Luminant

Dynegy Midwest Generation, LLC
1500 Eastport Plaza Drive
Collinsville, IL 62234

March 9, 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: Vermilion Power Plant New East Ash Pond; IEPA ID # W1838000002-04

Dear Mr. LeCrone:

In accordance with Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.610(b)(3)(D), Dynegy Midwest Generation, LLC is submitting groundwater monitoring data for the Quarter 4, 2023 sampling event at the Vermilion Power Plant New East Ash Pond, identified by Illinois Environmental Protection Agency (IEPA) ID No. W1838000002-04. 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. 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 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 December 1, 2023 for the exceedances of the GWPS detected during the Quarter 2, 2023 sampling event. The IEPA provided a written response on December 28, 2023 that did not concur with the ASD. Therefore, a Corrective Measures Assessment (CMA) was initiated on December 31, 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, New East Ash Pond (NEAP), Vermilion Power Plant, Oakwood, Illinois

RAMBOLL

ENVIRONMENT
& HEALTH

35 I.A.C. § 845.610(b)(3)(D)
GROUNDWATER MONITORING DATA AND DETECTED EXCEEDANCES
QUARTER 3, 2023
NEW EAST ASH POND (NEAP), VERMILION POWER PLANT, OAKWOOD, ILLINOIS

March 9, 2024

Samples were collected on November 28-29, 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 9, 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. **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. Monitoring well 71S had insufficient water to sample for this sampling event. Monitoring well 71D purged dry during sample collection and samples for radium analysis were not collected. Monitoring wells 16B and 35S were dry; therefore, groundwater elevation data were not recorded and groundwater samples were not collected for this 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 December 1, 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 28, 2023[3] that did not concur with the ASD. Therefore, a Corrective Measures Assessment (CMA) was initiated on December 31, 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

[1] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. Groundwater Monitoring Plan. New East Ash Pond. Vermilion Power Plant. Oakwood, Illinois. October 25, 2021.

[2] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023. *35 I.A.C. § 845.650(E): Alternative Source Demonstration, New East Ash Pond, Oakwood, Illinois, IEPA ID: W1838000002-04*. December 1, 2023.

[3] Illinois Environmental Protection Agency (IEPA), 2023. *Letter from Michael Summers (IEPA) to Dianna Tickner (Dynegy Midwest Generation, LLC): Re: Vermilion Power Plant New East Ash Pond – W1838000002-4, Alternative Soruce Demonstration Submittal*. December 28, 2023.

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.

TABLES

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

ATTACHMENTS

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
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
10	Background	E003	11/28/2023	Antimony, total	0.0013 U	mg/L
10	Background	E003	11/28/2023	Arsenic, total	0.00150	mg/L
10	Background	E003	11/28/2023	Barium, total	0.110	mg/L
10	Background	E003	11/28/2023	Beryllium, total	0.00053 U	mg/L
10	Background	E003	11/28/2023	Boron, total	0.0590 J+	mg/L
10	Background	E003	11/28/2023	Cadmium, total	0.00028 J	mg/L
10	Background	E003	11/28/2023	Calcium, total	160	mg/L
10	Background	E003	11/28/2023	Chloride, total	4.60	mg/L
10	Background	E003	11/28/2023	Chromium, total	0.0014 J	mg/L
10	Background	E003	11/28/2023	Cobalt, total	0.0880	mg/L
10	Background	E003	11/28/2023	Dissolved Oxygen	2.99	mg/L
10	Background	E003	11/28/2023	Fluoride, total	0.150	mg/L
10	Background	E003	11/28/2023	Lead, total	0.000570	mg/L
10	Background	E003	11/28/2023	Lithium, total	0.0140	mg/L
10	Background	E003	11/28/2023	Mercury, total	0.000079 U	mg/L
10	Background	E003	11/28/2023	Molybdenum, total	0.0032 J	mg/L
10	Background	E003	11/28/2023	Oxidation Reduction Potential	143	mV
10	Background	E003	11/28/2023	pH (field)	7.0	SU
10	Background	E003	11/28/2023	Radium 226 + Radium 228, total	2.07	pCi/L
10	Background	E003	11/28/2023	Selenium, total	0.003 UJ	mg/L
10	Background	E003	11/28/2023	Specific Conductance @ 25C (field)	1,243	micromhos/cm
10	Background	E003	11/28/2023	Sulfate, total	230	mg/L
10	Background	E003	11/28/2023	Temperature	9.76	degrees C
10	Background	E003	11/28/2023	Thallium, total	0.00057 U	mg/L
10	Background	E003	11/28/2023	Total Dissolved Solids	890	mg/L
10	Background	E003	11/28/2023	Turbidity, field	15.5	NTU
22	Background	E003	11/28/2023	Antimony, total	0.0013 U	mg/L
22	Background	E003	11/28/2023	Arsenic, total	0.00034 J	mg/L
22	Background	E003	11/28/2023	Barium, total	0.0840	mg/L
22	Background	E003	11/28/2023	Beryllium, total	0.00053 U	mg/L
22	Background	E003	11/28/2023	Boron, total	0.340 J+	mg/L
22	Background	E003	11/28/2023	Cadmium, total	0.00017 U	mg/L
22	Background	E003	11/28/2023	Calcium, total	44.0	mg/L
22	Background	E003	11/28/2023	Chloride, total	6.40	mg/L
22	Background	E003	11/28/2023	Chromium, total	0.0011 U	mg/L
22	Background	E003	11/28/2023	Cobalt, total	0.0004 U	mg/L
22	Background	E003	11/28/2023	Dissolved Oxygen	0.770	mg/L
22	Background	E003	11/28/2023	Fluoride, total	0.360	mg/L
22	Background	E003	11/28/2023	Lead, total	0.000530	mg/L
22	Background	E003	11/28/2023	Lithium, total	0.0340	mg/L
22	Background	E003	11/28/2023	Mercury, total	0.0002 U	mg/L
22	Background	E003	11/28/2023	Molybdenum, total	0.0025 U	mg/L
22	Background	E003	11/28/2023	Oxidation Reduction Potential	-7.90	mV
22	Background	E003	11/28/2023	pH (field)	7.5	SU
22	Background	E003	11/28/2023	Radium 226 + Radium 228, total	0.87	pCi/L
22	Background	E003	11/28/2023	Selenium, total	0.003 UJ	mg/L

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VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
22	Background	E003	11/28/2023	Specific Conductance @ 25C (field)	790	micromhos/cm
22	Background	E003	11/28/2023	Sulfate, total	26.0	mg/L
22	Background	E003	11/28/2023	Temperature	11.4	degrees C
22	Background	E003	11/28/2023	Thallium, total	0.00057 U	mg/L
22	Background	E003	11/28/2023	Total Dissolved Solids	490	mg/L
22	Background	E003	11/28/2023	Turbidity, field	3.94	NTU
16A	Compliance	E003	11/29/2023	Antimony, total	0.0013 U	mg/L
16A	Compliance	E003	11/29/2023	Arsenic, total	0.00130	mg/L
16A	Compliance	E003	11/29/2023	Barium, total	0.330	mg/L
16A	Compliance	E003	11/29/2023	Beryllium, total	0.00053 U	mg/L
16A	Compliance	E003	11/29/2023	Boron, total	0.760	mg/L
16A	Compliance	E003	11/29/2023	Cadmium, total	0.00017 U	mg/L
16A	Compliance	E003	11/29/2023	Calcium, total	37.0	mg/L
16A	Compliance	E003	11/29/2023	Chloride, total	160	mg/L
16A	Compliance	E003	11/29/2023	Chromium, total	0.0011 U	mg/L
16A	Compliance	E003	11/29/2023	Cobalt, total	0.0004 U	mg/L
16A	Compliance	E003	11/29/2023	Dissolved Oxygen	0.440	mg/L
16A	Compliance	E003	11/29/2023	Fluoride, total	0.820	mg/L
16A	Compliance	E003	11/29/2023	Lead, total	0.00034 J	mg/L
16A	Compliance	E003	11/29/2023	Lithium, total	0.0330	mg/L
16A	Compliance	E003	11/29/2023	Mercury, total	0.000079 U	mg/L
16A	Compliance	E003	11/29/2023	Molybdenum, total	0.0025 U	mg/L
16A	Compliance	E003	11/29/2023	Oxidation Reduction Potential	-122	mV
16A	Compliance	E003	11/29/2023	pH (field)	7.7	SU
16A	Compliance	E003	11/29/2023	Radium 226 + Radium 228, total	1.13	pCi/L
16A	Compliance	E003	11/29/2023	Selenium, total	0.003 UJ	mg/L
16A	Compliance	E003	11/29/2023	Specific Conductance @ 25C (field)	1,314	micromhos/cm
16A	Compliance	E003	11/29/2023	Sulfate, total	4.10	mg/L
16A	Compliance	E003	11/29/2023	Temperature	10.9	degrees C
16A	Compliance	E003	11/29/2023	Thallium, total	0.00057 U	mg/L
16A	Compliance	E003	11/29/2023	Total Dissolved Solids	770	mg/L
16A	Compliance	E003	11/29/2023	Turbidity, field	4.09	NTU
35D	Compliance	E003	11/29/2023	Antimony, total	0.0013 U	mg/L
35D	Compliance	E003	11/29/2023	Arsenic, total	0.00330	mg/L
35D	Compliance	E003	11/29/2023	Barium, total	0.0290	mg/L
35D	Compliance	E003	11/29/2023	Beryllium, total	0.00053 U	mg/L
35D	Compliance	E003	11/29/2023	Boron, total	2.40	mg/L
35D	Compliance	E003	11/29/2023	Cadmium, total	0.00017 U	mg/L
35D	Compliance	E003	11/29/2023	Calcium, total	120	mg/L
35D	Compliance	E003	11/29/2023	Chloride, total	470	mg/L
35D	Compliance	E003	11/29/2023	Chromium, total	0.0011 U	mg/L
35D	Compliance	E003	11/29/2023	Cobalt, total	0.0006 J	mg/L
35D	Compliance	E003	11/29/2023	Dissolved Oxygen	0.460	mg/L
35D	Compliance	E003	11/29/2023	Fluoride, total	0.650	mg/L
35D	Compliance	E003	11/29/2023	Lead, total	0.00019 U	mg/L
35D	Compliance	E003	11/29/2023	Lithium, total	0.160	mg/L

