2161518
(T) Barium-133	*91.9*					*30.0-143*	*11/03/2023 17:34*	WG2161518

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

GJ03741-03 SAMPLE RESULTS - 03
Collected date/time: 10/19/23 14:30 L1670207

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	0.598		0.196		0.356		11/07/2023 13:38	WG2162456
(T) Barium	*106*					*30.0-143*	*11/07/2023 13:38*	WG2162456
(T) Yttrium	*102*					*30.0-136*	*11/07/2023 13:38*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.753		0.255	0.402	11/07/2023 13:38	WG2161518

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	0.163		0.187		11/03/2023 17:34	WG2161518
(T) Barium-133	*85.1*					*30.0-143*	*11/03/2023 17:34*	WG2161518

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	*105*		*105*		
(T) Yttrium	*108*		*108*		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

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	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	*114*				*115*	*115*							
(T) Yttrium	*98.3*				*129*	*129*							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			*121*		
(T) Yttrium			*101*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

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	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		*103*			*125*	*124*							
(T) Yttrium		*104*			*105*	*117*							

Method Blank (MB)

(MB) R4002321-5 11/03/23 17:34

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0128	J	0.0187	0.0299	
(T) Barium-133	*66.9*		*66.9*		

L1670206-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670206-02 11/03/23 17:30 • (DUP) R4002321-4 11/03/23 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-226	0.159	0.204	0.291		0.0183	0.113	0.264		159	0.604	U	20	3
(T) Barium-133	*92.4*				*81.5*	*81.5*							

Laboratory Control Sample (LCS)

(LCS) R4002321-1 11/03/23 17:23

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.89	118	80.0-120	
(T) Barium-133			*73.0*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/03/23 17:23 • (MS) R4002321-2 11/03/23 17:23 • (MSD) R4002321-3 11/03/23 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-226	20.0	0.0717	22.0	23.2	110	116	1	75.0-125			5.26		20
(T) Barium-133		*72.7*			*69.8*	*67.7*							

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.

CCAB 16.3+0

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	3 RECEIVED	
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	Y N		

SUBCONTRACT ORDER
Chain of Custody
Pace Analytical Services, LLC

F035

GJ03741

66

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

L1670207

Sample: GJ03741-01
Name: BA05

Sampled: 10/19/23 11:49
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/01/23 16:00	04/16/24 11:49	

Sample: GJ03741-02
Name: BA06

Sampled: 10/19/23 13:09
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/01/23 16:00	04/16/24 13:09	

Sample: GJ03741-03
Name: G02S

Sampled: 10/19/23 14:30
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/01/23 16:00	04/16/24 14:30	

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

Date Shipped: 10/24/23 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
	10/24/23 1628		
		Christopher M. Gallin	10/25/23

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

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

ANALYTICAL REPORT

November 21, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1670210
Samples Received:	10/25/2023
Project Number:	GJ04132
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

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.

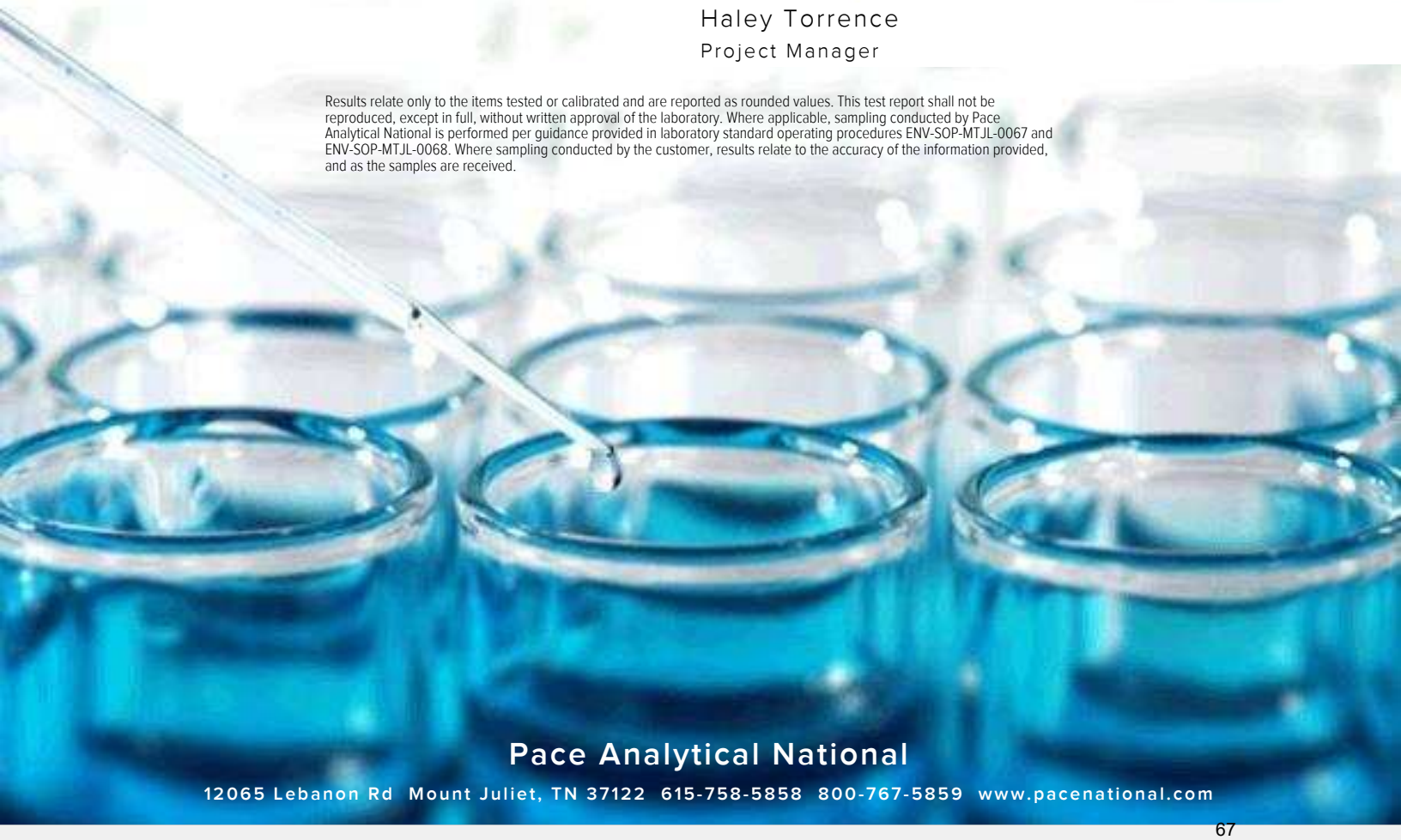


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SAMPLE SUMMARY

GJ04132-01 L1670210-01 Non-Potable Water

Collected by | Collected date/time 10/23/23 16:09 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162602	1	11/02/23 10:28	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162602	1	11/02/23 10:28	11/04/23 14:43	RGT	Mt. Juliet, TN

GJ04132-02 L1670210-02 Non-Potable Water

Collected by | Collected date/time 10/23/23 11:48 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162602	1	11/02/23 10:28	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162602	1	11/02/23 10:28	11/04/23 14:43	RGT	Mt. Juliet, TN

GJ04132-03 L1670210-03 Non-Potable Water

Collected by | Collected date/time 10/23/23 13:35 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162604	1	11/02/23 16:28	11/07/23 19:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162604	1	11/02/23 16:28	11/06/23 16:56	RGT	Mt. Juliet, TN

GJ04132-04 L1670210-04 Non-Potable Water

Collected by | Collected date/time 10/23/23 14:11 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162604	1	11/02/23 16:28	11/07/23 19:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162604	1	11/02/23 16:28	11/06/23 16:56	RGT	Mt. Juliet, TN

GJ04132-05 L1670210-05 Non-Potable Water

Collected by | Collected date/time 10/23/23 12:54 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:56	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:56	RGT	Mt. Juliet, TN

GJ04132-06 L1670210-06 Non-Potable Water

Collected by | Collected date/time 10/23/23 10:49 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

GJ04132-07 L1670210-07 Non-Potable Water

			Collected by	Collected date/time	Received date/time
				10/23/23 11:30	10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04132-08 L1670210-08 Non-Potable Water

			Collected by	Collected date/time	Received date/time
				10/23/23 15:30	10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04132-09 L1670210-09 Non-Potable Water

			Collected by	Collected date/time	Received date/time
				10/23/23 15:45	10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	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.



Haley Torrence
Project Manager

GJ04132-01 SAMPLE RESULTS - 01
Collected date/time: 10/23/23 16:09 L1670210

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	0.579		0.264		0.459		11/07/2023 19:19	WG2162456
(T) Barium	*102*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*104*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.776		0.306	0.480	11/07/2023 19:19	WG2162602

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	0.198		0.154		0.142		11/04/2023 14:43	WG2162602
(T) Barium-133	*93.5*					*30.0-143*	*11/04/2023 14:43*	WG2162602

GJ04132-02 SAMPLE RESULTS - 02

Collected date/time: 10/23/23 11:48 L1670210

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	0.835		0.240		0.407		11/07/2023 19:19	WG2162456
(T) Barium	*101*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*129*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.919		0.264	0.433	11/07/2023 19:19	WG2162602

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	0.0846	J	0.109		0.149		11/04/2023 14:43	WG2162602
(T) Barium-133	*90.3*					*30.0-143*	*11/04/2023 14:43*	WG2162602

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	0.819		0.250		0.427		11/07/2023 19:19	WG2162456
(T) Barium	*126*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*125*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.04		0.338	0.517	11/07/2023 19:19	WG2162604

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	0.224	J	0.228		0.291		11/06/2023 16:56	WG2162604
(T) Barium-133	*81.2*					*30.0-143*	*11/06/2023 16:56*	WG2162604

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	1.99		0.371		0.607		11/07/2023 19:19	WG2162456
(T) Barium	*82.0*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*78.2*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.45		0.516	0.707	11/07/2023 19:19	WG2162604

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	0.463		0.359		0.362		11/06/2023 16:56	WG2162604
(T) Barium-133	*51.5*					*30.0-143*	*11/06/2023 16:56*	WG2162604

SAMPLE RESULTS - 05

GJ04132-05
Collected date/time: 10/23/23 12:54
L1670210

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		0.227		0.372		11/07/2023 19:19	WG2162456
(T) Barium	*98.9*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*131*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.26		0.284	0.447	11/08/2023 22:56	WG2164135

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	0.130	J	0.171		0.248		11/08/2023 22:56	WG2164135
(T) Barium-133	*75.1*					*30.0-143*	*11/08/2023 22:56*	WG2164135

SAMPLE RESULTS - 06

GJ04132-06
Collected date/time: 10/23/23 10:45
L1670210

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	1.44		0.235		0.376		11/07/2023 19:19	WG2162456
(T) Barium	*95.9*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*107*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.74		0.330	0.439	11/08/2023 22:53	WG2164135

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		0.231		0.227		11/08/2023 22:53	WG2164135
(T) Barium-133	*67.3*					*30.0-143*	*11/08/2023 22:53*	WG2164135

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

GJ04132-07 SAMPLE RESULTS - 07
Collected date/time: 10/23/23 11:30 L1670210

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	4.52		0.719		1.17		11/07/2023 19:19	WG2162456
(T) Barium	*95.1*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*116*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	7.02		0.936	1.18	11/08/2023 22:53	WG2164135

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		0.600		0.181		11/08/2023 22:53	WG2164135
(T) Barium-133	*66.7*					*30.0-143*	*11/08/2023 22:53*	WG2164135

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	4.49		0.650		1.02		11/07/2023 19:19	WG2162456
(T) Barium	*95.6*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*85.5*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	6.16		0.807	1.03	11/08/2023 22:53	WG2164135

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	1.68		0.478		0.170		11/08/2023 22:53	WG2164135
(T) Barium-133	*77.9*					*30.0-143*	*11/08/2023 22:53*	WG2164135

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	0.914		0.249		0.423		11/07/2023 19:19	WG2162456
(T) Barium	*109*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*102*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.914		0.251	0.452	11/08/2023 22:53	WG2164135

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	-0.00828	U	0.0325		0.160		11/08/2023 22:53	WG2164135
(T) Barium-133	*81.8*					*30.0-143*	*11/08/2023 22:53*	WG2164135

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	*105*		*105*		
(T) Yttrium	*108*		*108*		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

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	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	*114*				*115*	*115*							
(T) Yttrium	*98.3*				*129*	*129*							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			*121*		
(T) Yttrium			*101*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

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	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		*103*			*125*	*124*							
(T) Yttrium		*104*			*105*	*117*							

QUALITY CONTROL SUMMARY

Radiochemistry 845 Method RTM-0010 Rad 845

L1670210-01,02

Method Blank (MB)

(MB) R3997977-1 11/04/23 14:43

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00492	U	0.0167	0.0346	
(T) Barium-133	*76.0*		*76.0*		

L1670210-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1670210-02 11/04/23 14:43 • (DUP) R3997977-5 11/04/23 14:43

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	0.0846	0.109	0.149		0.207	0.131	0.115		84.1	0.720		20	3
(T) Barium-133	*90.3*				*79.8*	*79.8*							

Laboratory Control Sample (LCS)

(LCS) R3997977-2 11/04/23 14:43

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.53	111	80.0-120	
(T) Barium-133			*76.2*		

L1664280-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-03 11/04/23 14:43 • (MS) R3997977-6 11/09/23 17:07 • (MSD) R3997977-4 11/04/23 14:43

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	-0.00810	22.4	23.7	112	119	1	75.0-125			5.72		20
(T) Barium-133		*82.3*			*71.2*	*71.8*							

QUALITY CONTROL SUMMARY

Radiochemistry Method: EPA 903.1 Modified

L1670210-03,04

Method Blank (MB)

(MB) R3999285-1 11/06/23 16:56

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0179	U	0.0277	0.0846	
(T) Barium-133	*77.2*		*77.2*		

L1671796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671796-01 11/06/23 16:56 • (DUP) R3999285-5 11/06/23 16:56

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	-0.0628	0.162	0.385		-0.0512	0.0915	0.296		0.000	0.0625	U	20	3
(T) Barium-133	*84.5*				*85.6*	*85.6*							

Laboratory Control Sample (LCS)

(LCS) R3999285-2 11/06/23 16:56

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.51	110	80.0-120	
(T) Barium-133			*79.2*		

L1664280-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-06 11/06/23 16:56 • (MS) R3999285-3 11/06/23 16:56 • (MSD) R3999285-4 11/06/23 16:56