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VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
35D	Compliance	E003	11/29/2023	Mercury, total	0.000079 U	mg/L
35D	Compliance	E003	11/29/2023	Molybdenum, total	0.0044 J	mg/L
35D	Compliance	E003	11/29/2023	Oxidation Reduction Potential	-127	mV
35D	Compliance	E003	11/29/2023	pH (field)	7.3	SU
35D	Compliance	E003	11/29/2023	Radium 226 + Radium 228, total	0.468	pCi/L
35D	Compliance	E003	11/29/2023	Selenium, total	0.003 UJ	mg/L
35D	Compliance	E003	11/29/2023	Specific Conductance @ 25C (field)	5,487	micromhos/cm
35D	Compliance	E003	11/29/2023	Sulfate, total	1,700	mg/L
35D	Compliance	E003	11/29/2023	Temperature	10.1	degrees C
35D	Compliance	E003	11/29/2023	Thallium, total	0.00057 U	mg/L
35D	Compliance	E003	11/29/2023	Total Dissolved Solids	4,300	mg/L
35D	Compliance	E003	11/29/2023	Turbidity, field	6.99	NTU
70S	Compliance	E003	11/29/2023	Antimony, total	0.0013 U	mg/L
70S	Compliance	E003	11/29/2023	Arsenic, total	0.00049 J	mg/L
70S	Compliance	E003	11/29/2023	Barium, total	0.0200	mg/L
70S	Compliance	E003	11/29/2023	Beryllium, total	0.00053 U	mg/L
70S	Compliance	E003	11/29/2023	Boron, total	0.630 J+	mg/L
70S	Compliance	E003	11/29/2023	Cadmium, total	0.00017 U	mg/L
70S	Compliance	E003	11/29/2023	Calcium, total	220	mg/L
70S	Compliance	E003	11/29/2023	Chloride, total	20.0	mg/L
70S	Compliance	E003	11/29/2023	Chromium, total	0.0011 U	mg/L
70S	Compliance	E003	11/29/2023	Cobalt, total	0.0005 J	mg/L
70S	Compliance	E003	11/29/2023	Dissolved Oxygen	0.0700	mg/L
70S	Compliance	E003	11/29/2023	Fluoride, total	0.170	mg/L
70S	Compliance	E003	11/29/2023	Lead, total	0.00019 U	mg/L
70S	Compliance	E003	11/29/2023	Lithium, total	0.0220 J+	mg/L
70S	Compliance	E003	11/29/2023	Mercury, total	0.000079 U	mg/L
70S	Compliance	E003	11/29/2023	Molybdenum, total	0.0049 J	mg/L
70S	Compliance	E003	11/29/2023	Oxidation Reduction Potential	-39.2	mV
70S	Compliance	E003	11/29/2023	pH (field)	7.2	SU
70S	Compliance	E003	11/29/2023	Radium 226 + Radium 228, total	0.455	pCi/L
70S	Compliance	E003	11/29/2023	Selenium, total	0.003 UJ	mg/L
70S	Compliance	E003	11/29/2023	Specific Conductance @ 25C (field)	1,545	micromhos/cm
70S	Compliance	E003	11/29/2023	Sulfate, total	670	mg/L
70S	Compliance	E003	11/29/2023	Temperature	12.3	degrees C
70S	Compliance	E003	11/29/2023	Thallium, total	0.00057 U	mg/L
70S	Compliance	E003	11/29/2023	Total Dissolved Solids	1,500	mg/L
70S	Compliance	E003	11/29/2023	Turbidity, field	2.88	NTU
70D	Compliance	E003	11/29/2023	Antimony, total	0.0013 U	mg/L
70D	Compliance	E003	11/29/2023	Arsenic, total	0.00061 J	mg/L
70D	Compliance	E003	11/29/2023	Barium, total	0.420	mg/L
70D	Compliance	E003	11/29/2023	Beryllium, total	0.00053 U	mg/L
70D	Compliance	E003	11/29/2023	Boron, total	1.40	mg/L
70D	Compliance	E003	11/29/2023	Cadmium, total	0.00017 U	mg/L
70D	Compliance	E003	11/29/2023	Calcium, total	84.0	mg/L
70D	Compliance	E003	11/29/2023	Chloride, total	550	mg/L

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845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
70D	Compliance	E003	11/29/2023	Chromium, total	0.0016 J	mg/L
70D	Compliance	E003	11/29/2023	Cobalt, total	0.00120	mg/L
70D	Compliance	E003	11/29/2023	Dissolved Oxygen	2.67	mg/L
70D	Compliance	E003	11/29/2023	Fluoride, total	0.430	mg/L
70D	Compliance	E003	11/29/2023	Lead, total	0.000980	mg/L
70D	Compliance	E003	11/29/2023	Lithium, total	0.110	mg/L
70D	Compliance	E003	11/29/2023	Mercury, total	0.000079 U	mg/L
70D	Compliance	E003	11/29/2023	Molybdenum, total	0.0025 U	mg/L
70D	Compliance	E003	11/29/2023	Oxidation Reduction Potential	-5.70	mV
70D	Compliance	E003	11/29/2023	pH (field)	7.0	SU
70D	Compliance	E003	11/29/2023	Radium 226 + Radium 228, total	0.889	pCi/L
70D	Compliance	E003	11/29/2023	Selenium, total	0.003 UJ	mg/L
70D	Compliance	E003	11/29/2023	Specific Conductance @ 25C (field)	2,858	micromhos/cm
70D	Compliance	E003	11/29/2023	Sulfate, total	47.0	mg/L
70D	Compliance	E003	11/29/2023	Temperature	12.0	degrees C
70D	Compliance	E003	11/29/2023	Thallium, total	0.00057 U	mg/L
70D	Compliance	E003	11/29/2023	Total Dissolved Solids	1,800	mg/L
70D	Compliance	E003	11/29/2023	Turbidity, field	51.4	NTU
71D	Compliance	E003	11/29/2023	Antimony, total	0.0013 U	mg/L
71D	Compliance	E003	11/29/2023	Arsenic, total	0.00037 J	mg/L
71D	Compliance	E003	11/29/2023	Barium, total	0.780	mg/L
71D	Compliance	E003	11/29/2023	Beryllium, total	0.00053 U	mg/L
71D	Compliance	E003	11/29/2023	Boron, total	1.50	mg/L
71D	Compliance	E003	11/29/2023	Cadmium, total	0.00017 U	mg/L
71D	Compliance	E003	11/29/2023	Calcium, total	45.0	mg/L
71D	Compliance	E003	11/29/2023	Chloride, total	800	mg/L
71D	Compliance	E003	11/29/2023	Chromium, total	0.0011 U	mg/L
71D	Compliance	E003	11/29/2023	Cobalt, total	0.00059 J	mg/L
71D	Compliance	E003	11/29/2023	Dissolved Oxygen	0.550	mg/L
71D	Compliance	E003	11/29/2023	Fluoride, total	0.470	mg/L
71D	Compliance	E003	11/29/2023	Lead, total	0.0270	mg/L
71D	Compliance	E003	11/29/2023	Lithium, total	0.110	mg/L
71D	Compliance	E003	11/29/2023	Mercury, total	0.000079 U	mg/L
71D	Compliance	E003	11/29/2023	Molybdenum, total	0.0025 U	mg/L
71D	Compliance	E003	11/29/2023	Oxidation Reduction Potential	43.1	mV
71D	Compliance	E003	11/29/2023	pH (field)	7.1	SU
71D	Compliance	E003	11/29/2023	Selenium, total	0.003 UJ	mg/L
71D	Compliance	E003	11/29/2023	Specific Conductance @ 25C (field)	3,995	micromhos/cm
71D	Compliance	E003	11/29/2023	Sulfate, total	53.0	mg/L
71D	Compliance	E003	11/29/2023	Temperature	11.4	degrees C
71D	Compliance	E003	11/29/2023	Thallium, total	0.00057 U	mg/L
71D	Compliance	E003	11/29/2023	Total Dissolved Solids	2,400	mg/L
71D	Compliance	E003	11/29/2023	Turbidity, field	3.88	NTU

TABLE 1.
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845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

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. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
16A	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	10	90	CI around median	0.001	0.006	Standard	No Exceedance
16A	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	10	0	CI around geomean	0.00114	0.010	Standard	No Exceedance
16A	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	10	0	CI around mean	0.245	2.0	Standard	No Exceedance
16A	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.001	0.004	Standard	No Exceedance
16A	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	10	0	CI around mean	0.688	2	Standard	No Exceedance
16A	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
16A	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	10	0	CI around mean	125	200	Standard	No Exceedance
16A	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.005	0.1	Standard	No Exceedance
16A	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.001	0.0900	Background	No Exceedance
16A	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	10	10	CI around mean	0.647	4.0	Standard	No Exceedance
16A	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
16A	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	10	0	CB around linear reg	0.0277	0.04	Standard	No Exceedance
16A	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
16A	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.005	0.1	Standard	No Exceedance
16A	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	15	0	CI around mean	7.2/7.5	6.3/9.0	Background/Standard	No Exceedance
16A	BCU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	9	0	CI around mean	0.38	7.00	Background	No Exceedance
16A	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
16A	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	15	5	CI around mean	13.3	400	Standard	No Exceedance
16A	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.002	0.002	Standard	No Exceedance
16A	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	15	0	CI around mean	645	1,200	Standard	No Exceedance
35D	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	11	73	CI around median	0.001	0.006	Standard	No Exceedance
35D	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	11	9	CI around mean	0.00178	0.010	Standard	No Exceedance
35D	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around median	0.0261	2.0	Standard	No Exceedance
35D	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
35D	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	1.59	2	Standard	No Exceedance
35D	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
35D	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	288	200	Standard	Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
35D	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	11	73	CI around median	0.0015	0.1	Standard	No Exceedance
35D	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	11	36	CI around median	0.001	0.0900	Background	No Exceedance
35D	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	11	9	CI around mean	0.635	4.0	Standard	No Exceedance
35D	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	11	46	CI around geomean	0.00063	0.0075	Standard	No Exceedance
35D	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.11	0.04	Standard	Exceedance
35D	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
35D	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	11	18	CB around linear reg	-0.00102	0.1	Standard	No Exceedance
35D	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	15	0	CI around median	7.2/7.7	6.3/9.0	Background/Standard	No Exceedance
35D	BCU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	10	0	CI around mean	0.303	7.00	Background	No Exceedance
35D	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
35D	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	16	0	CI around mean	1,080	400	Standard	Exceedance
35D	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.002	0.002	Standard	No Exceedance
35D	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	16	0	CI around mean	2,660	1,200	Standard	Exceedance
70S	UU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance
70S	UU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.010	Standard	No Exceedance
70S	UU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.0165	2.0	Standard	No Exceedance
70S	UU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
70S	UU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.359	2	Standard	No Exceedance
70S	UU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
70S	UU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	13.6	200	Standard	No Exceedance
70S	UU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.005	0.1	Standard	No Exceedance
70S	UU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.0900	Background	No Exceedance
70S	UU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	11	9	CB around T-S line	0.145	4.0	Standard	No Exceedance
70S	UU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
70S	UU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.0116	0.04	Standard	No Exceedance
70S	UU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
70S	UU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	11	18	CI around median	0.005	0.1	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
70S	UU	E003	pH (field)	SU	04/01/21 - 11/29/23	11	0	CI around mean	6.9/7.0	6.3/9.0	Background/Standard	No Exceedance
70S	UU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	10	0	CI around geomean	0.084	7.00	Background	No Exceedance
70S	UU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
70S	UU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	607	400	Standard	Exceedance
70S	UU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.002	0.002	Standard	No Exceedance
70S	UU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	1,240	1,200	Standard	Exceedance
70D	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	11	82	CI around median	0.001	0.006	Standard	No Exceedance
70D	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	11	54	CI around median	0.001	0.010	Standard	No Exceedance
70D	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.438	2.0	Standard	No Exceedance
70D	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	11	73	CI around median	0.001	0.004	Standard	No Exceedance
70D	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	1.12	2	Standard	No Exceedance
70D	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
70D	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	508	200	Standard	Exceedance
70D	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	11	27	CI around geomean	0.00316	0.1	Standard	No Exceedance
70D	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	11	9	CB around linear reg	-0.0449	0.0900	Background	No Exceedance
70D	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	11	9	CB around linear reg	0.213	4.0	Standard	No Exceedance
70D	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	11	18	CI around geomean	0.00131	0.0075	Standard	No Exceedance
70D	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.0737	0.04	Standard	Exceedance
70D	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
70D	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	11	27	CB around linear reg	-0.0237	0.1	Standard	No Exceedance
70D	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	11	0	CI around mean	6.8/7.2	6.3/9.0	Background/Standard	No Exceedance
70D	BCU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	10	0	CI around mean	0.87	7.00	Background	No Exceedance
70D	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	11	82	CI around median	0.001	0.05	Standard	No Exceedance
70D	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	47.4	400	Standard	No Exceedance
70D	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.002	0.002	Standard	No Exceedance
70D	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	11	0	CB around linear reg	1,100	1,200	Standard	No Exceedance
71D	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	6	67	CI around median (Last Sample, n<7)	0.003	0.006	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
71D	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	6	50	CI around mean	-0.0044	0.010	Standard	No Exceedance
71D	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.143	2.0	Standard	No Exceedance
71D	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	6	83	CI around median (Last Sample, n<7)	0.001	0.004	Standard	No Exceedance
71D	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.672	2	Standard	No Exceedance
71D	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	6	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
71D	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	230	200	Standard	Exceedance
71D	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	6	33	CI around geomean	0.000986	0.1	Standard	No Exceedance
71D	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	6	33	CI around geomean	0.000467	0.0900	Background	No Exceedance
71D	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.423	4.0	Standard	No Exceedance
71D	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	6	17	CI around mean	-0.0133	0.0075	Standard	No Exceedance
71D	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.0295	0.04	Standard	No Exceedance
71D	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	6	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
71D	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	6	33	CI around mean	0.00298	0.1	Standard	No Exceedance
71D	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	6	0	CI around mean	6.8/7.5	6.3/9.0	Background/Standard	No Exceedance
71D	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	6	83	CI around median (Last Sample, n<7)	0.0025	0.05	Standard	No Exceedance
71D	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	39.8	400	Standard	No Exceedance
71D	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	6	100	All ND - Last	0.002	0.002	Standard	No Exceedance
71D	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	834	1,200	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Notes:
Compliance Result:

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

Exceedance: The statistical result exceeded the GWPS.

HSU = hydrostratigraphic unit:

BCU = Bedrock Confining Unit

UU = Upper Unit

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

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

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

0 150 300
Feet

MONITORING WELL LOCATION MAP

NEW EAST ASH POND
VERMILION POWER PLANT
OAKWOOD, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\2022\85\MXD\845_Operating_Permit\Vermillion\NAP_OEAP\GMP\gmp_aprx.aprx

PROJECT: 1690000XXXX | DATED: 9/7/2023 | DESIGNER: egreaves

ATTACHMENTS

ATTACHMENT A
SUMMARY OF GROUNDWATER ELEVATION DATA
QUARTER 4, 2023

ATTACHMENT A.
GROUNDWATER ELEVATION DATA - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	Well Type	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
10	Background	11/27/2023	51.31	607.78
16B	Compliance	11/27/2023	Dry	
16A	Compliance	11/27/2023	10.60	569.72
22	Background	11/27/2023	56.62	602.00
35S	Compliance	11/27/2023	Dry	
35D	Compliance	11/27/2023	11.02	573.12
70S	Compliance	11/27/2023	15.60	578.14
70D	Compliance	11/27/2023	40.25	554.27
71S	Compliance	11/27/2023	12.45	567.11
71D	Compliance	11/27/2023	39.73	540.16
NED1	Water Level	11/27/2023	4.82	595.25

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Brian Voelker
Vistra Energy Corp
133 S 4th, Suite 206
Springfield, Illinois 62701

Generated 01/09/24 10:32:55

JOB DESCRIPTION

VER-23Q4
VER_845_912

JOB NUMBER

500-243025-5

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

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Table of Contents

Case Narrative

Client: Vistra Energy Corp
Project: VER-23Q4

Job ID: 500-243025-5

Job ID: 500-243025-5 — Eurofins Chicago

Job Narrative
500-243025-5

Receipt
The samples were received on 11/28/23 11:23. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 12 coolers at receipt time were 1.6º C, 2.3º C, 2.4º C, 2.5º C, 2.6º C, 2.8º C, 3.2º C, 3.4º C, 3.7º C, 4.2º C, 5.2º C and 5.7º C.

Receipt Exceptions
Per COC: Well dry, sample volume truncated. COC not marked for all analyses requested on the SAR-2X. Logged in per SAR-2X, save Radium analyses due to insufficient sample volume for Rad analysis. VER-071&D (500-243025-26)
Client replied to please analyze sample for total metals and inorganic 845 parameter list, and as sample volume allows including major ions (alkalinity, magnesium, potassium, sodium). A revised COC was provided.