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	0.235	21.2	25.1	105	124	1	75.0-125			16.8		20
(T) Barium-133		*72.7*			*82.2*	*62.4*							

QUALITY CONTROL SUMMARY

Radiochemistry 845 Method TM01 Water

L1670210-05,06,07,08,09

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	*51.7*		*51.7*		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

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	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	*85.8*				*70.8*	*70.8*							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			*67.9*		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

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	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		*81.8*			*82.8*	*76.6*							

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	LAO00356
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

F032

Pace Analytical Services, LLC

GJ04132

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

L1670210

Sample: GJ04132-01 -01
Name: G50S
Sampled: 10/23/23 16:09
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 16:09	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 16:09	

Sample: GJ04132-02 -02
Name: G60L
Sampled: 10/23/23 11:48
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:48	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:48	

Sample: GJ04132-03 -03
Name: G61S
Sampled: 10/23/23 13:35
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 13:35	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 13:35	

Sample: GJ04132-04 -04
Name: OM22D
Sampled: 10/23/23 14:11
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 14:11	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 14:11	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04132

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

L1670210

Sample: GJ04132-05 -05
Name: OM23D
Sampled: 10/23/23 12:54
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 12:54	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 12:54	

Sample: GJ04132-06 -06
Name: OM24D
Sampled: 10/23/23 10:49
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 10:49	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 10:49	

Sample: GJ04132-07 -07
Name: OM25S
Sampled: 10/23/23 11:30
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:30	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 11:30	

Sample: GJ04132-08 -08
Name: OR03D
Sampled: 10/23/23 15:30
Matrix: Ground Water
Preservative: HNO3, pH <2

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:30	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:30	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04132

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

LL670210

Sample: GJ04132-09
Name: Equipment Blank EB-3 10/23/23 dnb

Sampled: 10/23/23 15:45
Matrix: DI Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:45	
01-Radium 226/228 combined	11/03/23 16:00	04/20/24 15:45	

CCAS 19.7+0

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
9 RECEIVED

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

Date Shipped: 10/24/23 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]	10/24/23 1020		
		Christopher Gallin	10/25/23

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 14, 2023

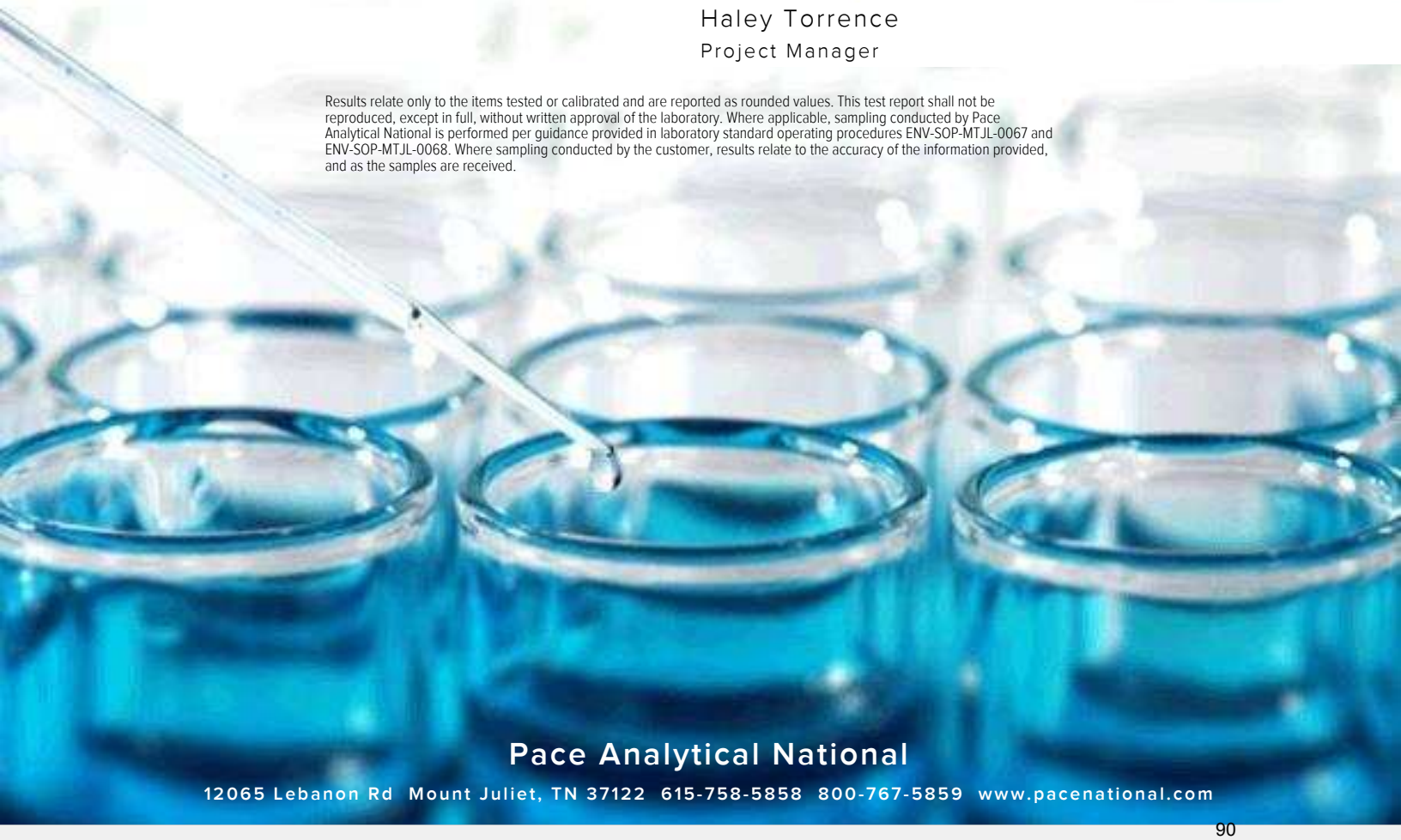
Pace IR - Peoria, IL

Sample Delivery Group:	L1670209
Samples Received:	10/25/2023
Project Number:	GJ04134
Description:	
Site:	001
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By: Haley Torrence

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

GJ04134-01 L1670209-01 Non-Potable Water

Collected by | Collected date/time 10/20/23 12:47 | Received date/time 10/25/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2162456	1	11/01/23 17:33	11/07/23 19:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2162604	1	11/02/23 16:28	11/07/23 19:19	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2162604	1	11/02/23 16:28	11/06/23 16:57	RGT	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.



Haley Torrence
Project Manager

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	1.60		0.287		0.469		11/07/2023 19:19	WG2162456
(T) Barium	*92.8*					*30.0-143*	*11/07/2023 19:19*	WG2162456
(T) Yttrium	*95.1*					*30.0-136*	*11/07/2023 19:19*	WG2162456

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.88		0.395	0.584	11/07/2023 19:19	WG2162604

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	J	0.272		0.348		11/06/2023 16:57	WG2162604
(T) Barium-133	*85.8*					*30.0-143*	*11/06/2023 16:57*	WG2162604

Method Blank (MB)

(MB) R3997981-1 11/07/23 13:38

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.382		0.158	0.290	
(T) Barium	*105*		*105*		
(T) Yttrium	*108*		*108*		

L1665889-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1665889-08 11/07/23 13:38 • (DUP) R3997981-5 11/07/23 13:38

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	3.18	0.306	0.454		3.82	0.366	0.575		18.2	1.34		20	3
(T) Barium	*114*				*115*	*115*							
(T) Yttrium	*98.3*				*129*	*129*							

Laboratory Control Sample (LCS)

(LCS) R3997981-2 11/07/23 13:38

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.22	84.3	80.0-120	
(T) Barium			*121*		
(T) Yttrium			*101*		

L1665584-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1665584-01 11/07/23 13:38 • (MS) R3997981-3 11/07/23 13:38 • (MSD) R3997981-4 11/07/23 13:38

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	0.203	8.85	8.31	86.5	81.1	1	70.0-130			6.30		20
(T) Barium		*103*			*125*	*124*							
(T) Yttrium		*104*			*105*	*117*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method RTM 7.0 Rad GFPC

L1670209-01

Method Blank (MB)

(MB) R3999285-1 11/06/23 16:56

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0179	U	0.0277	0.0846	
(T) Barium-133	*77.2*		*77.2*		

L1671796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1671796-01 11/06/23 16:56 • (DUP) R3999285-5 11/06/23 16:56

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	-0.0628	0.162	0.385		-0.0512	0.0915	0.296		0.000	0.0625	U	20	3
(T) Barium-133	*84.5*				*85.6*	*85.6*							

Laboratory Control Sample (LCS)

(LCS) R3999285-2 11/06/23 16:56

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.51	110	80.0-120	
(T) Barium-133			*79.2*		

L1664280-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-06 11/06/23 16:56 • (MS) R3999285-3 11/06/23 16:56 • (MSD) R3999285-4 11/06/23 16:56

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	0.235	21.2	25.1	105	124	1	75.0-125			16.8		20
(T) Barium-133		*72.7*			*82.2*	*62.4*							

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
GJ04134

F036

99

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

L1670209

Sample: GJ04134-01
Name: G57S

Sampled: 10/20/23 12:47
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/02/23 16:00	04/17/24 12:47	

CLAS 18.0+D

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			

RECEIVED

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

Date Shipped: 10/24/23 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]	10/24/23 1622		
		Christopher T. Gallian	10/25/23 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

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

ANALYTICAL REPORT

November 21, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1672534
Samples Received:	10/31/2023
Project Number:	GH04374
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By: Haley Torrence

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.

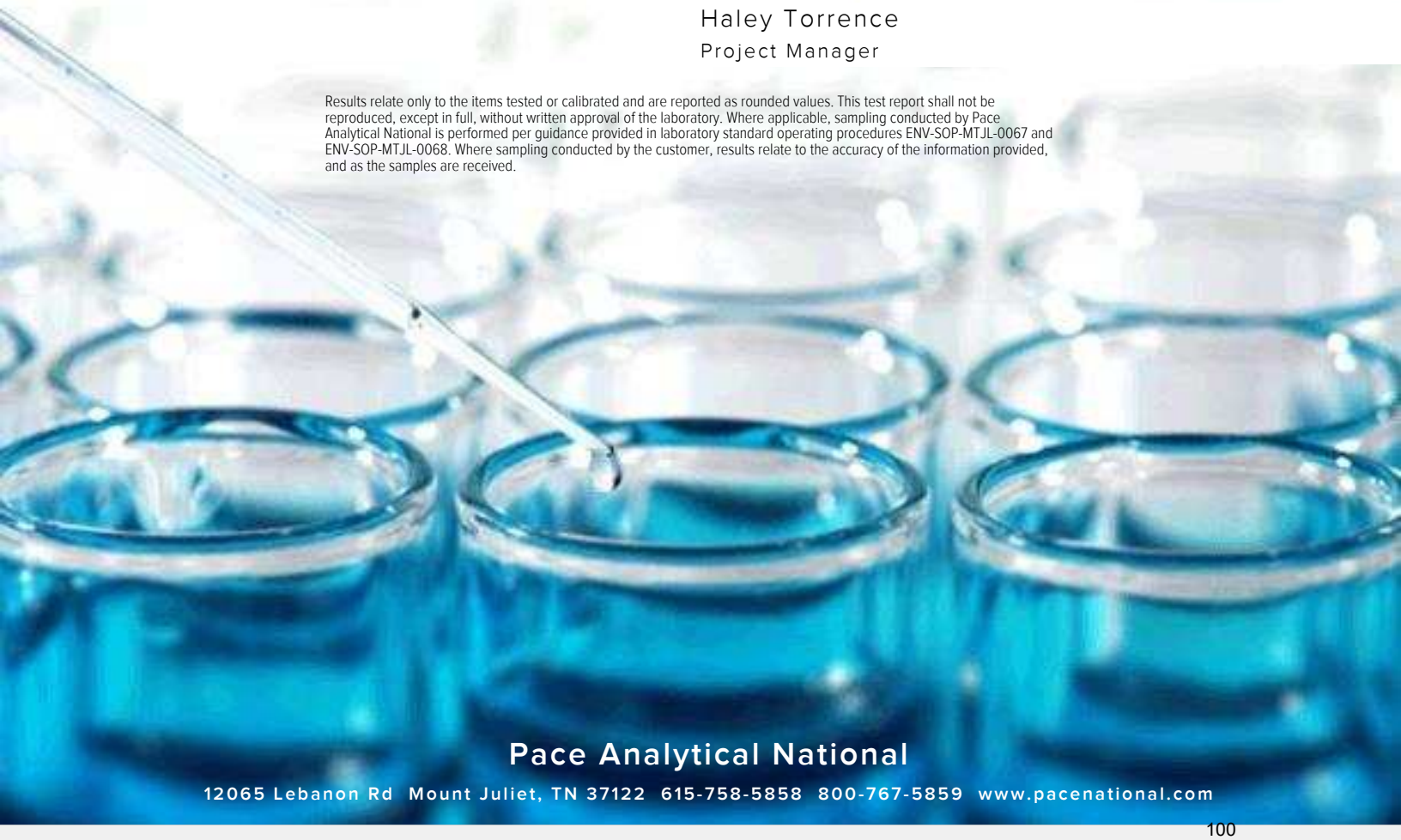


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Al: Accreditations & Locations 14
Sc: Sample Chain of Custody 15

SAMPLE SUMMARY

GJ04374-01 L1672534-01 Non-Potable Water

Collected by | Collected date/time 10/24/23 12:48 | Received date/time 10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-02 L1672534-02 Non-Potable Water

Collected by | Collected date/time 10/24/23 11:29 | Received date/time 10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-03 L1672534-03 Non-Potable Water

Collected by | Collected date/time 10/24/23 15:03 | Received date/time 10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-04 L1672534-04 Non-Potable Water

Collected by | Collected date/time 10/24/23 15:30 | Received date/time 10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2165571	1	11/06/23 18:28	11/11/23 11:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/11/23 11:15	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04374-05 L1672534-05 Non-Potable Water

Collected by | Collected date/time 10/24/23 11:29 | Received date/time 10/31/23 00:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	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.