Metals
Method 6020B: The method blank for prep batch 745805 contained Ca above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-010 — Lab Sample ID: 500-243025-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.014		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0015		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.11		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.059		0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.00028	J	0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	160	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0014	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Cobalt	0.088		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00057		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	79		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0032	J	0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	1.9		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0014	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	9.3		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	4.6		1.0	0.12	mg/L	1		300.0	Total/NA
Sulfate	230		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	890		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	51.51				ft	1		Field Sampling	Total/NA
Field pH	7.03				SU	1		Field Sampling	Total/NA
Field Temperature	9.76				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	142.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.99				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1243.3				umhos/cm	1		Field Sampling	Total/NA
Turbidity	15.5				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-022 — Lab Sample ID: 500-243025-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.034	B	0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00034	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.084		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.34	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	44	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Lead	0.00053		0.00050	0.00019	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-022 (Continued) — Lab Sample ID: 500-243025-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	25		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	2.5		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0012	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	110	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	6.4		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	26		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	400		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	490		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.36		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	56.15				ft	1		Field Sampling	Total/NA
Field pH	7.51				SU	1		Field Sampling	Total/NA
Field Temperature	11.37				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-7.9				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.77				mg/L	1		Field Sampling	Total/NA
Specific Conductance	789.93				umhos/cm	1		Field Sampling	Total/NA
Turbidity	3.94				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-016A — Lab Sample ID: 500-243025-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.033		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0013		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.33		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.76		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	37	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Lead	0.00034	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	21		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	2.9		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0016	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	210		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	160		10	1.2	mg/L	10		300.0	Total/NA
Sulfate	4.1		1.0	0.21	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	400		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	770		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.82		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	10.66				ft	1		Field Sampling	Total/NA
Field pH	7.66				SU	1		Field Sampling	Total/NA
Field Temperature	10.86				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-122.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.44				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1313.5				umhos/cm	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-016A (Continued) — Lab Sample ID: 500-243025-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Turbidity	4.09				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-035&D — Lab Sample ID: 500-243025-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.16		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0033		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.029		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	2.4	B	0.50	0.13	mg/L	10		6020B	Total Recoverable
Calcium	120	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00060	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Magnesium	110		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0044	J	0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	8.9		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0018	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	1100	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	470		100	12	mg/L	100		300.0	Total/NA
Sulfate	1700		100	21	mg/L	100		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	680		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4300		17	7.2	mg/L	1		SM 2540C	Total/NA
Fluoride	0.65		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	10.90				ft	1		Field Sampling	Total/NA
Field pH	7.34				SU	1		Field Sampling	Total/NA
Field Temperature	10.07				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-126.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.46				mg/L	1		Field Sampling	Total/NA
Specific Conductance	5487.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.99				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-070#S — Lab Sample ID: 500-243025-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.022		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00049	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.020		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.63	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	220	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00050	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-070#S (Continued) — Lab Sample ID: 500-243025-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	90		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0049	J	0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	2.4		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0010	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	29	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	20		1.0	0.12	mg/L	1		300.0	Total/NA
Sulfate	670		50	10	mg/L	50		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1500		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.17		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	15.57				ft	1		Field Sampling	Total/NA
Field pH	7.16				SU	1		Field Sampling	Total/NA
Field Temperature	12.27				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-39.2				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.07				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1545.2				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.88				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-070&D — Lab Sample ID: 500-243025-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.11		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00061	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.42		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	1.4	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	84	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0016	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Cobalt	0.0012		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00098		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	50		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	6.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0019	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	460	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	550		50	5.8	mg/L	50		300.0	Total/NA
Sulfate	47		2.0	0.41	mg/L	2		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	580		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1800		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.43		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	38.95				ft	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-070&D (Continued) — Lab Sample ID: 500-243025-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field pH	6.98				SU	1		Field Sampling	Total/NA
Field Temperature	12.02				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-5.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.67				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2858.2				umhos/cm	1		Field Sampling	Total/NA
Turbidity	51.41				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-071&D — Lab Sample ID: 500-243025-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.11		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00037	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.78		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	1.5	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	45	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00059	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.027		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	33		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	6.3		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0021	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	810	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	800		50	5.8	mg/L	50		300.0	Total/NA
Sulfate	53		2.0	0.41	mg/L	2		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	770		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2400		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.47		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	39.65				ft	1		Field Sampling	Total/NA
Field pH	7.09				SU	1		Field Sampling	Total/NA
Field Temperature	11.36				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	43.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.55				mg/L	1		Field Sampling	Total/NA
Specific Conductance	3994.9				umhos/cm	1		Field Sampling	Total/NA
Turbidity	3.88				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-NED1 — Lab Sample ID: 500-243025-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.30		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.041		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.23		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	10	B	0.50	0.13	mg/L	10		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-NED1 (Continued) — Lab Sample ID: 500-243025-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	470	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00082	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00056		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	49		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.061		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	27		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0016	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	59	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	11		1.0	0.12	mg/L	1		300.0	Total/NA
Sulfate	1300		100	21	mg/L	100		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	210		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2500		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	4.76				ft	1		Field Sampling	Total/NA
Field pH	8.04				SU	1		Field Sampling	Total/NA
Field Temperature	14.88				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-178.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.10				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2400.7				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.19				NTU	1		Field Sampling	Total/NA

Client Sample ID: VER-EB-1 — Lab Sample ID: 500-243025-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.064	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	0.19	J B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Selenium	0.0014	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	0.095	J B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Total Dissolved Solids	42		10	4.3	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VER-035&D_FD — Lab Sample ID: 500-243025-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.16		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0033		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.030		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	2.4	B	0.50	0.13	mg/L	10		6020B	Total Recoverable
Calcium	120	B	0.20	0.044	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-035&D_FD (Continued)

Lab Sample ID: 500-243025-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.00046	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Magnesium	100		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0032	J	0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	8.9		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.0021	J B	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	1100	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	420		100	12	mg/L	100		300.0	Total/NA
Sulfate	1700		100	21	mg/L	100		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	670		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4300		17	7.2	mg/L	1		SM 2540C	Total/NA
Fluoride	0.64		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	10.90				ft	1		Field Sampling	Total/NA
Field pH	7.34				SU	1		Field Sampling	Total/NA
Field Temperature	10.07				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-126.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.46				mg/L	1		Field Sampling	Total/NA
Specific Conductance	5487.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.99				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET CHI
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
300.0	Anions, Ion Chromatography	EPA	EET CHI
SM 2320B	Alkalinity	SM	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
Field Sampling	Field Sampling	EPA	EET CHI
200.7	Preparation, Total Recoverable Metals	EPA	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-243025-5	VER-010	Water	11/28/23 13:40	11/29/23 11:15
500-243025-9	VER-022	Water	11/28/23 12:48	11/29/23 11:15
500-243025-21	VER-016A	Water	11/29/23 09:50	11/30/23 10:09
500-243025-22	VER-035&D	Water	11/29/23 08:07	11/30/23 10:09
500-243025-24	VER-070#S	Water	11/29/23 12:10	11/30/23 10:09
500-243025-25	VER-070&D	Water	11/29/23 13:07	11/30/23 10:09
500-243025-26	VER-071&D	Water	11/29/23 10:55	11/30/23 10:09
500-243025-27	VER-NED1	Water	11/29/23 12:05	11/30/23 10:09
500-243025-28	VER-EB-1	Water	11/29/23 13:15	11/30/23 10:09
500-243025-30	VER-035&D_FD	Water	11/29/23 08:12	11/30/23 10:09