Haley Torrence
Project Manager

GJ04374-01 SAMPLE RESULTS - 01
Collected date/time: 10/24/23 12:48 L1672534

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	-0.280	U	0.607		1.10		11/11/2023 11:15	WG2165571
(T) Barium	*108*					*30.0-143*	*11/11/2023 11:15*	WG2165571
(T) Yttrium	*109*					*30.0-136*	*11/11/2023 11:15*	WG2165571

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.493	J	0.659	1.11	11/11/2023 11:15	WG2164135

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	0.493		0.256		0.162		11/08/2023 22:53	WG2164135
(T) Barium-133	*81.5*					*30.0-143*	*11/08/2023 22:53*	WG2164135

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	0.913		0.404		0.699		11/11/2023 11:15	WG2165571
(T) Barium	*124*					*30.0-143*	*11/11/2023 11:15*	WG2165571
(T) Yttrium	*106*					*30.0-136*	*11/11/2023 11:15*	WG2165571

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.10		0.436	0.717	11/11/2023 11:15	WG2164135

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	0.191		0.163		0.161		11/08/2023 22:53	WG2164135
(T) Barium-133	*81.9*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	0.721	J	0.707		1.25		11/11/2023 11:15	WG2165571
(T) Barium	*128*					*30.0-143*	*11/11/2023 11:15*	WG2165571
(T) Yttrium	*95.9*					*30.0-136*	*11/11/2023 11:15*	WG2165571

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.972	J	0.729	1.26	11/11/2023 11:15	WG2164135

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		0.178		0.165		11/08/2023 22:53	WG2164135
(T) Barium-133	*89.9*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	0.744		0.288		0.496		11/11/2023 11:15	WG2165571
(T) Barium	*118*					*30.0-143*	*11/11/2023 11:15*	WG2165571
(T) Yttrium	*114*					*30.0-136*	*11/11/2023 11:15*	WG2165571

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.878		0.319	0.523	11/11/2023 11:15	WG2164135

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	0.134	J	0.137		0.166		11/08/2023 22:53	WG2164135
(T) Barium-133	*88.9*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	0.782		0.215		0.357		11/13/2023 17:36	WG2166563
(T) Barium	*112*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*106*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.860		0.244	0.398	11/13/2023 17:36	WG2164135

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	0.0782	J	0.115		0.175		11/08/2023 22:53	WG2164135
(T) Barium-133	*85.0*					*30.0-143*	*11/08/2023 22:53*	WG2164135

QUALITY CONTROL SUMMARY

Radiochemistry Data RTE Report

L1672534-01,02,03,04

Method Blank (MB)

(MB) R3999853-1 11/11/23 11:15

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-228	0.392		0.180	0.312	
(T) Barium	*125*		*125*		
(T) Yttrium	*117*		*117*		

L1667014-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1667014-01 11/11/23 11:15 • (DUP) R3999853-5 11/11/23 11:15

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-228	-0.0114	0.271	0.487		0.783	0.335	0.580		200	1.84		20	3
(T) Barium	*122*				*105*	*105*							
(T) Yttrium	*107*				*115*	*115*							

Laboratory Control Sample (LCS)

(LCS) R3999853-2 11/11/23 11:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	5.69	114	80.0-120	
(T) Barium			*107*		
(T) Yttrium			*110*		

L1666683-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-09 11/11/23 11:15 • (MS) R3999853-3 11/11/23 11:15 • (MSD) R3999853-4 11/11/23 11:15

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-228	10.0	0.175	9.64	10.1	94.7	98.9	1	70.0-130			4.32		20
(T) Barium		*116*			*119*	*121*							
(T) Yttrium		*98.7*			*98.7*	*98.5*							

QUALITY CONTROL SUMMARY

Radiochemistry by Method 9315/9320

L1672534-05

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	*114*		*114*		
(T) Yttrium	*94.9*		*94.9*		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

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	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	*118*				*111*	*111*							
(T) Yttrium	*103*				*109*	*109*							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			*114*		
(T) Yttrium			*98.7*		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

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	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		*125*			*122*	*122*							
(T) Yttrium		*110*			*113*	*106*							

QUALITY CONTROL SUMMARY

Radiochemistry 845 Method RTM0104 Rad, EPA

L1672534-01,02,03,04,05

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	*51.7*		*51.7*		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

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	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	*85.8*				*70.8*	*70.8*							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			*67.9*		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

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	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		*81.8*			*82.8*	*76.6*							

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

GJ04374

A221

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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

L1672534

Sample: GJ04374-01
Name: OR20

Sampled: 10/24/23 12:48
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/23 16:00	04/21/24 12:48	

Sample: GJ04374-02
Name: OR11

Sampled: 10/24/23 11:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/23 16:00	04/21/24 11:29	

Sample: GJ04374-03
Name: OM16

Sampled: 10/24/23 15:03
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/23 16:00	04/21/24 15:03	

Sample: GJ04374-04
Name: EB-4

Sampled: 10/24/23 15:30
Matrix: DI Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/23 16:00	04/21/24 15:30	

Sample: GJ04374-05
Name: OR-11 FD

Sampled: 10/24/23 11:29
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/06/23 16:00	04/21/24 11:29	

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04374

L1672534

115

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: 10/27/23 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
	10/27/23 1830		
		Hayley Rotwitz	10/31/23 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 21, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1672539
Samples Received:	10/31/2023
Project Number:	GH04588
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By: Haley Torrence

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.

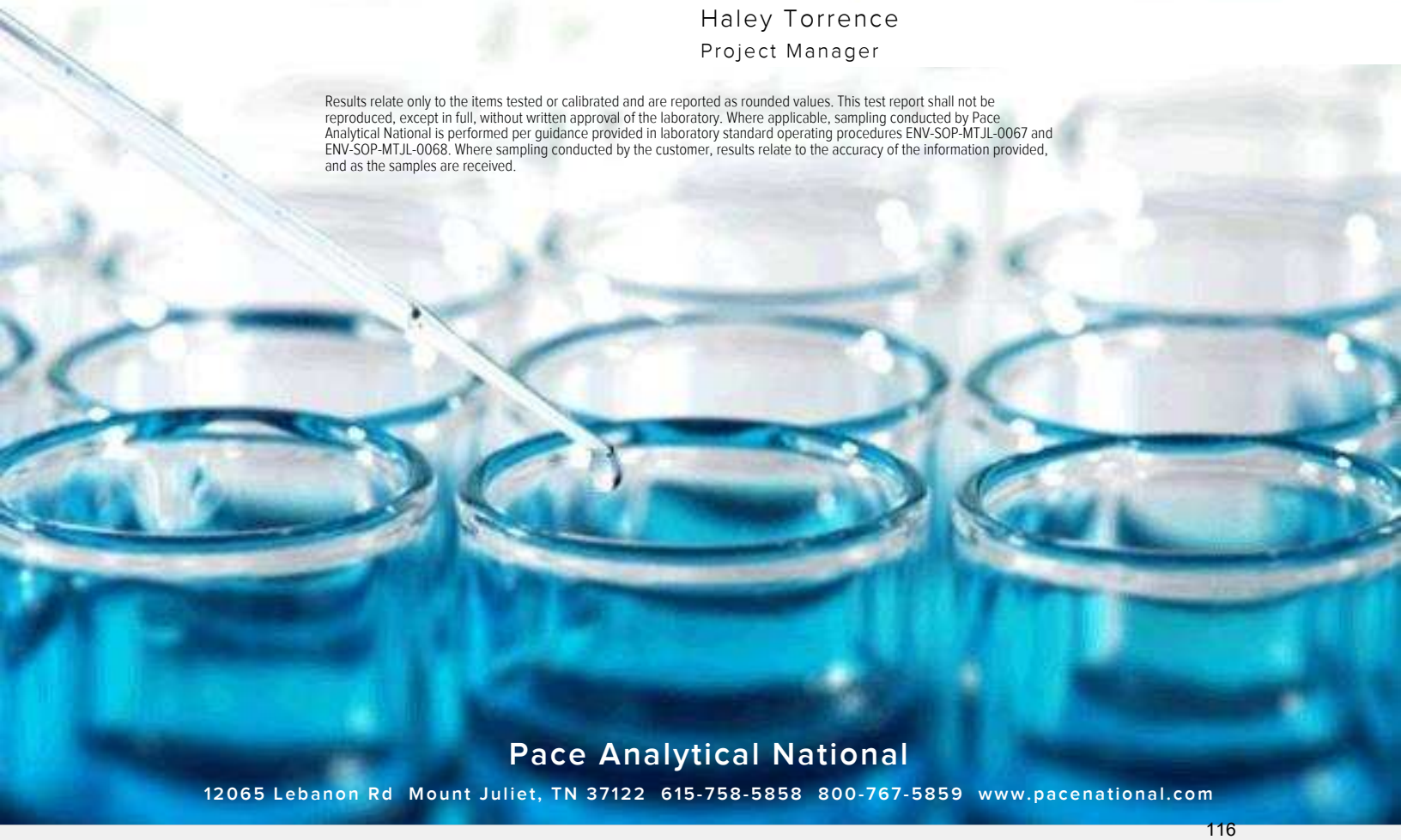


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SAMPLE SUMMARY

GJ04588-01 L1672539-01 Non-Potable Water

Collected by | Collected date/time 10/25/23 10:15 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-02 L1672539-02 Non-Potable Water

Collected by | Collected date/time 10/25/23 15:38 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-03 L1672539-03 Non-Potable Water

Collected by | Collected date/time 10/25/23 11:37 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-04 L1672539-04 Non-Potable Water

Collected by | Collected date/time 10/25/23 14:20 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-05 L1672539-05 Non-Potable Water

Collected by | Collected date/time 10/05/23 13:00 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04588-06 L1672539-06 Non-Potable Water

Collected by | Collected date/time 10/25/23 15:53 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	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.



Haley Torrence
Project Manager

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	0.837		0.278		0.469		11/13/2023 17:36	WG2166563
(T) Barium	*113*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*109*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.23		0.347	0.493	11/13/2023 17:36	WG2164135

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	0.392		0.208		0.151		11/08/2023 22:53	WG2164135
(T) Barium-133	*95.6*					*30.0-143*	*11/08/2023 22:53*	WG2164135

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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		0.401		0.689		11/13/2023 17:36	WG2166563
(T) Barium	*108*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*78.8*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.39		0.474	0.702	11/13/2023 17:36	WG2164135

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	0.596		0.253		0.133		11/08/2023 22:53	WG2164135
(T) Barium-133	*93.9*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	0.0183	U	0.413		0.733		11/13/2023 17:36	WG2166563
(T) Barium	*106*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*84.4*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.500	J	0.487	0.752	11/13/2023 17:36	WG2164135

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		0.259		0.170		11/08/2023 22:53	WG2164135
(T) Barium-133	*78.4*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	1.77		0.556		0.934		11/13/2023 17:36	WG2166563
(T) Barium	*98.5*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*108*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.65		0.635	0.943	11/13/2023 17:36	WG2164135

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	0.873		0.306		0.133		11/08/2023 22:53	WG2164135
(T) Barium-133	*103*					*30.0-143*	*11/08/2023 22:53*	WG2164135

GJ04588-05 SAMPLE RESULTS - 05
Collected date/time: 10/05/23 13:00 L1672539

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	1.12		0.522		0.896		11/13/2023 17:36	WG2166563
(T) Barium	*108*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*95.1*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.15		0.620	0.906	11/13/2023 17:36	WG2164135

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	1.03		0.335		0.136		11/08/2023 22:53	WG2164135
(T) Barium-133	*92.1*					*30.0-143*	*11/08/2023 22:53*	WG2164135

GJ04588-06 SAMPLE RESULTS - 06
Collected date/time: 10/25/23 15:53 L1672539

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	-0.127	U	0.258		0.467		11/13/2023 17:36	WG2166563
(T) Barium	*126*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*79.4*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0747	U	0.275	0.485	11/13/2023 17:36	WG2164135

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	0.0747	J	0.0960		0.132		11/08/2023 22:53	WG2164135
(T) Barium-133	*98.6*					*30.0-143*	*11/08/2023 22:53*	WG2164135

QUALITY CONTROL SUMMARY

Radiochemistry by Method RT6020 L1672539-01,02,03,04,05,06

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	*114*		*114*		
(T) Yttrium	*94.9*		*94.9*		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

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	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	*118*				*111*	*111*							
(T) Yttrium	*103*				*109*	*109*							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			*114*		
(T) Yttrium			*98.7*		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

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	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		*125*			*122*	*122*							
(T) Yttrium		*110*			*113*	*106*							

QUALITY CONTROL SUMMARY

Radiochemistry Method TNI 2016 Rad

L1672539-01,02,03,04,05,06

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	*51.7*		*51.7*		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

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	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	*85.8*				*70.8*	*70.8*							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			*67.9*		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

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	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		*81.8*			*82.8*	*76.6*							

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

GJ04588

A220

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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

L672539

Sample: GJ04588-01
Name: OM04S

Sampled: 10/25/23 10:15
Matrix: Ground Water
Preservative: HNO3, pH <2 -01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/22/24 10:15	

Sample: GJ04588-02
Name: OM21

Sampled: 10/25/23 15:38
Matrix: Ground Water
Preservative: HNO3, pH <2 -02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/22/24 15:38	

Sample: GJ04588-03
Name: OR04D

Sampled: 10/25/23 11:37
Matrix: Ground Water
Preservative: HNO3, pH <2 -03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/22/24 11:37	

Sample: GJ04588-04
Name: OR14D

Sampled: 10/25/23 14:20
Matrix: Ground Water
Preservative: HNO3, pH <2 -04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/22/24 14:20	

Sample: GJ04588-05
Name: OR19

Sampled: 10/05/23 13:00
Matrix: Ground Water
Preservative: HNO3, pH <2 -05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/02/24 13:00	

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04588

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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

L1677539

Sample: GJ04588-06
Name: EB-5

Sampled: 10/25/23 15:53
Matrix: DI Water
Preservative: HNO3, pH <2 -06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/07/23 16:00	04/22/24 15:53	

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: 10/27/23 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
	10/27/23 1830		
		Hayley Rotter	10/31/23 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

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

ANALYTICAL REPORT

December 01, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1672549
Samples Received:	10/31/2023
Project Number:	GJ04862
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

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.

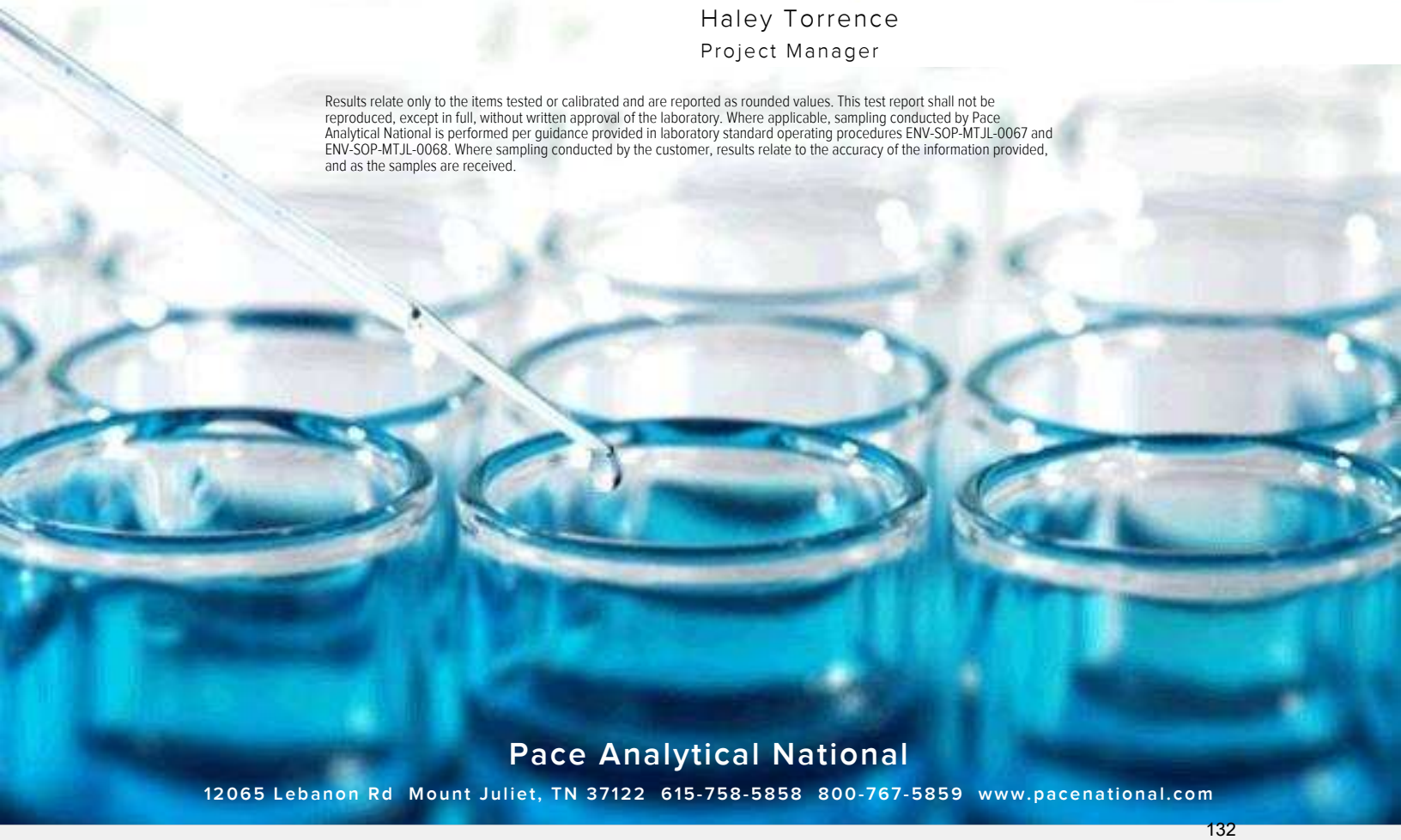


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SAMPLE SUMMARY

GJ04862-01 L1672549-01 Non-Potable Water

Collected by | Collected date/time 10/26/23 11:55 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-02 L1672549-02 Non-Potable Water

Collected by | Collected date/time 10/26/23 15:31 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-03 L1672549-03 Non-Potable Water

Collected by | Collected date/time 10/26/23 13:53 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-04 L1672549-04 Non-Potable Water

Collected by | Collected date/time 10/26/23 13:38 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-05 L1672549-05 Non-Potable Water

Collected by | Collected date/time 10/26/23 12:04 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-06 L1672549-06 Non-Potable Water

Collected by | Collected date/time 10/26/23 10:45 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

GJ04862-07 L1672549-07 Non-Potable Water

Collected by | Collected date/time 10/26/23 14:40 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04862-08 L1672549-08 Non-Potable Water

Collected by | Collected date/time 10/26/23 13:23 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

EB-6 L1672549-09 Non-Potable Water

Collected by | Collected date/time 10/26/23 14:58 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

EB-7 L1672549-10 Non-Potable Water

Collected by | Collected date/time 10/26/23 15:25 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2168338	1	11/09/23 22:55	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/15/23 17:04	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	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.



Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/29/23 14:34
Level II Report - Version 2: 11/30/23 11:10

Project Narrative

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	0.881		0.282		0.476		11/13/2023 17:36	WG2166563
(T) Barium	*113*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*119*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.30		0.357	0.496	11/13/2023 17:36	WG2164497

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	0.422		0.219		0.138		11/07/2023 23:36	WG2164497
(T) Barium-133	*87.6*					*30.0-143*	*11/07/2023 23:36*	WG2164497

GJ04862-02 SAMPLE RESULTS - 02
Collected date/time: 10/26/23 15:31 L1672549

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	-0.112	U	0.304		0.541		11/13/2023 17:36	WG2166563
(T) Barium	*113*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*87.2*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0485	U	0.332	0.593	11/13/2023 17:36	WG2164497

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	0.0485	U	0.134		0.243		11/07/2023 23:36	WG2164497
(T) Barium-133	*87.4*					*30.0-143*	*11/07/2023 23:36*	WG2164497

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	0.771		0.320		0.545		11/13/2023 17:36	WG2166563
(T) Barium	*111*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*90.4*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.812		0.348	0.597	11/13/2023 17:36	WG2164497

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	0.0416	U	0.138		0.244		11/07/2023 23:36	WG2164497
(T) Barium-133	*94.3*					*30.0-143*	*11/07/2023 23:36*	WG2164497

GJ04862-04 SAMPLE RESULTS - 04
Collected date/time: 10/26/23 13:38 L1672549

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	0.101	U	0.299		0.525		11/13/2023 17:36	WG2166563
(T) Barium	*125*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*105*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.492	J	0.380	0.568	11/13/2023 17:36	WG2164497

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	0.391		0.235		0.218		11/07/2023 23:36	WG2164497
(T) Barium-133	*88.1*					*30.0-143*	*11/07/2023 23:36*	WG2164497

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	J	0.306		0.530		11/13/2023 17:36	WG2166563
(T) Barium	*104*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*97.3*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.681		0.430	0.680	11/13/2023 17:36	WG2164497

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	0.302		0.426		11/07/2023 23:36	WG2164497
(T) Barium-133	*73.9*					*30.0-143*	*11/07/2023 23:36*	WG2164497

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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	0.666		0.312		0.531		11/15/2023 17:04	WG2168338
(T) Barium	*92.8*					*30.0-143*	*11/15/2023 17:04*	WG2168338
(T) Yttrium	*98.7*					*30.0-136*	*11/15/2023 17:04*	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.24		0.437	0.609	11/15/2023 17:04	WG2164497

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		0.306		0.299		11/07/2023 23:36	WG2164497
(T) Barium-133	*96.0*					*30.0-143*	*11/07/2023 23:36*	WG2164497

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	0.620		0.272		0.462		11/15/2023 17:04	WG2168338
(T) Barium	*100*					*30.0-143*	*11/15/2023 17:04*	WG2168338
(T) Yttrium	*103*					*30.0-136*	*11/15/2023 17:04*	WG2168338

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.17		0.396	0.525	11/15/2023 17:04	WG2164497

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	0.549		0.288		0.250		11/07/2023 23:36	WG2164497
(T) Barium-133	*91.1*					*30.0-143*	*11/07/2023 23:36*	WG2164497

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	0.316		0.561		11/15/2023 17:04	WG2168338
(T) Barium	*97.2*					*30.0-143*	*11/15/2023 17:04*	WG2168338
(T) Yttrium	*110*					*30.0-136*	*11/15/2023 17:04*	WG2168338

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.440	J	0.419	0.630	11/15/2023 17:04	WG2164497

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	0.440		0.275		0.287		11/07/2023 23:36	WG2164497
(T) Barium-133	*84.9*					*30.0-143*	*11/07/2023 23:36*	WG2164497

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	0.540		0.298		0.509		11/15/2023 17:04	WG2168338
(T) Barium	*104*					*30.0-143*	*11/15/2023 17:04*	WG2168338
(T) Yttrium	*101*					*30.0-136*	*11/15/2023 17:04*	WG2168338

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.580		0.328	0.577	11/15/2023 17:04	WG2164497

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	0.138		0.272		11/07/2023 23:36	WG2164497
(T) Barium-133	*73.1*					*30.0-143*	*11/07/2023 23:36*	WG2164497

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	-0.215	U	0.307		0.543		11/15/2023 17:04	WG2168338
(T) Barium	*114*					*30.0-143*	*11/15/2023 17:04*	WG2168338
(T) Yttrium	*110*					*30.0-136*	*11/15/2023 17:04*	WG2168338

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.179	U	0.380	0.631	11/15/2023 17:04	WG2164497

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	0.224		0.321		11/07/2023 23:36	WG2164497
(T) Barium-133	*69.9*					*30.0-143*	*11/07/2023 23:36*	WG2164497

QUALITY CONTROL SUMMARY

Radiochemistry by Method 9315/9320 L1672549-01,02,03,04,05

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	*114*		*114*		
(T) Yttrium	*94.9*		*94.9*		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

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	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	*118*				*111*	*111*							
(T) Yttrium	*103*				*109*	*109*							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			*114*		
(T) Yttrium			*98.7*		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

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	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		*125*			*122*	*122*							
(T) Yttrium		*110*			*113*	*106*							

Method Blank (MB)

(MB) R4005409-1 11/15/23 17:04

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.187	J	0.171	0.298	
(T) Barium	*102*		*102*		
(T) Yttrium	*99.6*		*99.6*		

L1672549-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1672549-10 11/15/23 17:04 • (DUP) R4005409-3 11/15/23 17:04

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	-0.215	0.307	0.543		0.257	0.342	0.598		200	1.03	J	20	3
(T) Barium	*114*				*112*	*112*							
(T) Yttrium	*110*				*101*	*101*							

Laboratory Control Sample (LCS)

(LCS) R4005409-2 11/15/23 17:04

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.23	84.7	80.0-120	
(T) Barium			*118*		
(T) Yttrium			*107*		

L1668230-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1668230-08 11/22/23 21:28 • (MS) R4005409-6 11/22/23 21:28 • (MSD) R4005409-7 11/22/23 21:28

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	6.02	11.7	12.9	57.2	68.6	1	70.0-130	J6	J6	9.26		20
(T) Barium		*84.8*			*104*	*103*							
(T) Yttrium		*105*			*98.9*	*114*							

QUALITY CONTROL SUMMARY

Radiochemistry 845 Method RTM-0010 Rad 226 L1672549-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R3999792-1 11/07/23 23:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.000	U	0.0489	0.0955	
(T) Barium-133	*67.9*		*67.9*		

L1672549-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1672549-09 11/07/23 23:36 • (DUP) R3999792-5 11/07/23 23:35

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	0.0408	0.138	0.272		0.118	0.298	0.471		97.1	0.234	U	20	3
(T) Barium-133	*73.1*				*61.6*	*61.6*							

Laboratory Control Sample (LCS)

(LCS) R3999792-2 11/07/23 23:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.47	109	80.0-120	
(T) Barium-133			*78.8*		

L1671796-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671796-01 11/07/23 23:36 • (MS) R3999792-3 11/07/23 23:35 • (MSD) R3999792-4 11/07/23 23:35

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	0.202	21.0	22.6	104	112	1	75.0-125			7.07		20
(T) Barium-133		*70.2*			*67.7*	*71.3*							

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

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

GJ04862

LL672549

152

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: GJ04862-06
Name: OM12

Sampled: 10/26/23 10:45
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 10:45	

Sample: GJ04862-07
Name: OR06A

Sampled: 10/26/23 14:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 14:40	

Sample: GJ04862-08
Name: OR13D

Sampled: 10/26/23 13:23
Matrix: Ground Water
Preservative: HNO3, pH <2

-08

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 13:23	

Sample: GJ04862-09
Name: ~~Equipment Blank 7~~ EB-6 11/3/23 dab

Sampled: 10/26/23 14:58
Matrix: DI Water
Preservative: HNO3, pH <2

-09

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 14:58	

Sample: GJ04862-10
Name: ~~Equipment Blank 8~~ EB-7 11/3/23 dab

Sampled: 10/26/23 15:25
Matrix: DI Water
Preservative: HNO3, pH <2

-10

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 15:25	

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845205

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC
GJ04862

A218

153

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

L1672549

Sample: GJ04862-01
Name: G51S

Sampled: 10/26/23 11:55
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 11:55	

Sample: GJ04862-02
Name: G62L

Sampled: 10/26/23 15:31
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 15:31	

Sample: GJ04862-03
Name: G64L

Sampled: 10/26/23 13:53
Matrix: Ground Water
Preservative: HNO3, pH <2

-03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 13:53	

Sample: GJ04862-04
Name: G64S

Sampled: 10/26/23 13:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-04

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 13:38	

Sample: GJ04862-05
Name: OM07

Sampled: 10/26/23 12:04
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/08/23 16:00	04/23/24 12:04	

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04862

L1672519

154

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		

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

Date Shipped: 10/27/23 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
	10/26/23 1830		
		Hailey Rohrbacher	10/31/23 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 29, 2023

Revised Report

Pace IR - Peoria, IL

Sample Delivery Group:	L1672545
Samples Received:	10/31/2023
Project Number:	GJ04998
Description:	

Report To: Diane Billings
2231 W. Altorfer Drive
Peoria, IL 61615

Entire Report Reviewed By:

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.