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-010
Date Collected: 11/28/23 13:40
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-5
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.014		0.0050	0.0020	mg/L		12/06/23 19:08	12/07/23 13:34	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:17	12/19/23 23:21	1
Arsenic	0.0015		0.0010	0.00023	mg/L		12/08/23 09:17	12/19/23 23:21	1
Barium	0.11		0.0025	0.00073	mg/L		12/08/23 09:17	12/19/23 23:21	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:17	12/19/23 23:21	1
Boron	0.059		0.050	0.013	mg/L		12/08/23 09:17	12/22/23 13:16	1
Cadmium	0.00028	J	0.00050	0.00017	mg/L		12/08/23 09:17	12/19/23 23:21	1
Calcium	160	B	0.20	0.044	mg/L		12/08/23 09:17	12/19/23 23:21	1
Chromium	0.0014	J	0.0050	0.0011	mg/L		12/08/23 09:17	12/19/23 23:21	1
Cobalt	0.088		0.0010	0.00040	mg/L		12/08/23 09:17	12/19/23 23:21	1
Lead	0.00057		0.00050	0.00019	mg/L		12/08/23 09:17	12/19/23 23:21	1
Magnesium	79		0.20	0.049	mg/L		12/08/23 09:17	12/19/23 23:21	1
Molybdenum	0.0032	J	0.0050	0.0025	mg/L		12/08/23 09:17	12/19/23 23:21	1
Potassium	1.9		0.50	0.11	mg/L		12/08/23 09:17	12/19/23 23:21	1
Selenium	0.0014	J B	0.0025	0.00098	mg/L		12/08/23 09:17	12/19/23 23:21	1
Sodium	9.3		0.20	0.077	mg/L		12/08/23 09:17	12/19/23 23:21	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:17	12/19/23 23:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/11/23 09:05	12/12/23 09:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	4.6		1.0	0.12	mg/L			12/01/23 06:33	1
Sulfate (EPA 300.0)	230		5.0	1.0	mg/L			11/29/23 18:48	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	510		5.0	3.7	mg/L			11/30/23 12:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 12:57	1
Total Dissolved Solids (SM 2540C)	890		10	4.3	mg/L			11/29/23 23:16	1
Fluoride (SM 4500 F C)	0.15		0.10	0.056	mg/L			12/07/23 13:53	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	51.51				ft			11/28/23 13:40	1
Field pH	7.03				SU			11/28/23 13:40	1
Field Temperature	9.76				Degrees C			11/28/23 13:40	1
Oxidation Reduction Potential	142.6				millivolts			11/28/23 13:40	1
Oxygen, Dissolved	2.99				mg/L			11/28/23 13:40	1
Specific Conductance	1243.3				umhos/cm			11/28/23 13:40	1
Turbidity	15.5				NTU			11/28/23 13:40	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-022
Date Collected: 11/28/23 12:48
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-9
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034	B	0.0050	0.0020	mg/L		12/08/23 17:35	12/11/23 17:56	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 00:37	1
Arsenic	0.00034	J	0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 00:37	1
Barium	0.084		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 00:37	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 00:37	1
Boron	0.34	B	0.050	0.013	mg/L		12/08/23 09:20	12/22/23 15:12	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 00:37	1
Calcium	44	B	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 00:37	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 00:37	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 00:37	1
Lead	0.00053		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 00:37	1
Magnesium	25		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 00:37	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 00:37	1
Potassium	2.5		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 00:37	1
Selenium	0.0012	J B	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 00:37	1
Sodium	110	B	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 00:37	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 00:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00050		0.00050	0.00020	mg/L		12/11/23 09:05	12/12/23 07:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	6.4		5.0	0.58	mg/L			11/29/23 20:19	5
Sulfate (EPA 300.0)	26		5.0	1.0	mg/L			11/29/23 20:19	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	400		5.0	3.7	mg/L			11/30/23 15:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 15:14	1
Total Dissolved Solids (SM 2540C)	490		10	4.3	mg/L			11/30/23 00:48	1
Fluoride (SM 4500 F C)	0.36		0.10	0.056	mg/L			12/07/23 14:28	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	56.15				ft			11/28/23 12:48	1
Field pH	7.51				SU			11/28/23 12:48	1
Field Temperature	11.37				Degrees C			11/28/23 12:48	1
Oxidation Reduction Potential	-7.9				millivolts			11/28/23 12:48	1
Oxygen, Dissolved	0.77				mg/L			11/28/23 12:48	1
Specific Conductance	789.93				umhos/cm			11/28/23 12:48	1
Turbidity	3.94				NTU			11/28/23 12:48	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-016A
Date Collected: 11/29/23 09:50
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-21
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.033**		0.0050	0.0020	mg/L		12/11/23 09:08	12/12/23 17:45	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:17	12/20/23 00:26	1
Arsenic	**0.0013**		0.0010	0.00023	mg/L		12/08/23 09:17	12/20/23 00:26	1
Barium	**0.33**		0.0025	0.00073	mg/L		12/08/23 09:17	12/20/23 00:26	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:17	12/20/23 00:26	1
Boron	**0.76**		0.050	0.013	mg/L		12/08/23 09:17	12/22/23 14:16	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:17	12/20/23 00:26	1
Calcium	**37**	**B**	0.20	0.044	mg/L		12/08/23 09:17	12/20/23 00:26	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:17	12/20/23 00:26	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/08/23 09:17	12/20/23 00:26	1
Lead	**0.00034**	**J**	0.00050	0.00019	mg/L		12/08/23 09:17	12/20/23 00:26	1
Magnesium	**21**		0.20	0.049	mg/L		12/08/23 09:17	12/20/23 00:26	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:17	12/20/23 00:26	1
Potassium	**2.9**		0.50	0.11	mg/L		12/08/23 09:17	12/20/23 00:26	1
Selenium	**0.0016**	**J B**	0.0025	0.00098	mg/L		12/08/23 09:17	12/20/23 00:26	1
Sodium	**210**		0.20	0.077	mg/L		12/08/23 09:17	12/20/23 00:26	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:17	12/20/23 00:26	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/11/23 09:05	12/12/23 08:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**160**		10	1.2	mg/L			12/01/23 17:34	10
Sulfate (EPA 300.0)	**4.1**		1.0	0.21	mg/L			12/01/23 17:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**400**		5.0	3.7	mg/L			12/08/23 13:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 13:19	1
Total Dissolved Solids (SM 2540C)	**770**		10	4.3	mg/L			12/05/23 20:16	1
Fluoride (SM 4500 F C)	**0.82**		0.10	0.056	mg/L			12/07/23 15:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**10.66**				ft			11/29/23 09:50	1
Field pH	**7.66**				SU			11/29/23 09:50	1
Field Temperature	**10.86**				Degrees C			11/29/23 09:50	1
Oxidation Reduction Potential	**-122.5**				millivolts			11/29/23 09:50	1
Oxygen, Dissolved	**0.44**				mg/L			11/29/23 09:50	1
Specific Conductance	**1313.5**				umhos/cm			11/29/23 09:50	1
Turbidity	**4.09**				NTU			11/29/23 09:50	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-035&D

Date Collected: 11/29/23 08:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-22

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.16**		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:04	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 00:54	1
Arsenic	**0.0033**		0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 00:54	1
Barium	**0.029**		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 00:54	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 00:54	1
Boron	**2.4**	**B**	0.50	0.13	mg/L		12/08/23 09:20	12/22/23 15:39	10
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 00:54	1
Calcium	**120**	**B**	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 00:54	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 00:54	1
Cobalt	**0.00060**	**J**	0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 00:54	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 00:54	1
Magnesium	**110**		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 00:54	1
Molybdenum	**0.0044**	**J**	0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 00:54	1
Potassium	**8.9**		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 00:54	1
Selenium	**0.0018**	**J B**	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 00:54	1
Sodium	**1100**	**B**	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 00:54	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 00:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/11/23 09:05	12/12/23 08:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**470**		100	12	mg/L			12/01/23 17:49	100
Sulfate (EPA 300.0)	**1700**		100	21	mg/L			12/01/23 17:49	100
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**680**		5.0	3.7	mg/L			12/08/23 13:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 13:29	1
Total Dissolved Solids (SM 2540C)	**4300**		17	7.2	mg/L			12/05/23 20:19	1
Fluoride (SM 4500 F C)	**0.65**		0.10	0.056	mg/L			12/07/23 15:55	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**10.90**				ft			11/29/23 08:07	1
Field pH	**7.34**				SU			11/29/23 08:07	1
Field Temperature	**10.07**				Degrees C			11/29/23 08:07	1
Oxidation Reduction Potential	**-126.7**				millivolts			11/29/23 08:07	1
Oxygen, Dissolved	**0.46**				mg/L			11/29/23 08:07	1
Specific Conductance	**5487.0**				umhos/cm			11/29/23 08:07	1
Turbidity	**6.99**				NTU			11/29/23 08:07	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-070#S
Date Collected: 11/29/23 12:10
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-24
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.022**		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:25	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 01:08	1
Arsenic	**0.00049**	**J**	0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 01:08	1
Barium	**0.020**		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 01:08	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 01:08	1
Boron	**0.63**	**B**	0.050	0.013	mg/L		12/08/23 09:20	12/22/23 15:31	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 01:08	1
Calcium	**220**	**B**	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 01:08	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 01:08	1
Cobalt	**0.00050**	**J**	0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 01:08	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 01:08	1
Magnesium	**90**		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 01:08	1
Molybdenum	**0.0049**	**J**	0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 01:08	1
Potassium	**2.4**		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 01:08	1
Selenium	**0.0010**	**J B**	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 01:08	1
Sodium	**29**	**B**	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 01:08	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 01:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**20**		1.0	0.12	mg/L			12/01/23 16:10	1
Sulfate (EPA 300.0)	**670**		50	10	mg/L			12/01/23 16:25	50
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**280**		5.0	3.7	mg/L			12/08/23 13:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 13:42	1
Total Dissolved Solids (SM 2540C)	**1500**		10	4.3	mg/L			12/05/23 20:24	1
Fluoride (SM 4500 F C)	**0.17**		0.10	0.056	mg/L			12/07/23 16:06	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**15.57**				ft			11/29/23 12:10	1
Field pH	**7.16**				SU			11/29/23 12:10	1
Field Temperature	**12.27**				Degrees C			11/29/23 12:10	1
Oxidation Reduction Potential	**-39.2**				millivolts			11/29/23 12:10	1
Oxygen, Dissolved	**0.07**				mg/L			11/29/23 12:10	1
Specific Conductance	**1545.2**				umhos/cm			11/29/23 12:10	1
Turbidity	**2.88**				NTU			11/29/23 12:10	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-070&D
Date Collected: 11/29/23 13:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-25
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:38	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 01:11	1
Arsenic	0.00061	J	0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 01:11	1
Barium	0.42		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 01:11	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 01:11	1
Boron	1.4	B	0.050	0.013	mg/L		12/08/23 09:20	12/22/23 15:35	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 01:11	1
Calcium	84	B	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 01:11	1
Chromium	0.0016	J	0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 01:11	1
Cobalt	0.0012		0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 01:11	1
Lead	0.00098		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 01:11	1
Magnesium	50		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 01:11	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 01:11	1
Potassium	6.1		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 01:11	1
Selenium	0.0019	J B	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 01:11	1
Sodium	460	B	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 01:11	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 01:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	550		50	5.8	mg/L			12/01/23 16:55	50
Sulfate (EPA 300.0)	47		2.0	0.41	mg/L			12/01/23 16:40	2
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	580		5.0	3.7	mg/L			12/08/23 13:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 13:52	1
Total Dissolved Solids (SM 2540C)	1800		10	4.3	mg/L			12/05/23 20:27	1
Fluoride (SM 4500 F C)	0.43		0.10	0.056	mg/L			12/07/23 16:11	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	38.95				ft			11/29/23 13:07	1
Field pH	6.98				SU			11/29/23 13:07	1
Field Temperature	12.02				Degrees C			11/29/23 13:07	1
Oxidation Reduction Potential	-5.7				millivolts			11/29/23 13:07	1
Oxygen, Dissolved	2.67				mg/L			11/29/23 13:07	1
Specific Conductance	2858.2				umhos/cm			11/29/23 13:07	1
Turbidity	51.41				NTU			11/29/23 13:07	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-071&D
Date Collected: 11/29/23 10:55
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-26
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:42	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 01:15	1
Arsenic	0.00037	J	0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 01:15	1
Barium	0.78		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 01:15	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 01:15	1
Boron	1.5	B	0.050	0.013	mg/L		12/08/23 09:20	12/29/23 14:07	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 01:15	1
Calcium	45	B	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 01:15	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 01:15	1
Cobalt	0.00059	J	0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 01:15	1
Lead	0.027		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 01:15	1
Magnesium	33		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 01:15	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 01:15	1
Potassium	6.3		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 01:15	1
Selenium	0.0021	J B	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 01:15	1
Sodium	810	B	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 01:15	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 01:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	800		50	5.8	mg/L			12/02/23 22:39	50
Sulfate (EPA 300.0)	53		2.0	0.41	mg/L			12/02/23 22:24	2
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	770		5.0	3.7	mg/L			12/08/23 14:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 14:04	1
Total Dissolved Solids (SM 2540C)	2400		10	4.3	mg/L			12/05/23 20:29	1
Fluoride (SM 4500 F C)	0.47		0.10	0.056	mg/L			12/07/23 16:32	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	39.65				ft			11/29/23 10:55	1
Field pH	7.09				SU			11/29/23 10:55	1
Field Temperature	11.36				Degrees C			11/29/23 10:55	1
Oxidation Reduction Potential	43.1				millivolts			11/29/23 10:55	1
Oxygen, Dissolved	0.55				mg/L			11/29/23 10:55	1
Specific Conductance	3994.9				umhos/cm			11/29/23 10:55	1
Turbidity	3.88				NTU			11/29/23 10:55	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-NED1
Date Collected: 11/29/23 12:05
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-27
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.30		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:46	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 01:18	1
Arsenic	0.041		0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 01:18	1
Barium	0.23		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 01:18	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 01:18	1
Boron	10	B	0.50	0.13	mg/L		12/08/23 09:20	12/29/23 14:19	10
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 01:18	1
Calcium	470	B	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 01:18	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 01:18	1
Cobalt	0.00082	J	0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 01:18	1
Lead	0.00056		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 01:18	1
Magnesium	49		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 01:18	1
Molybdenum	0.061		0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 01:18	1
Potassium	27		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 01:18	1
Selenium	0.0016	J B	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 01:18	1
Sodium	59	B	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 01:18	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 01:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	11		1.0	0.12	mg/L			12/01/23 17:10	1
Sulfate (EPA 300.0)	1300		100	21	mg/L			12/01/23 17:26	100
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	210		5.0	3.7	mg/L			12/08/23 14:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 14:16	1
Total Dissolved Solids (SM 2540C)	2500		10	4.3	mg/L			12/05/23 20:32	1
Fluoride (SM 4500 F C)	0.15		0.10	0.056	mg/L			12/07/23 16:26	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	4.76				ft			11/29/23 12:05	1
Field pH	8.04				SU			11/29/23 12:05	1
Field Temperature	14.88				Degrees C			11/29/23 12:05	1
Oxidation Reduction Potential	-178.0				millivolts			11/29/23 12:05	1
Oxygen, Dissolved	0.10				mg/L			11/29/23 12:05	1
Specific Conductance	2400.7				umhos/cm			11/29/23 12:05	1
Turbidity	2.19				NTU			11/29/23 12:05	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-EB-1

Date Collected: 11/29/23 13:15
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-28

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:51	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 01:22	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 01:22	1
Barium	<0.0025		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 01:22	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 01:22	1
Boron	**0.064**	**B**	0.050	0.013	mg/L		12/08/23 09:20	12/29/23 14:11	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 01:22	1
Calcium	**0.19**	**J B**	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 01:22	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 01:22	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 01:22	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 01:22	1
Magnesium	<0.20		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 01:22	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 01:22	1
Potassium	<0.50		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 01:22	1
Selenium	**0.0014**	**J B**	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 01:22	1
Sodium	**0.095**	**J B**	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 01:22	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 01:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	<1.0		1.0	0.12	mg/L			12/01/23 17:41	1
Sulfate (EPA 300.0)	<1.0		1.0	0.21	mg/L			12/01/23 17:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 14:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 14:24	1
Total Dissolved Solids (SM 2540C)	**42**		10	4.3	mg/L			12/05/23 20:34	1
Fluoride (SM 4500 F C)	<0.10		0.10	0.056	mg/L			12/07/23 16:36	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-035&D_FD

Date Collected: 11/29/23 08:12
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-30

Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.16**		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 19:59	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 01:28	1
Arsenic	**0.0033**		0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 01:28	1
Barium	**0.030**		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 01:28	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 01:28	1
Boron	**2.4**	**B**	0.50	0.13	mg/L		12/08/23 09:20	12/29/23 14:23	10
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 01:28	1
Calcium	**120**	**B**	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 01:28	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 01:28	1
Cobalt	**0.00046**	**J**	0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 01:28	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 01:28	1
Magnesium	**100**		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 01:28	1
Molybdenum	**0.0032**	**J**	0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 01:28	1
Potassium	**8.9**		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 01:28	1
Selenium	**0.0021**	**J B**	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 01:28	1
Sodium	**1100**	**B**	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 01:28	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 01:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**420**		100	12	mg/L			12/01/23 18:11	100
Sulfate (EPA 300.0)	**1700**		100	21	mg/L			12/01/23 18:11	100
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**670**		5.0	3.7	mg/L			12/08/23 14:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			12/08/23 14:38	1
Total Dissolved Solids (SM 2540C)	**4300**		17	7.2	mg/L			12/05/23 20:39	1
Fluoride (SM 4500 F C)	**0.64**		0.10	0.056	mg/L			12/07/23 16:46	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**10.90**				ft			11/29/23 08:12	1
Field pH	**7.34**				SU			11/29/23 08:12	1
Field Temperature	**10.07**				Degrees C			11/29/23 08:12	1
Oxidation Reduction Potential	**-126.7**				millivolts			11/29/23 08:12	1
Oxygen, Dissolved	**0.46**				mg/L			11/29/23 08:12	1
Specific Conductance	**5487.0**				umhos/cm			11/29/23 08:12	1
Turbidity	**6.99**				NTU			11/29/23 08:12	1

Definitions/Glossary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Metals

Prep Batch: 745489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total Recoverable	Water	200.7	
MB 500-745489/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-745489/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 745797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total Recoverable	Water	200.7 Rev 4.4	745489
MB 500-745489/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	745489
LCS 500-745489/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	745489

Prep Batch: 745805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total Recoverable	Water	3005A	
500-243025-21	VER-016A	Total Recoverable	Water	3005A	
MB 500-745805/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-745805/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 745806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total Recoverable	Water	3005A	
500-243025-22	VER-035&D	Total Recoverable	Water	3005A	
500-243025-24	VER-070#S	Total Recoverable	Water	3005A	
500-243025-25	VER-070&D	Total Recoverable	Water	3005A	
500-243025-26	VER-071&D	Total Recoverable	Water	3005A	
500-243025-27	VER-NED1	Total Recoverable	Water	3005A	
500-243025-28	VER-EB-1	Total Recoverable	Water	3005A	
500-243025-30	VER-035&D_FD	Total Recoverable	Water	3005A	
MB 500-745806/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-745806/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-243025-9 MS	VER-022_MS	Total Recoverable	Water	3005A	
500-243025-9MSD	VER-022_MSD	Total Recoverable	Water	3005A	
500-243025-9 DU	VER-022	Total Recoverable	Water	3005A	

Prep Batch: 745817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-22	VER-035&D	Total Recoverable	Water	200.7	
500-243025-24	VER-070#S	Total Recoverable	Water	200.7	
500-243025-25	VER-070&D	Total Recoverable	Water	200.7	
500-243025-26	VER-071&D	Total Recoverable	Water	200.7	
500-243025-27	VER-NED1	Total Recoverable	Water	200.7	
500-243025-28	VER-EB-1	Total Recoverable	Water	200.7	
500-243025-30	VER-035&D_FD	Total Recoverable	Water	200.7	
MB 500-745817/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-745817/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
500-243025-22 MS	VER-035&D	Total Recoverable	Water	200.7	
500-243025-22 DU	VER-035&D	Total Recoverable	Water	200.7	

Prep Batch: 745898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total Recoverable	Water	200.7	
MB 500-745898/1-A	Method Blank	Total Recoverable	Water	200.7	

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Metals (Continued)

Prep Batch: 745898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-745898/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
500-243025-9 MS	VER-022_MS	Total Recoverable	Water	200.7	
500-243025-9MSD	VER-022_MSD	Total Recoverable	Water	200.7	
500-243025-9 DU	VER-022	Total Recoverable	Water	200.7	