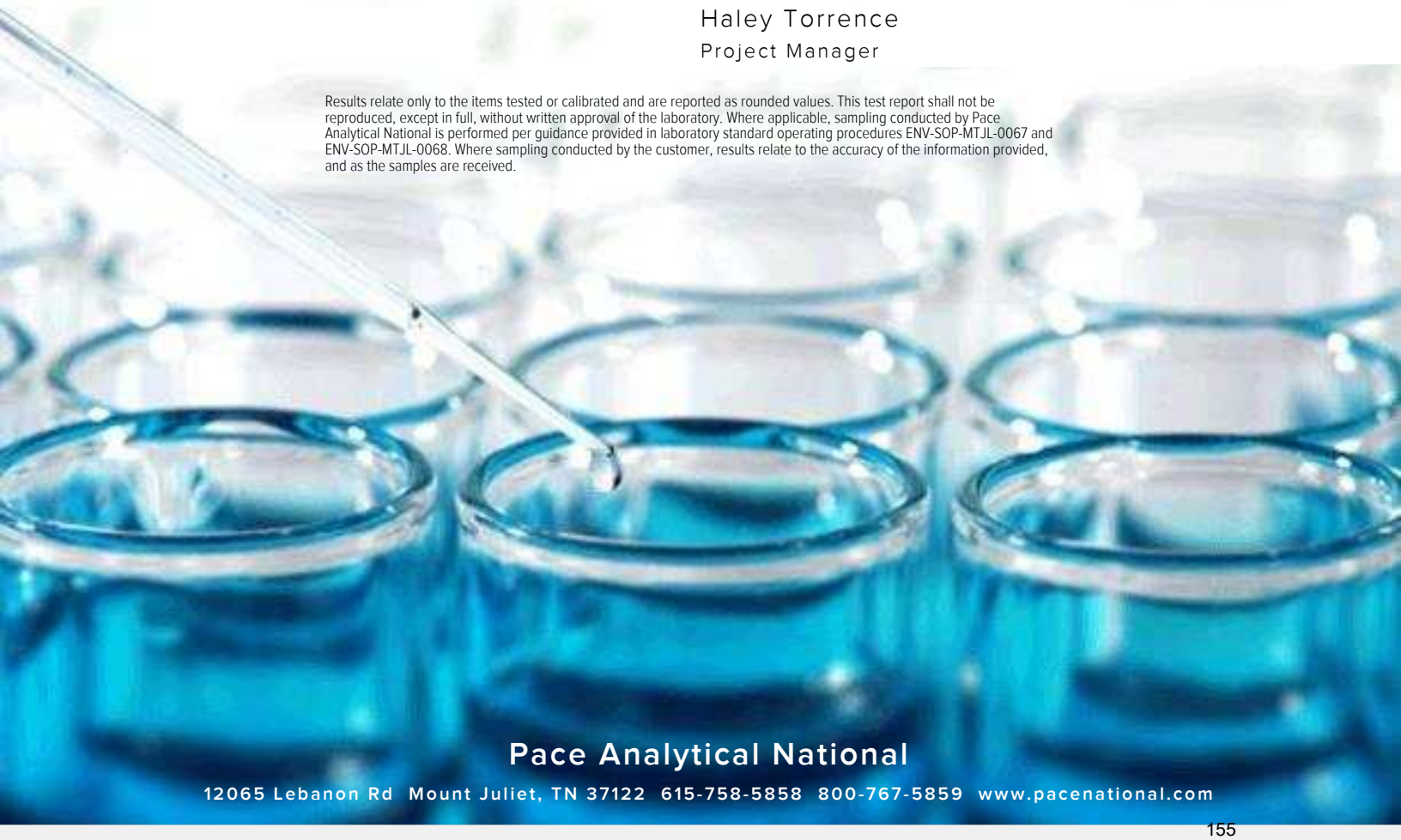


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SAMPLE SUMMARY

GJ04998-01 L1672545-01 Non-Potable Water

Collected by | Collected date/time 10/27/23 13:38 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-02 L1672545-02 Non-Potable Water

Collected by | Collected date/time 10/27/23 11:54 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-03 L1672545-03 Non-Potable Water

Collected by | Collected date/time 10/27/23 13:30 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-04 L1672545-04 Non-Potable Water

Collected by | Collected date/time 10/27/23 13:40 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164135	1	11/04/23 10:16	11/13/23 17:36	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164135	1	11/04/23 10:16	11/08/23 22:53	RGT	Mt. Juliet, TN

GJ04998-05 L1672545-05 Non-Potable Water

Collected by | Collected date/time 10/27/23 13:40 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

GJ04998-06 L1672545-06 Non-Potable Water

Collected by | Collected date/time 10/27/23 15:43 | Received date/time 10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

GJ04998-07 L1672545-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	10/27/23 15:40	10/31/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2166563	1	11/08/23 17:03	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2164497	1	11/04/23 13:25	11/13/23 17:36	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2164497	1	11/04/23 13:25	11/07/23 23:36	RGT	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.



Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 11/21/23 09:26

Project Narrative

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	0.0926	U	0.204		0.363		11/13/2023 17:36	WG2166563
(T) Barium	*126*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*101*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.178	J	0.231	0.393	11/13/2023 17:36	WG2164135

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	0.0851	J	0.109		0.150		11/08/2023 22:53	WG2164135
(T) Barium-133	*85.8*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	0.732		0.214		0.358		11/13/2023 17:36	WG2166563
(T) Barium	*111*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*124*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.14		0.447	0.383	11/13/2023 17:36	WG2164135

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	1.41		0.393		0.137		11/08/2023 22:53	WG2164135
(T) Barium-133	*94.1*					*30.0-143*	*11/08/2023 22:53*	WG2164135

GJ04998-03 SAMPLE RESULTS - 03
Collected date/time: 10/27/23 13:30 L1672545

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	1.22		0.511		0.871		11/13/2023 17:36	WG2166563
(T) Barium	*96.6*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*102*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	4.54		0.794	0.882	11/13/2023 17:36	WG2164135

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	3.32		0.608		0.140		11/08/2023 22:53	WG2164135
(T) Barium-133	*94.6*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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		0.608		1.03		11/13/2023 17:36	WG2166563
(T) Barium	*94.1*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*90.1*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.13		0.657	1.04	11/13/2023 17:36	WG2164135

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	0.557		0.249		0.137		11/08/2023 22:53	WG2164135
(T) Barium-133	*98.4*					*30.0-143*	*11/08/2023 22:53*	WG2164135

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	-0.0788	U	0.279		0.495		11/13/2023 17:36	WG2166563
(T) Barium	*105*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*106*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.19		0.484	0.549	11/13/2023 17:36	WG2164497

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	1.19		0.395		0.238		11/07/2023 23:36	WG2164497
(T) Barium-133	*82.3*					*30.0-143*	*11/07/2023 23:36*	WG2164497

GJ04998-06 SAMPLE RESULTS - 06
Collected date/time: 10/27/23 15:43 L1672545

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	0.111	U	0.233		0.412		11/13/2023 17:36	WG2166563
(T) Barium	*114*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*108*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.212	J	0.266	0.448	11/13/2023 17:36	WG2164497

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	0.101	J	0.129		0.177		11/07/2023 23:36	WG2164497
(T) Barium-133	*76.9*					*30.0-143*	*11/07/2023 23:36*	WG2164497

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	-0.273	U	0.267		0.480		11/13/2023 17:36	WG2166563
(T) Barium	*118*					*30.0-143*	*11/13/2023 17:36*	WG2166563
(T) Yttrium	*103*					*30.0-136*	*11/13/2023 17:36*	WG2166563

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.155	U	0.304	0.505	11/13/2023 17:36	WG2164497

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	0.155	J	0.146		0.158		11/07/2023 23:36	WG2164497
(T) Barium-133	*71.9*					*30.0-143*	*11/07/2023 23:36*	WG2164497

QUALITY CONTROL SUMMARY

Radiochemistry Method: RTEB3.0 L1672545-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3999867-1 11/13/23 17:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	U	0.183	0.323	
(T) Barium	*114*		*114*		
(T) Yttrium	*94.9*		*94.9*		

L1672545-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-07 11/13/23 17:36 • (DUP) R3999867-5 11/13/23 17:36

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	-0.273	0.267	0.480		0.546	0.345	0.598		200	1.88	J	20	3
(T) Barium	*118*				*111*	*111*							
(T) Yttrium	*103*				*109*	*109*							

Laboratory Control Sample (LCS)

(LCS) R3999867-2 11/13/23 17:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.96	99.1	80.0-120	
(T) Barium			*114*		
(T) Yttrium			*98.7*		

L1666683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1666683-01 11/13/23 17:36 • (MS) R3999867-3 11/13/23 17:36 • (MSD) R3999867-4 11/13/23 17:36

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	10.0	1.63	8.90	10.1	72.6	84.4	1	70.0-130			12.4		20
(T) Barium		*125*			*122*	*122*							
(T) Yttrium		*110*			*113*	*106*							

Method Blank (MB)

(MB) R4002379-1 11/08/23 22:53

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0217	U	0.0449	0.0811	
(T) Barium-133	*51.7*		*51.7*		

L1672545-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1672545-01 11/08/23 22:53 • (DUP) R4002379-5 11/08/23 22:53

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	0.0851	0.109	0.150		0.167	0.180	0.215		64.9	0.388	J	20	3
(T) Barium-133	*85.8*				*70.8*	*70.8*							

Laboratory Control Sample (LCS)

(LCS) R4002379-2 11/08/23 22:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.50	110	80.0-120	
(T) Barium-133			*67.9*		

L1670210-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1670210-09 11/08/23 22:53 • (MS) R4002379-3 11/08/23 22:53 • (MSD) R4002379-4 11/08/23 22:53

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	-0.00828	21.9	22.8	109	114	1	75.0-125			4.12		20
(T) Barium-133		*81.8*			*82.8*	*76.6*							

QUALITY CONTROL SUMMARY

Radiochemistry 845 Method RTM-0010 Rad GFPC

L1672545-05,06,07

Method Blank (MB)

(MB) R3999792-1 11/07/23 23:35

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.000	U	0.0489	0.0955	
(T) Barium-133	*67.9*		*67.9*		

L1672549-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1672549-09 11/07/23 23:36 • (DUP) R3999792-5 11/07/23 23:35

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	0.0408	0.138	0.272		0.118	0.298	0.471		97.1	0.234	U	20	3
(T) Barium-133	*73.1*				*61.6*	*61.6*							

Laboratory Control Sample (LCS)

(LCS) R3999792-2 11/07/23 23:35

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.47	109	80.0-120	
(T) Barium-133			*78.8*		

L1671796-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1671796-01 11/07/23 23:36 • (MS) R3999792-3 11/07/23 23:35 • (MSD) R3999792-4 11/07/23 23:35

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	0.202	21.0	22.6	104	112	1	75.0-125			7.07		20
(T) Barium-133		*70.2*			*67.7*	*71.3*							

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
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

GJ04998

L1672545

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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: GJ04998-05
Name: OM01 DUP

Sampled: 10/27/23 13:40
Matrix: Ground Water
Preservative: HNO3, pH <2

-05

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:40	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:40	

Sample: GJ04998-06
Name: ~~EQUIP BLANK 9~~ EB-8 dab 10/27/23

Sampled: 10/27/23 ~~13:40~~ 1543 10/27/23 dab
Matrix: Ground Water
Preservative: HNO3, pH <2

-06

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:40	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:40	

Sample: GJ04998-07
Name: ~~EQUIP BLANK 10~~ EB-9 10/27/23 dab

Sampled: 10/27/23 ~~13:40~~ 1540 10/27/23 dab
Matrix: Ground Water
Preservative: HNO3, pH <2

-07

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:40	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:40	

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04998

A219

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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

L1672545

Sample: GJ04998-01
Name: G54L

Sampled: 10/27/23 13:38
Matrix: Ground Water
Preservative: HNO3, pH <2

-01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:38	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:38	

Sample: GJ04998-02
Name: G54S

Sampled: 10/27/23 11:54
Matrix: Ground Water
Preservative: HNO3, pH <2

-02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 11:54	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 11:54	

Sample: GJ04998-03
Name: OR02

Sampled: ~~10/27/23 11:54~~ 1330 10/27/23
Matrix: Ground Water
Preservative: HNO3, pH <2

-03 dab

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 11:54	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 11:54	

Sample: GJ04998-04
Name: OMO1

Sampled: ~~10/27/23 13:30~~ 1340 10/27/23
Matrix: Ground Water
Preservative: HNO3, pH <2

-04 dab

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:30	
01-Radium 226/228 combined	11/09/23 16:00	04/24/24 13:30	

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ04998

L1672545

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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: 10/27/26 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
	10/27/23 1830		
		Hailey Rotunda	10/31/23 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

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

ANALYTICAL REPORT

November 30, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1673772
Samples Received:	11/03/2023
Project Number:	GJ05392
Description:	
Site:	01
Report To:	Diane Billings 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

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.

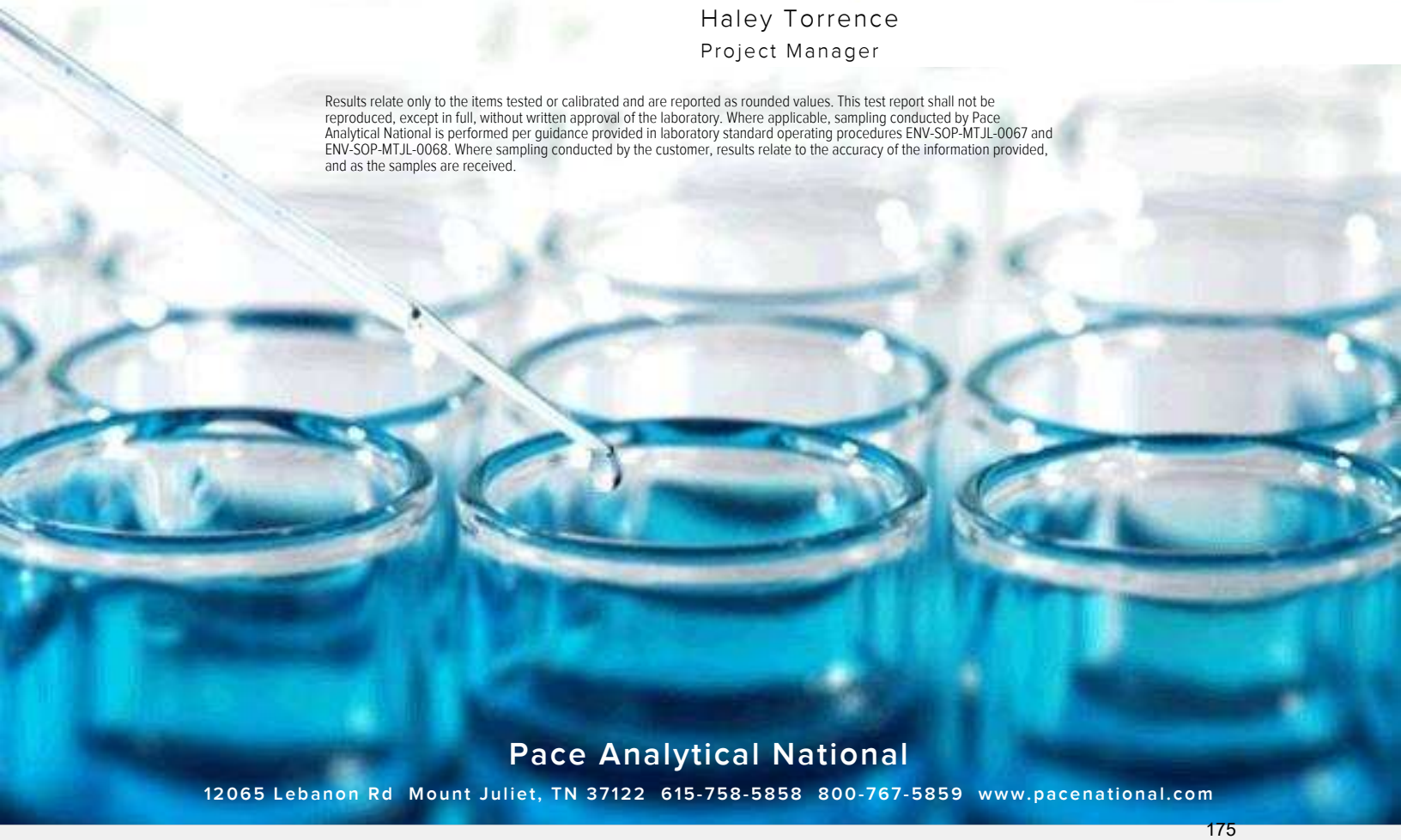


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SAMPLE SUMMARY

GJ05392-01 L1673772-01 Non-Potable Water

Collected by | Collected date/time 10/31/23 10:27 | Received date/time 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

GJ05392-02 L1673772-02 Non-Potable Water

Collected by | Collected date/time 10/31/23 11:40 | Received date/time 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	Mt. Juliet, TN

GJ05392-03 L1673772-03 Non-Potable Water

Collected by | Collected date/time 10/31/23 14:27 | Received date/time 11/03/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2171834	1	11/15/23 22:43	11/21/23 14:19	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2166556	1	11/09/23 15:03	11/21/23 14:19	RRE	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2166556	1	11/09/23 15:03	11/13/23 17:48	RRE	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.