Prep Batch: 746070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	7470A	
MB 500-746070/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-746070/31-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 746073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total Recoverable	Water	200.7	
MB 500-746073/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-746073/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 746076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total/NA	Water	7470A	
500-243025-21	VER-016A	Total/NA	Water	7470A	
500-243025-22	VER-035&D	Total/NA	Water	7470A	
MB 500-746076/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-746076/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-243025-9 MS	VER-022_MS	Total/NA	Water	7470A	
500-243025-9MSD	VER-022_MSD	Total/NA	Water	7470A	
500-243025-C-9-J DU	500-243025-C-9-J DU	Total/NA	Water	7470A	

Analysis Batch: 746256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total Recoverable	Water	200.7 Rev 4.4	745898
500-243025-22	VER-035&D	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-24	VER-070#S	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-25	VER-070&D	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-26	VER-071&D	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-27	VER-NED1	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-28	VER-EB-1	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-30	VER-035&D_FD	Total Recoverable	Water	200.7 Rev 4.4	745817
MB 500-745817/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	745817
MB 500-745898/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	745898
LCS 500-745817/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	745817
LCS 500-745898/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	745898
500-243025-9 MS	VER-022_MS	Total Recoverable	Water	200.7 Rev 4.4	745898
500-243025-9MSD	VER-022_MSD	Total Recoverable	Water	200.7 Rev 4.4	745898
500-243025-22 MS	VER-035&D	Total Recoverable	Water	200.7 Rev 4.4	745817
500-243025-9 DU	VER-022	Total Recoverable	Water	200.7 Rev 4.4	745898
500-243025-22 DU	VER-035&D	Total Recoverable	Water	200.7 Rev 4.4	745817

Analysis Batch: 746278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	7470A	746070

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Metals (Continued)

Analysis Batch: 746278 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total/NA	Water	7470A	746076
500-243025-21	VER-016A	Total/NA	Water	7470A	746076
500-243025-22	VER-035&D	Total/NA	Water	7470A	746076
MB 500-746070/12-A	Method Blank	Total/NA	Water	7470A	746070
MB 500-746076/12-A	Method Blank	Total/NA	Water	7470A	746076
LCS 500-746070/31-A	Lab Control Sample	Total/NA	Water	7470A	746070
LCS 500-746076/13-A	Lab Control Sample	Total/NA	Water	7470A	746076
500-243025-9 MS	VER-022_MS	Total/NA	Water	7470A	746076
500-243025-9MSD	VER-022_MSD	Total/NA	Water	7470A	746076
500-243025-C-9-J DU	500-243025-C-9-J DU	Total/NA	Water	7470A	746076

Prep Batch: 746288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-24	VER-070#S	Total/NA	Water	7470A	
500-243025-25	VER-070&D	Total/NA	Water	7470A	
500-243025-26	VER-071&D	Total/NA	Water	7470A	
500-243025-27	VER-NED1	Total/NA	Water	7470A	
500-243025-28	VER-EB-1	Total/NA	Water	7470A	
500-243025-30	VER-035&D_FD	Total/NA	Water	7470A	
MB 500-746288/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-746288/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 746479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total Recoverable	Water	200.7 Rev 4.4	746073
MB 500-746073/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	746073
LCS 500-746073/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	746073

Analysis Batch: 746499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-24	VER-070#S	Total/NA	Water	7470A	746288
500-243025-25	VER-070&D	Total/NA	Water	7470A	746288
500-243025-26	VER-071&D	Total/NA	Water	7470A	746288
500-243025-27	VER-NED1	Total/NA	Water	7470A	746288
500-243025-28	VER-EB-1	Total/NA	Water	7470A	746288
500-243025-30	VER-035&D_FD	Total/NA	Water	7470A	746288
MB 500-746288/12-A	Method Blank	Total/NA	Water	7470A	746288
LCS 500-746288/13-A	Lab Control Sample	Total/NA	Water	7470A	746288

Analysis Batch: 747510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total Recoverable	Water	6020B	745805
500-243025-9	VER-022	Total Recoverable	Water	6020B	745806
500-243025-21	VER-016A	Total Recoverable	Water	6020B	745805
500-243025-22	VER-035&D	Total Recoverable	Water	6020B	745806
500-243025-24	VER-070#S	Total Recoverable	Water	6020B	745806
500-243025-25	VER-070&D	Total Recoverable	Water	6020B	745806
500-243025-26	VER-071&D	Total Recoverable	Water	6020B	745806
500-243025-27	VER-NED1	Total Recoverable	Water	6020B	745806
500-243025-28	VER-EB-1	Total Recoverable	Water	6020B	745806
500-243025-30	VER-035&D_FD	Total Recoverable	Water	6020B	745806

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Metals (Continued)

Analysis Batch: 747510 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-745805/1-A	Method Blank	Total Recoverable	Water	6020B	745805
MB 500-745806/1-A	Method Blank	Total Recoverable	Water	6020B	745806
LCS 500-745805/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745805
LCS 500-745806/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745806
500-243025-9 MS	VER-022_MS	Total Recoverable	Water	6020B	745806
500-243025-9MSD	VER-022_MSD	Total Recoverable	Water	6020B	745806
500-243025-9 DU	VER-022	Total Recoverable	Water	6020B	745806

Analysis Batch: 748042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total Recoverable	Water	6020B	745805
500-243025-21	VER-016A	Total Recoverable	Water	6020B	745805
MB 500-745805/1-A	Method Blank	Total Recoverable	Water	6020B	745805
LCS 500-745805/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745805

Analysis Batch: 748512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total Recoverable	Water	6020B	745806
500-243025-22	VER-035&D	Total Recoverable	Water	6020B	745806
500-243025-24	VER-070#S	Total Recoverable	Water	6020B	745806
500-243025-25	VER-070&D	Total Recoverable	Water	6020B	745806
MB 500-745806/1-A	Method Blank	Total Recoverable	Water	6020B	745806
LCS 500-745806/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745806
500-243025-9 MS	VER-022_MS	Total Recoverable	Water	6020B	745806
500-243025-9MSD	VER-022_MSD	Total Recoverable	Water	6020B	745806
500-243025-9 DU	VER-022	Total Recoverable	Water	6020B	745806

Analysis Batch: 748679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-26	VER-071&D	Total Recoverable	Water	6020B	745806
500-243025-27	VER-NED1	Total Recoverable	Water	6020B	745806
500-243025-28	VER-EB-1	Total Recoverable	Water	6020B	745806
500-243025-30	VER-035&D_FD	Total Recoverable	Water	6020B	745806

General Chemistry

Analysis Batch: 744266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	300.0	
500-243025-9	VER-022	Total/NA	Water	300.0	
MB 500-744266/3	Method Blank	Total/NA	Water	300.0	
LCS 500-744266/4	Lab Control Sample	Total/NA	Water	300.0	
500-243025-9 MS	VER-022_MS	Total/NA	Water	300.0	
500-243025-9MSD	VER-022_MSD	Total/NA	Water	300.0	

Analysis Batch: 744338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	SM 2540C	
MB 500-744338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-744338/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

General Chemistry

Analysis Batch: 744339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-9	VER-022	Total/NA	Water	SM 2540C	
MB 500-744339/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-744339/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-243025-9 MS	VER-022_MS	Total/NA	Water	SM 2540C	
500-243025-9MSD	VER-022_MSD	Total/NA	Water	SM 2540C	

Analysis Batch: 744494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	300.0	
MB 500-744494/3	Method Blank	Total/NA	Water	300.0	
LCS 500-744494/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 744621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-24	VER-070#S	Total/NA	Water	300.0	
500-243025-24	VER-070#S	Total/NA	Water	300.0	
500-243025-25	VER-070&D	Total/NA	Water	300.0	
500-243025-25	VER-070&D	Total/NA	Water	300.0	
500-243025-27	VER-NED1	Total/NA	Water	300.0	
500-243025-27	VER-NED1	Total/NA	Water	300.0	
500-243025-28	VER-EB-1	Total/NA	Water	300.0	
500-243025-30	VER-035&D_FD	Total/NA	Water	300.0	
MB 500-744621/3	Method Blank	Total/NA	Water	300.0	
LCS 500-744621/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 744624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total/NA	Water	300.0	
500-243025-21	VER-016A	Total/NA	Water	300.0	
500-243025-22	VER-035&D	Total/NA	Water	300.0	
MB 500-744624/9	Method Blank	Total/NA	Water	300.0	
LCS 500-744624/10	Lab Control Sample	Total/NA	Water	300.0	
LCSD 500-744624/11	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 744626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	SM 2320B	
500-243025-9	VER-022	Total/NA	Water	SM 2320B	
MB 500-744626/28	Method Blank	Total/NA	Water	SM 2320B	
MB 500-744626/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-744626/29	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 500-744626/4	Lab Control Sample	Total/NA	Water	SM 2320B	
500-243025-9 DU	VER-022	Total/NA	Water	SM 2320B	

Analysis Batch: 744820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-26	VER-071&D	Total/NA	Water	300.0	
500-243025-26	VER-071&D	Total/NA	Water	300.0	
MB 500-744820/3	Method Blank	Total/NA	Water	300.0	
LCS 500-744820/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