Haley Torrence
Project Manager

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	0.673	J	0.642		1.12		11/21/2023 14:19	WG2171834
(T) Barium	*112*					*30.0-143*	*11/21/2023 14:19*	WG2171834
(T) Yttrium	*121*					*30.0-136*	*11/21/2023 14:19*	WG2171834

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.55		0.729	1.15	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/g	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/g	Lc pCi/g	Analysis Date date / time	Batch
RADIUM-226	0.879		0.346	0.157	0.240	0.168	11/13/2023 17:48	WG2166556
(T) Barium-133	*88.3*					*30.0-143*	*11/13/2023 17:48*	WG2166556

SAMPLE RESULTS - 02

GJ05392-02
Collected date/time: 10/31/23 11:40
L1673772

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	0.440	J	0.264		0.456		11/21/2023 14:19	WG2171834
(T) Barium	*122*					*30.0-143*	*11/21/2023 14:19*	WG2171834
(T) Yttrium	*101*					*30.0-136*	*11/21/2023 14:19*	WG2171834

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.636		0.320	0.511	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/g	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/g	Lc pCi/g	Analysis Date date / time	Batch
RADIUM-226	0.196	J	0.181	0.0856	0.231	0.155	11/13/2023 17:48	WG2166556
(T) Barium-133	*99.9*					*30.0-143*	*11/13/2023 17:48*	WG2166556

SAMPLE RESULTS - 03

GJ05392-03
Collected date/time: 10/31/23 14:27
L1673772

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	0.591		0.329		0.568		11/21/2023 14:19	WG2171834
(T) Barium	*125*					*30.0-143*	*11/21/2023 14:19*	WG2171834
(T) Yttrium	*116*					*30.0-136*	*11/21/2023 14:19*	WG2171834

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.739		0.368	0.610	11/21/2023 14:19	WG2166556

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/g	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/g	Lc pCi/g	Analysis Date date / time	Batch
RADIUM-226	0.148	J	0.165	0.0681	0.222	0.158	11/13/2023 17:48	WG2166556
(T) Barium-133	*86.7*					*30.0-143*	*11/13/2023 17:48*	WG2166556

Method Blank (MB)

(MB) R4005417-1 11/21/23 14:19

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-228	0.406		0.184	0.315	
(T) Barium	*89.6*		*89.6*		
(T) Yttrium	*109*		*109*		

L1673770-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1673770-04 11/21/23 14:19 • (DUP) R4005417-5 11/21/23 14:19

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-228	1.17	0.430	0.728		-0.0160	0.321	0.573		200	2.20	U	20	3
(T) Barium	*113*				*105*	*105*							
(T) Yttrium	*94.9*				*118*	*118*							

Laboratory Control Sample (LCS)

(LCS) R4005417-2 11/21/23 14:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	5.54	111	80.0-120	
(T) Barium			*120*		
(T) Yttrium			*119*		

L1673772-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1673772-03 11/21/23 14:19 • (MS) R4005417-3 11/21/23 14:19 • (MSD) R4005417-4 11/21/23 14:19

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-228	16.7	0.591	16.6	18.0	96.0	104	1	70.0-130			7.86		20
(T) Barium		*125*			*112*	*111*							
(T) Yttrium		*116*			*104*	*114*							

QUALITY CONTROL SUMMARY

Radiochemistry Method: EPA 903.1 Modified

L1673772-01,02,03

Method Blank (MB)

(MB) R4005932-1 11/13/23 17:48

Analyte	MB Result pCi/g	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/g	MB Lc pCi/g
Radium-226	0.00880	U	0.0323	0.0566	0.0350
(T) Barium-133	*78.7*		*78.7*		

L1673772-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1673772-03 11/13/23 17:48 • (DUP) R4005932-5 11/13/23 17:48

Analyte	Original Result pCi/g	Original 2 sigma CE + / -	Original MDA pCi/g	Original Lc pCi/g	DUP Result pCi/g	DUP 2 sigma CE + / -	DUP MDA pCi/g	DUP Lc pCi/g	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.148	0.165	0.222	0.158	-0.107	0.210	0.429	0.269	200	0.956	U	20	3
(T) Barium-133	*86.7*				*67.6*	*67.6*							

Laboratory Control Sample (LCS)

(LCS) R4005932-2 11/13/23 17:48

Analyte	Spike Amount pCi/g	LCS Result pCi/g	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.55	111	80.0-120	
(T) Barium-133			*74.5*		

L1664280-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1664280-28 11/13/23 17:48 • (MS) R4005932-3 11/13/23 17:48 • (MSD) R4005932-4 11/13/23 17:48

Analyte	Spike Amount pCi/g	Original Result pCi/g	MS Result pCi/g	MSD Result pCi/g	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	1.15	24.3	25.2	116	120	1	75.0-125			3.68		20
(T) Barium-133		*63.1*			*70.0*	*57.1*							

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

GJ05392

A092

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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

467372

Sample: GJ05392-01
Name: G60S

Sampled: 10/31/23 10:27
Matrix: Ground Water
Preservative: HNO3, pH <2

01

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 10:27	
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 10:27	

Sample: GJ05392-02
Name: R61L

Sampled: 10/31/23 11:40
Matrix: Ground Water
Preservative: HNO3, pH <2

02

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 11:40	
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 11:40	

Sample: GJ05392-03
Name: EB-11

Sampled: 10/31/23 14:27
Matrix: DI Water
Preservative: HNO3, pH <2

03

Analysis	Due	Expires	Comments
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 14:27	
01-Radium 226/228 combined	11/13/23 16:00	04/28/24 14:27	

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

SUBCONTRACT ORDER
Transfer Chain of Custody

Pace Analytical Services, LLC

GJ05392

PH-10BDH4321 TRC-2362362
CR6-20221V

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		

12.2±0=12.2 DP AS

7003 7808 0285 **Please email results to Diane Billings at diane.billings@pacelabs.com**

Date Shipped: 11/2/23 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
[signature]	11/2/23 1625	[signature]	11/3/23 9:10

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

187

GJ03211 gsf

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:

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

~~GJ03211~~ gsf

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	OM23S																										
2	OM24D																										
3	OM25D																										
4	OM25S																										
5	OR02																										
6	OR03D																										
7	OR03S																										
8	OR04D																										
9	OR05D																										
10	OR06A																										
11	OR11																										
12	OR13D																										
13	OR13S			10/17/23	1114		11																				
14	~~OR14D~~ EB-1 gsf			10/17/23	1645	dab																					
15	OR14S																										
16	OR18																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		10/17/23	1651		10/17/23	1651

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan Ross

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/17/2023

Confidential

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 10

Section A Required Client Information:

Company: Vistra Corp

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

BJ03501

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	BA01			10/18/23	1325		4																				
2	BA02			10/18/23	1434		4																				
3	BA02L																										No Sample
4	BA03			10/18/23	945		1	3								Read Only											
5	BA03L			10/18/23	950		1																				
6	BA04			10/18/23	1540		4																				
7	BA05																										
8	~~BA00~~ BA01 Dup			10/18/23	1325		4																				
9	G02D			10/18/23	dd																						
10	G02L																										
11	G02S																										
12	G03L																										
13	G03S																										
14	G04L																										
15	G06L																										
16	G06S																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0	Joseph R Reed	10/18/23	1713	Grace	10/18/23	1713

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Reed

SIGNATURE of SAMPLER: Joseph R Reed

DATE Signed (MM/DD/YY):

Confidential

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

GS03741 gw

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	BA01																										
2	BA02																										
3	BA02L																										
4	BA03																										
5	BA03L																										
6	BA04																										
7	BA05	WT	G	10/19/23	1149																						
8	BA06	WT	G	10/19/23	1309																						
9	G02D																										
10	G02L																										
11	G02S	WT	G	10/19/23	1430																						
12	G03L																										
13	G03S																										
14	G04L																										
15	G06L																										
16	G06S																										

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-23Q4 Rev 0	Joseph R Reed	10/19/23	1642							
					10/19/23	1642	14.9	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joseph R Reed

SIGNATURE of SAMPLER: Joseph R Reed

DATE Signed (MM/DD/YY): 10/19/23

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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 GJD4132 gdj

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	G07L																												
2	G08L																												
3	G09L																												
4	G12L																												
5	G12S																												
6	G14L																												
7	~~G15L~~																												
8	G15S																												
9	G16L																												
10	G50L	WT	G	10/23/23	1551		2	1		1																			
11	G50S	WT	G	10/23/23	1609		5	2		3																			
12	G51L																												
13	G51S																												
14	G52L																												
15	G52S																												
16	G53L																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/23/23	1734							
					10/23/23	1734	1.4	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Kembleton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

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

GJ04132 gdf

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	G53S																												
2	G54L																												
3	G54S																												
4	G55L																												
5	G55S																												
6	G56L																												
7	~~G56S~~																												
8	G57L																												
9	G57S																												
10	G58L																												
11	G58S																												
12	G59L																												
13	G59S																												
14	G60L	WT	G	10/23/23	1148		5	2		3																			
15	G60S																												
16	G61S	WT	G	10/23/23	1335		5	2		3																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/23/23	1739							
					10/23/23	1734	1.4	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Remberton
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 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

GJ041327

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	L103																													
2	OM01																													
3	OM04S																													
4	OM05S																													
5	OM07																													
6	OM08																													
7	~~OM09~~																													
8	OM10																													
9	OM12																													
10	OM15																													
11	OM16																													
12	OM17																													
13	OM21																													
14	OM22D	WT	G	10/23/23	1411		11	X	X	X																				
15	OM22S																													
16	OM23D	WT	G	10/23/23	1254		11	X	X	X																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/23/23	1734							
					10/23/23	1734	1.6	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/23/23

Confidential

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

GJ04132 gsj

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	OM23S																													
2	OM24D	WT	G	10/23/23	1049		11	X	X	X																				
3	OM25D																													
4	OM25S	WT	G	10/23/23	1130		11	X	X	X																				
5	OR02																													
6	OR03D	WT	G	10/23/23	1530		11	X	X	X																				
7	~~OR03S~~																													
8	OR04D																													
9	OR05D																													
10	OR06A																													
11	OR11																													
12	OR13D																													
13	OR13S																													
14	OR14D																													
15	OR14S																													
16	OR18																													

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-23Q4 Rev 0		10/23/23	1739							
					10/23/23	1734	1.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

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

GJD4132

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	XTPW02																												
2	Field Blank																												
3	Equipment Blank 3	WT	G	10/23/23	1545		11	X	X	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-23Q4 Rev 0		10/23/23	1734							
					10/23/23	1734	1.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Lamberson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/23/23

Confidential

GJ03961
GS

CHAIN-OF-CUSTODY / Analytical Request Document

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

196

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

Requested Analysis Filtered (Y/N)

ITEM #	Sample ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	BA01																													
2	BA02																													
3	BA02L																													
4	BA03																													
5	BA03L																													
6	BA04																													
7	BA05																													
8	BA06																													
9	G02D																													
10	G02L																													
11	G02S																													
12	G03L	WT	G	10/20/23	1348		5	X	X	X		X																		
13	G03S																													
14	G04L																													
15	G06L																													
16	G06S																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
DC-23Q4 Rev 0		10/20/23	1614				
					10/20/23	1614	3.2 / Y / N / Y

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/20/23

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 10

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G53S																												
2	G54L																												
3	G54S																												
4	G55L																												
5	G55S																												
6	G56L																												
7	G56S	WT	G	10/20/23	1134		2	X		X																			
8	G57L																												
9	G57S	WT	G	10/20/23	1247		5	X		X																			
10	G58L																												
11	G58S	WT	G	10/20/23	1332		2	X		X																			
12	G59L																												
13	G59S	WT	G	10/20/23	1420		2	X		X																			
14	G60L																												
15	G60S																												
16	G61S																												

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-23Q4 Rev 0		10/20/23	1614							
				*	10/20/23	1614	22	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/20/23

* for Zac Courtright 11/11/23

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 7 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	OR19																												
2	OR20																												
3	P01I																												
4	P01L																												
5	P01S																												
6	P02S																												
7	P04S																												
8	P05D																												
9	P05L	WT	G	10/26/23	1130		5	X	X	X		X																	
10	P05S																												
11	P36D																												
12	P36L																												
13	P36S																												
14	P37D																												
15	P37L																												
16	P38L																												

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-23Q4 Rev 0		10/20/23	1614							
				TE	10/20/23	1614	22	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rembert

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/20/23

+ for Zac Cowtright 11/11/23

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 9 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	P57S																											
2	P60																											
3	P61																											
4	P62																											
5	P63																											
6	P64																											
7	R10L																											
8	R11L																											
9	R13L	WT	G	10/20/23	1250		5	X	X	X		X																
10	R61L																											
11	R72S																											
12	T43L																											
13	T44L																											
14	T45L																											
15	T46L																											
16	X301																											

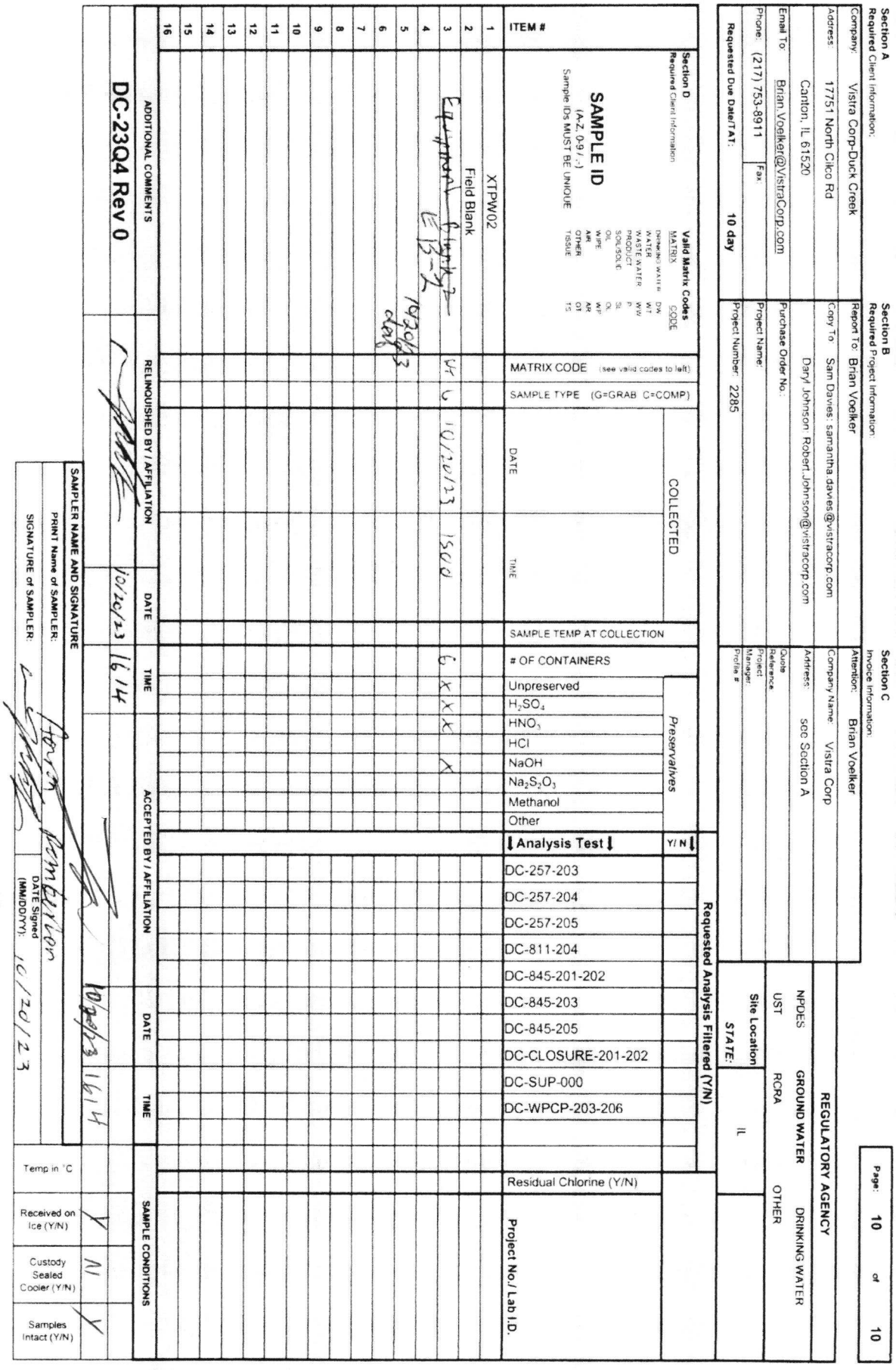
ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/20/23	1614							
				[signature]	10/20/23	1614	2.2	Y	N	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Aaron Pemberton			
SIGNATURE of SAMPLER:	[signature]	DATE Signed (MM/DD/YY):	10/20/23	

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

[signature] for Zac Courtright 11/11/23

Confidential



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 of 10

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

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

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

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

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

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	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	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	XTPW02	WT	G	10/20/23	1500		6	X	X	X		X				DC-257-203			
2	Field Blank	WT	G	10/20/23	1500		6	X	X	X		X				DC-257-204			
3	Equipment Blank 10/20/23 1520 days	WT	G	10/20/23	1520		6	X	X	X		X				DC-257-205			
4																DC-811-204			
5																DC-845-201-202			
6																DC-845-203			
7																DC-845-205			
8																DC-CLOSURE-201-202			
9																DC-SUP-000			
10																DC-WPCP-203-206			
11																			
12																			
13																			
14																			
15																			
16																			

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS: DC-23Q4 Rev 0

RELINQUISHED BY / AFFILIATION — DATE — TIME
ACCEPTED BY / AFFILIATION — DATE — TIME

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 10/20/23

SAMPLE CONDITIONS

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

Confidential

GW04314
GW04373
SB

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 of 10

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

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 #	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	L103																											
2	OM01																											
3	OM04S																											
4	OM05S																											
5	OM07																											
6	OM08																											
7	OM09																											
8	OM10																											
9	OM12																											
10	OM15																											
11	OM16	WT	G	10/24/23	1503		11	X	X	X																		
12	OM17	WT	G	10/24/23	1346		0																					
13	OM21																											
14	OM22D																											
15	OM22S																											
16	OM23D																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/24/23	1639							
					10/24/23	1639	5.3	Y	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Aeron Lambertson	Temp in °C	Received on Ice (Y/N)
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 10/24/23	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.

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	OM23S																												
2	OM24D																												
3	OM25D																												
4	OM25S																												
5	OR02																												
6	OR03D																												
7	OR03S																												
8	OR04D																												
9	OR05D																												
10	OR06A																												
11	OR11	WT	G	10/24/23	1129		11	X	X	X																			
12	OR13D																												
13	OR13S																												
14	OR14D																												
15	OR14S																												
16	OR18																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/24/23	1639							
					10/24/23	1639	5.3	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/23

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.

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	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	OR19																											
2	OR20		WT	G	10/24/23	1248		11	X	X	X																	
3	P01I																											
4	P01L																											
5	P01S																											
6	P02S																											
7	P04S																											
8	P05D																											
9	P05L																											
10	P05S																											
11	P36D																											
12	P36L																											
13	P36S																											
14	P37D																											
15	P37L																											
16	P38L																											

ADDITIONAL COMMENTS	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-23Q4 Rev 0		10/24/23	1639							
					10/24/23	1639	5.3	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/24/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

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	XTPW02																													
2	Field Blank																													
3	Equipment Blank #	WT	G	10/24/23	1530		11	X	X	X																				
4	DR-11 FD	WT	G	10/24/23	1129		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			
DC-23Q4 Rev 0		10/24/23	1634							
					10/24/23	1639	5.7	Y	N	Y

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Aaron Rembecher				
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	10/24/23		
			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Confidential

GJ04588
SB

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 of 10

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	L103																										
2	OM01																										
3	OM04S	WT	G	10/25/23	1015		11	X	X	X																	
4	OM05S				↓																						
5	OM07																										
6	OM08																										
7	OM09																										
8	OM10																										
9	OM12																										
10	OM15																										
11	OM16																										
12	OM17																										
13	OM21	WT	G	10/25/23	1538		11	X	X	X																	
14	OM22D																										
15	OM22S																										
16	OM23D																										

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-23Q4 Rev 0		10/25/23	1656							
					10/25/23	1656	6.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rembelson

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/25/23

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

ATTACHEMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
DUCK CREEK POWER PLANT, GYPSUM MANAGEMENT FACILITY POND
DC-845-205

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 of 10

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-267-203	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	OM23S																												
2	OM24D																												
3	OM25D																												
4	OM25S																												
5	OR02																												
6	OR03D																												
7	OR03S																												
8	OR04D	WT	G	10/25/23	1137		11	X	X	X																			
9	OR05D																												
10	OR06A																												
11	OR11																												
12	OR13D																												
13	OR13S																												
14	OR14D	WT	G	10/25/23	1420		11	X	X	X																			
15	OR14S																												
16	OR18																												

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-23Q4 Rev 0		10/25/23	1656							
					10/25/23	1656	6.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Rumberger

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/25/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	OR19	WT	G	10/25/23	1300		11	X	X	X																				
2	OR20																													
3	P01I																													
4	P01L																													
5	P01S																													
6	P02S																													
7	P04S																													
8	P05D																													
9	P05L																													
10	P05S																													
11	P36D																													
12	P36L																													
13	P36S																													
14	P37D																													
15	P37L																													
16	P38L																													

ADDITIONAL COMMENTS	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-23Q4 Rev 0		10/25/23	1656		10/25/23	1656	6.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/25/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 of 10

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	DC-257-203	DC-257-204	DC-257-205	DC-811-204	DC-845-201-202	DC-845-203	DC-845-205	DC-CLOSURE-201-202	DC-SUP-000	DC-WPCP-203-206	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	XTPW02																										
2	Field Blank																										
3	Equipment Blank 5	WT	G	10/25/23	1553		11	X	X	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-23Q4 Rev 0		10/25/23	1656							
					10/25/23	1656	6.0	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Richardson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/25/23

Confidential

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

GJ041862 SATB

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	G07L																												
2	G08L																												
3	G09L																												
4	G12L																												
5	G12S																												
6	G14L																												
7	G15L																												
8	G15S																												
9	G16L																												
10	G50L																												
11	G50S																												
12	G51L																												
13	G51S	WT	G	10/26/23	1155		5	2	3	3																			
14	G52L																												
15	G52S																												
16	G53L																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	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: LOGAN ROSS

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/26/23

Confidential

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 GJ048627 SAB

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	G62L	WT	G	10/26/23	1531		5	2	3	3																				
2	G63L	WT	G	10/26/23	1435		2	1	+	1																				
3	G63S																													
4	G64L	WT	G	10/26/23	1353		5	2	3	3																				
5	G64S	WT	G	10/26/23	1338		5	2	3	3																				
6	G65L																													
7	G65S																													
8	G66L																													
9	G66S																													
10	G67L																													
11	G67S																													
12	G70L																													
13	G71L																													
14	G71S																													
15	G72L																													
16	G73L																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DC-23Q4 Rev 0		10/26/23	1645			
					10/27/23	715

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Logan Ross

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 10/26/23

Confidential

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 GJ048G2 SAB

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	L103																													
2	OM01																													
3	OM04S																													
4	OM05S																													
5	OM07	WT	G	10/26/23	1204		11	X	X	X																				
6	OM08																													
7	OM09																													
8	OM10																													
9	OM12	WT	G	10/26/23	1045		11	X	X	X																				
10	OM15																													
11	OM16																													
12	OM17																													
13	OM21																													
14	OM22D																													
15	OM22S																													
16	OM23D																													

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-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	4	N	4

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Greenberg
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 10/26/23

Confidential

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 6 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

GJ048662 SAB

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	OM23S																												
2	OM24D																												
3	OM25D																												
4	OM25S																												
5	OR02																												
6	OR03D																												
7	OR03S																												
8	OR04D																												
9	OR05D																												
10	OR06A	WT	G	10/26/23	1440		11	X	X	X																			
11	OR11																												
12	OR13D	WT	G	10/26/23	1323		11	X	X	X																			
13	OR13S																												
14	OR14D																												
15	OR14S																												
16	OR18																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	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: Jordan Cumberson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/26/23

Confidential

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 6JC4862 SAB

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	XTPW02	WT	G	10/26/23	1525		C																					
2	Field Blank																											
3	EB-6* ~~Equipment Blank 7~~	WT	G	10/26/23	1458		11	X	X	X																		
4	*6632 FD	WT	G	10/26/23	1435		2	1	X	X																		
5	EB-7 ~~Equipment Blank 8~~	WT	G	10/26/23	1525		5	X		X																		
6																												
7	* 10/26/23 dab																											
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-23Q4 Rev 0		10/26/23	1645							
					10/27/23	715	2.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daryl Tomlinson

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/26/23

Confidential

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

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	G53S																													
2	G54L	WT	G	10/27/23	1338		5	X		X																				
3	G54S	WT	G	10/27/23	1154		5	X		X																				
4	G55L																													
5	G55S																													
6	G56L																													
7	G56S																													
8	G57L	WT	G	10/27/23	1402		2	X		X																				
9	G57S																													
10	G58L	WT	G	10/27/23	1437		2	X		X																				
11	G58S																													
12	G59L	WT	G	10/27/23	1512		2	X		X																				
13	G59S																													
14	G60L																													
15	G60S																													
16	G61S																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1640							
					10/27/23	1649	4.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE				
PRINT Name of SAMPLER:	Aaron Pemberton			
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	10/27/23	
			Temp in °C	Received on Ice (Y/N)

Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

Attention:	Brian Voelker
Company Name:	Vistra Corp
Address:	see Section A
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-SUP-000	DC-WPCP-203-206			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	L103																												
2	OM01	WT	G	10/27/23	1340		6	X	X	X																			
3	OM04S																												
4	OM05S																												
5	OM07																												
6	OM08																												
7	OM09																												
8	OM10																												
9	OM12																												
10	OM15																												
11	OM16																												
12	OM17																												
13	OM21																												
14	OM22D																												
15	OM22S																												
16	OM23D																												

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1624							
					10/27/23	1649	8.0	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 Rosenbarton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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	OM23S																												
2	OM24D																												
3	OM25D																												
4	OM25S																												
5	OR02	WT	6	10/27/23	1330		11	X	X	X																			
6	OR03D																												
7	OR03S																												
8	OR04D																												
9	OR05D																												
10	OR06A																												
11	OR11																												
12	OR13D																												
13	OR13S																												
14	OR14D																												
15	OR14S																												
16	OR18																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/27/23	1644							
					10/27/23	1649	8.0	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: Damon Pemberton

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/27/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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

Section B Required Project Information:

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

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes

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

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	XTPW02																											
2	Field Blank																											
3	ONOI FD	WT	G	10/27/23	1340		6	X	X	X																		
4	~~Equipment Blank 9~~ EB-3	WT	G	10/27/23	1543		11	X	X	X																		
5	~~Equipment Blank 10~~ EB-9	WT	G	10/27/23	1540		5	X		X																		
6																												
7	* 10/27/23 Lab																											
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-23Q4 Rev 0		10/27/23	1644		10/27/23	1644	8.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Lemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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	G53S																												
2	G54L																												
3	G54S																												
4	G55L																												
5	G55S																												
6	G56L																												
7	G56S																												
8	G57L																												
9	G57S																												
10	G58L																												
11	G58S																												
12	G59L																												
13	G59S																												
14	G60L																												
15	G60S	WT	G	10/31/23	1027		5	X		X																			
16	G61S																												

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-23Q4 Rev 0		10/31/23	1525							
					10/31/23	1525	6.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Chamberlain
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

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	P57S																												
2	P60																												
3	P61																												
4	P62																												
5	P63																												
6	P64																												
7	R10L																												
8	R11L																												
9	R13L																												
10	R61L	WT	G	10/31/23	1140		5	X		X																			
11	R72S																												
12	T43L																												
13	T44L																												
14	T45L																												
15	T46L																												
16	X301																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
DC-23Q4 Rev 0		10/31/23	1525		10/31/23	1525	6.0	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 Remkiewicz

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 10 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:
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	XTPW02																										
2	Field Blank																										
3	~~Equipment Blank~~ FB	WT	G	10/31/23	1427		6	X		X																	
4	FB-11 10/31/23 dcb																										
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-23Q4 Rev 0		10/31/23	1525							
					10/31/23	1525	6.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/31/23

ATTACHMENT C
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND
QUARTER 4, 2023

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G54L	PMP	E003	Antimony, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.003	0.003
G54L	PMP	E003	Arsenic, total	mg/L	04/14/21 - 10/27/23	11	0	CB around linear reg	-0.00524	0.00920
G54L	PMP	E003	Barium, total	mg/L	04/14/21 - 10/27/23	11	0	CI around mean	0.159	0.280
G54L	PMP	E003	Beryllium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.001
G54L	PMP	E003	Boron, total	mg/L	04/14/21 - 10/27/23	12	0	CI around geomean	0.0186	0.210
G54L	PMP	E003	Cadmium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.001
G54L	PMP	E003	Chloride, total	mg/L	04/14/21 - 10/27/23	12	0	CB around T-S line	4.53	17.0
G54L	PMP	E003	Chromium, total	mg/L	04/14/21 - 10/27/23	11	91	CI around median	0.004	0.00590
G54L	PMP	E003	Cobalt, total	mg/L	04/14/21 - 10/27/23	11	46	CI around median	0.002	0.002
G54L	PMP	E003	Fluoride, total	mg/L	04/14/21 - 10/27/23	12	83	CI around median	0.25	0.498
G54L	PMP	E003	Lead, total	mg/L	04/14/21 - 10/27/23	11	85	Most recent sample	0.001	0.0150
G54L	PMP	E003	Lithium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.02	0.02
G54L	PMP	E003	Mercury, total	mg/L	04/14/21 - 10/27/23	11	91	CI around median	0.0002	0.000980
G54L	PMP	E003	Molybdenum, total	mg/L	04/14/21 - 10/27/23	11	54	CI around median	0.001	0.00230
G54L	PMP	E003	pH (field)	SU	04/14/21 - 10/27/23	18	0	CI around median	6.5/6.6	6.6/7.4
G54L	PMP	E003	Radium 226 + Radium 228, total	pCi/L	04/14/21 - 10/27/23	11	0	CI around mean	0.32	2.00
G54L	PMP	E003	Selenium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.00120
G54L	PMP	E003	Sulfate, total	mg/L	04/14/21 - 10/27/23	12	0	CI around mean	68	55.0
G54L	PMP	E003	Thallium, total	mg/L	04/14/21 - 10/27/23	11	100	All ND - Last	0.001	0.001
G54L	PMP	E003	Total Dissolved Solids	mg/L	04/14/21 - 10/27/23	18	0	CI around mean	708	483
G54S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.003	0.003
G54S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/27/23	11	25	CI around median	0.001	0.00920
G54S	UA	E003	Barium, total	mg/L	12/04/15 - 10/27/23	11	0	CI around mean	0.21	0.280
G54S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.001
G54S	UA	E003	Boron, total	mg/L	12/04/15 - 10/27/23	25	0	CI around mean	0.0326	0.210
G54S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.001
G54S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/27/23	23	8	CI around geomean	2.03	17.0

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DUCK CREEK POWER PLANT
GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G54S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.004	0.00590
G54S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.002	0.002
G54S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/27/23	24	76	CI around median	0.25	0.498
G54S	UA	E003	Lead, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.0150
G54S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/27/23	11	73	CI around median	0.01	0.02
G54S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/27/23	11	83	CI around median	0.0002	0.000980
G54S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/27/23	11	0	CI around mean	0.00147	0.00230
G54S	UA	E003	pH (field)	SU	12/04/15 - 10/27/23	32	0	CB around linear reg	6.5/6.9	6.6/7.4
G54S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/27/23	11	0	CI around geomean	0.612	2.00
G54S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.00120
G54S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/27/23	23	0	CB around T-S line	31.9	55.0
G54S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/27/23	11	100	All ND - Last	0.001	0.001
G54S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/27/23	31	0	CI around mean	518	483
G57S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/20/23	11	92	CI around median	0.003	0.003
G57S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/20/23	11	90	Most recent sample	0.001	0.00920
G57S	UA	E003	Barium, total	mg/L	12/04/15 - 10/20/23	11	0	CI around median	0.13	0.280
G57S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/20/23	11	92	CI around median	0.001	0.001
G57S	UA	E003	Boron, total	mg/L	12/04/15 - 10/20/23	24	42	CI around median	0.01	0.210
G57S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/20/23	11	91	CI around median	0.001	0.001
G57S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/20/23	24	2	CI around median	18	17.0
G57S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/20/23	11	92	Most recent sample	0.004	0.00590
G57S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/20/23	11	92	Most recent sample	0.002	0.002
G57S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/20/23	25	35	CI around median	0.25	0.498
G57S	UA	E003	Lead, total	mg/L	12/04/15 - 10/20/23	11	75	CI around median	0.001	0.0150
G57S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/20/23	11	100	All ND - Last	0.02	0.02
G57S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/20/23	11	100	All ND - Last	0.0002	0.000980
G57S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/20/23	11	91	CI around median	0.001	0.00230

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GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G57S	UA	E003	pH (field)	SU	12/04/15 - 10/20/23	31	0	CB around linear reg	6.5/6.8	6.6/7.4
G57S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/20/23	11	0	CI around mean	0.179	2.00
G57S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/20/23	11	92	Most recent sample	0.001	0.00120
G57S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/20/23	23	0	CB around linear reg	46.2	55.0
G57S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/20/23	11	92	CI around median	0.001	0.001
G57S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/20/23	31	0	CB around linear reg	773	483
G60L	PMP	E003	Antimony, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.003	0.003
G60L	PMP	E003	Arsenic, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.00920
G60L	PMP	E003	Barium, total	mg/L	04/14/21 - 10/23/23	11	0	CI around mean	0.0159	0.280
G60L	PMP	E003	Beryllium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.001
G60L	PMP	E003	Boron, total	mg/L	04/14/21 - 10/23/23	12	0	CI around median	0.025	0.210
G60L	PMP	E003	Cadmium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.001
G60L	PMP	E003	Chloride, total	mg/L	04/14/21 - 10/23/23	12	0	CB around linear reg	7.63	17.0
G60L	PMP	E003	Chromium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.004	0.00590
G60L	PMP	E003	Cobalt, total	mg/L	04/14/21 - 10/23/23	11	18	CI around mean	0.00249	0.002
G60L	PMP	E003	Fluoride, total	mg/L	04/14/21 - 10/23/23	12	100	All ND - Last	0.25	0.498
G60L	PMP	E003	Lead, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.0150
G60L	PMP	E003	Lithium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.02	0.02
G60L	PMP	E003	Mercury, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.0002	0.000980
G60L	PMP	E003	Molybdenum, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.00230
G60L	PMP	E003	pH (field)	SU	04/14/21 - 10/23/23	18	0	CI around mean	6.0/6.2	6.6/7.4
G60L	PMP	E003	Radium 226 + Radium 228, total	pCi/L	04/14/21 - 10/23/23	11	0	CI around mean	0.164	2.00
G60L	PMP	E003	Selenium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.00120
G60L	PMP	E003	Sulfate, total	mg/L	04/14/21 - 10/23/23	12	8	CI around mean	153	55.0
G60L	PMP	E003	Thallium, total	mg/L	04/14/21 - 10/23/23	11	100	All ND - Last	0.001	0.001
G60L	PMP	E003	Total Dissolved Solids	mg/L	04/14/21 - 10/23/23	18	0	CI around mean	549	483
G60S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.003	0.003

ATTACHMENT C.
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GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G60S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/31/23	11	16	CI around geomean	0.00132	0.00920
G60S	UA	E003	Barium, total	mg/L	12/04/15 - 10/31/23	11	0	CI around mean	0.137	0.280
G60S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.001	0.001
G60S	UA	E003	Boron, total	mg/L	12/04/15 - 10/31/23	26	9	CB around T-S line	0.024	0.210
G60S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.001	0.001
G60S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/31/23	24	2	CI around geomean	7.96	17.0
G60S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/31/23	11	54	CI around median	0.004	0.00590
G60S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/31/23	11	82	CI around median	0.002	0.002
G60S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/31/23	25	44	CI around median	0.25	0.498
G60S	UA	E003	Lead, total	mg/L	12/04/15 - 10/31/23	11	32	CI around median	0.001	0.0150
G60S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/31/23	11	82	CI around median	0.01	0.02
G60S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.0002	0.000980
G60S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/31/23	11	54	CI around median	0.001	0.00230
G60S	UA	E003	pH (field)	SU	12/04/15 - 10/31/23	32	0	CI around mean	6.7/6.8	6.6/7.4
G60S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/31/23	11	0	CI around mean	0.836	2.00
G60S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/31/23	11	82	CI around median	0.001	0.00120
G60S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/31/23	25	0	CB around T-S line	70.2	55.0
G60S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/31/23	11	100	All ND - Last	0.001	0.001
G60S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/31/23	32	0	CI around median	550	483
G64L	PMP	E003	Antimony, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.003	0.003
G64L	PMP	E003	Arsenic, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.001	0.00920
G64L	PMP	E003	Barium, total	mg/L	05/15/23 - 10/26/23	3	0	Most recent sample	0.089	0.280
G64L	PMP	E003	Beryllium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.001
G64L	PMP	E003	Boron, total	mg/L	01/11/23 - 10/26/23	4	20	CI around mean	-0.00458	0.210
G64L	PMP	E003	Cadmium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.001
G64L	PMP	E003	Chloride, total	mg/L	01/11/23 - 10/26/23	4	10	CI around mean	1.37	17.0
G64L	PMP	E003	Chromium, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.004	0.00590

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GMF POND
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Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G64L	PMP	E003	Cobalt, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.002	0.002
G64L	PMP	E003	Fluoride, total	mg/L	01/11/23 - 10/26/23	4	50	CI around mean	0.126	0.498
G64L	PMP	E003	Lead, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.001	0.0150
G64L	PMP	E003	Lithium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.02	0.02
G64L	PMP	E003	Mercury, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.0002	0.000980
G64L	PMP	E003	Molybdenum, total	mg/L	05/15/23 - 10/26/23	3	33	Most recent sample	0.001	0.00230
G64L	PMP	E003	pH (field)	SU	05/21/21 - 10/26/23	11	0	CI around median	6.8/7.0	6.6/7.4
G64L	PMP	E003	Radium 226 + Radium 228, total	pCi/L	05/15/23 - 10/26/23	3	0	Most recent sample	0.812	2.00
G64L	PMP	E003	Selenium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.00120
G64L	PMP	E003	Sulfate, total	mg/L	01/11/23 - 10/26/23	4	0	CI around mean	11.1	55.0
G64L	PMP	E003	Thallium, total	mg/L	05/15/23 - 10/26/23	3	100	All ND - Last	0.001	0.001
G64L	PMP	E003	Total Dissolved Solids	mg/L	05/21/21 - 10/26/23	11	0	CI around mean	554	483
G64S	UA	E003	Antimony, total	mg/L	12/04/15 - 10/26/23	11	92	CI around median	0.003	0.003
G64S	UA	E003	Arsenic, total	mg/L	12/04/15 - 10/26/23	11	10	CI around mean	0.00136	0.00920
G64S	UA	E003	Barium, total	mg/L	12/04/15 - 10/26/23	11	0	CI around mean	0.16	0.280
G64S	UA	E003	Beryllium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.001	0.001
G64S	UA	E003	Boron, total	mg/L	12/04/15 - 10/26/23	24	3	CI around geomean	0.0146	0.210
G64S	UA	E003	Cadmium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.001	0.001
G64S	UA	E003	Chloride, total	mg/L	12/04/15 - 10/26/23	23	2	CI around median	3.4	17.0
G64S	UA	E003	Chromium, total	mg/L	12/04/15 - 10/26/23	11	92	CI around median	0.004	0.00590
G64S	UA	E003	Cobalt, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.002	0.002
G64S	UA	E003	Fluoride, total	mg/L	12/04/15 - 10/26/23	25	15	CI around mean	0.295	0.498
G64S	UA	E003	Lead, total	mg/L	12/04/15 - 10/26/23	11	40	CI around median	0.001	0.0150
G64S	UA	E003	Lithium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.02	0.02
G64S	UA	E003	Mercury, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.0002	0.000980
G64S	UA	E003	Molybdenum, total	mg/L	12/04/15 - 10/26/23	11	18	CI around mean	0.00117	0.00230
G64S	UA	E003	pH (field)	SU	12/04/15 - 10/26/23	32	0	CI around median	6.8/7.0	6.6/7.4

ATTACHMENT C.
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GMF POND
CANTON, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G64S	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/04/15 - 10/26/23	11	0	CI around mean	0.543	2.00
G64S	UA	E003	Selenium, total	mg/L	12/04/15 - 10/26/23	11	92	CI around median	0.001	0.00120
G64S	UA	E003	Sulfate, total	mg/L	12/04/15 - 10/26/23	23	0	CI around mean	24	55.0
G64S	UA	E003	Thallium, total	mg/L	12/04/15 - 10/26/23	11	100	All ND - Last	0.001	0.001
G64S	UA	E003	Total Dissolved Solids	mg/L	12/04/15 - 10/26/23	30	0	CI around median	420	483

Notes:
Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value
HSU = hydrostratigraphic unit:

PMP = Potential Migration Pathway

UA = Uppermost Aquifer

mg/L = milligrams per liter
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown

CB around T-S line = Confidence band around Thiel-Sen line

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
For pH, the values presented are the lower / upper limits of the background determination