General Chemistry

Analysis Batch: 745288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total/NA	Water	SM 2540C	
500-243025-22	VER-035&D	Total/NA	Water	SM 2540C	
500-243025-24	VER-070#S	Total/NA	Water	SM 2540C	
500-243025-25	VER-070&D	Total/NA	Water	SM 2540C	
500-243025-26	VER-071&D	Total/NA	Water	SM 2540C	
500-243025-27	VER-NED1	Total/NA	Water	SM 2540C	
500-243025-28	VER-EB-1	Total/NA	Water	SM 2540C	
500-243025-30	VER-035&D_FD	Total/NA	Water	SM 2540C	
MB 500-745288/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-745288/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 745789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	SM 4500 F C	
500-243025-9	VER-022	Total/NA	Water	SM 4500 F C	
500-243025-21	VER-016A	Total/NA	Water	SM 4500 F C	
500-243025-22	VER-035&D	Total/NA	Water	SM 4500 F C	
500-243025-24	VER-070#S	Total/NA	Water	SM 4500 F C	
500-243025-25	VER-070&D	Total/NA	Water	SM 4500 F C	
500-243025-26	VER-071&D	Total/NA	Water	SM 4500 F C	
500-243025-27	VER-NED1	Total/NA	Water	SM 4500 F C	
500-243025-28	VER-EB-1	Total/NA	Water	SM 4500 F C	
500-243025-30	VER-035&D_FD	Total/NA	Water	SM 4500 F C	
MB 500-745789/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-745789/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-745789/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-745789/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-243025-9 MS	VER-022_MS	Total/NA	Water	SM 4500 F C	
500-243025-9MSD	VER-022_MSD	Total/NA	Water	SM 4500 F C	

Analysis Batch: 746041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total/NA	Water	SM 2320B	
500-243025-22	VER-035&D	Total/NA	Water	SM 2320B	
500-243025-24	VER-070#S	Total/NA	Water	SM 2320B	
500-243025-25	VER-070&D	Total/NA	Water	SM 2320B	
500-243025-26	VER-071&D	Total/NA	Water	SM 2320B	
500-243025-27	VER-NED1	Total/NA	Water	SM 2320B	
500-243025-28	VER-EB-1	Total/NA	Water	SM 2320B	
500-243025-30	VER-035&D_FD	Total/NA	Water	SM 2320B	
MB 500-746041/2	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-746041/3	Lab Control Sample	Total/NA	Water	SM 2320B	

Field Service / Mobile Lab

Analysis Batch: 747821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	Field Sampling	
500-243025-9	VER-022	Total/NA	Water	Field Sampling	
500-243025-21	VER-016A	Total/NA	Water	Field Sampling	
500-243025-22	VER-035&D	Total/NA	Water	Field Sampling	

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Field Service / Mobile Lab (Continued)

Analysis Batch: 747821 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-24	VER-070#S	Total/NA	Water	Field Sampling	
500-243025-25	VER-070&D	Total/NA	Water	Field Sampling	
500-243025-26	VER-071&D	Total/NA	Water	Field Sampling	
500-243025-27	VER-NED1	Total/NA	Water	Field Sampling	
500-243025-30	VER-035&D_FD	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 500-745489/1-A
Matrix: Water
Analysis Batch: 745797

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		12/06/23 19:08	12/07/23 12:41	1

Lab Sample ID: LCS 500-745489/2-A
Matrix: Water
Analysis Batch: 745797

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.250	0.249		mg/L		100	85 - 115

Lab Sample ID: MB 500-745817/1-A
Matrix: Water
Analysis Batch: 746256

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		12/08/23 09:53	12/11/23 18:56	1

Lab Sample ID: LCS 500-745817/2-A
Matrix: Water
Analysis Batch: 746256

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.250	0.267		mg/L		107	85 - 115

Lab Sample ID: 500-243025-22 MS
Matrix: Water
Analysis Batch: 746256

Client Sample ID: VER-035&D
Prep Type: Total Recoverable
Prep Batch: 745817

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.16		0.250	0.435		mg/L		109	70 - 130

Lab Sample ID: 500-243025-22 DU
Matrix: Water
Analysis Batch: 746256

Client Sample ID: VER-035&D
Prep Type: Total Recoverable
Prep Batch: 745817

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.16		0.164		mg/L		1	20

Lab Sample ID: MB 500-745898/1-A
Matrix: Water
Analysis Batch: 746256

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.00237	J	0.0050	0.0020	mg/L		12/08/23 17:35	12/11/23 17:30	1

Lab Sample ID: LCS 500-745898/2-A
Matrix: Water
Analysis Batch: 746256

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.250	0.258		mg/L		103	85 - 115

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 746256

Client Sample ID: VER-022_MS
Prep Type: Total Recoverable
Prep Batch: 745898

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.034	B	0.250	0.296		mg/L		105	70 - 130

Lab Sample ID: 500-243025-9MSD
Matrix: Water
Analysis Batch: 746256

Client Sample ID: VER-022_MSD
Prep Type: Total Recoverable
Prep Batch: 745898

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.034	B	0.250	0.294		mg/L		104	70 - 130	1	20

Lab Sample ID: 500-243025-9 DU
Matrix: Water
Analysis Batch: 746256

Client Sample ID: VER-022
Prep Type: Total Recoverable
Prep Batch: 745898

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.034	B	0.0333		mg/L		2	20

Lab Sample ID: MB 500-746073/1-A
Matrix: Water
Analysis Batch: 746479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 746073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		12/11/23 09:08	12/12/23 15:32	1

Lab Sample ID: LCS 500-746073/2-A
Matrix: Water
Analysis Batch: 746479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 746073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.250	0.264		mg/L		106	85 - 115

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-745805/1-A
Matrix: Water
Analysis Batch: 747510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:17	12/19/23 22:39	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		12/08/23 09:17	12/19/23 22:39	1
Barium	<0.0025		0.0025	0.00073	mg/L		12/08/23 09:17	12/19/23 22:39	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:17	12/19/23 22:39	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:17	12/19/23 22:39	1
Calcium	0.313		0.20	0.044	mg/L		12/08/23 09:17	12/19/23 22:39	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:17	12/19/23 22:39	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/08/23 09:17	12/19/23 22:39	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/08/23 09:17	12/19/23 22:39	1
Magnesium	<0.20		0.20	0.049	mg/L		12/08/23 09:17	12/19/23 22:39	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:17	12/19/23 22:39	1
Potassium	<0.50		0.50	0.11	mg/L		12/08/23 09:17	12/19/23 22:39	1
Selenium	0.00146	J	0.0025	0.00098	mg/L		12/08/23 09:17	12/19/23 22:39	1

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-745805/1-A
Matrix: Water
Analysis Batch: 747510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<0.20		0.20	0.077	mg/L		12/08/23 09:17	12/19/23 22:39	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:17	12/19/23 22:39	1

Lab Sample ID: MB 500-745805/1-A
Matrix: Water
Analysis Batch: 748042

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050	0.013	mg/L		12/08/23 09:17	12/22/23 12:31	1

Lab Sample ID: LCS 500-745805/2-A
Matrix: Water
Analysis Batch: 747510

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.495		mg/L		99	80 - 120
Arsenic	0.100	0.0999		mg/L		100	80 - 120
Barium	0.500	0.513		mg/L		103	80 - 120
Beryllium	0.0500	0.0420		mg/L		84	80 - 120
Cadmium	0.0500	0.0464		mg/L		93	80 - 120
Calcium	10.0	8.27		mg/L		83	80 - 120
Chromium	0.200	0.205		mg/L		103	80 - 120
Cobalt	0.500	0.522		mg/L		104	80 - 120
Lead	0.100	0.0979		mg/L		98	80 - 120
Magnesium	10.0	9.56		mg/L		96	80 - 120
Molybdenum	1.00	0.944		mg/L		94	80 - 120
Potassium	10.0	9.55		mg/L		95	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120
Sodium	10.0	9.48		mg/L		95	80 - 120
Thallium	0.100	0.0985		mg/L		98	80 - 120

Lab Sample ID: LCS 500-745805/2-A
Matrix: Water
Analysis Batch: 748042

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.980		mg/L		98	80 - 120

Lab Sample ID: MB 500-745806/1-A
Matrix: Water
Analysis Batch: 747510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/08/23 09:20	12/20/23 00:30	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		12/08/23 09:20	12/20/23 00:30	1
Barium	<0.0025		0.0025	0.00073	mg/L		12/08/23 09:20	12/20/23 00:30	1
Beryllium	<0.0010		0.0010	0.00053	mg/L		12/08/23 09:20	12/20/23 00:30	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/08/23 09:20	12/20/23 00:30	1
Calcium	0.0607	J	0.20	0.044	mg/L		12/08/23 09:20	12/20/23 00:30	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/08/23 09:20	12/20/23 00:30	1

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-745806/1-A
Matrix: Water
Analysis Batch: 747510

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/08/23 09:20	12/20/23 00:30	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/08/23 09:20	12/20/23 00:30	1
Magnesium	<0.20		0.20	0.049	mg/L		12/08/23 09:20	12/20/23 00:30	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/08/23 09:20	12/20/23 00:30	1
Potassium	<0.50		0.50	0.11	mg/L		12/08/23 09:20	12/20/23 00:30	1
Selenium	0.00138	J	0.0025	0.00098	mg/L		12/08/23 09:20	12/20/23 00:30	1
Sodium	0.103	J	0.20	0.077	mg/L		12/08/23 09:20	12/20/23 00:30	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/08/23 09:20	12/20/23 00:30	1

Lab Sample ID: MB 500-745806/1-A
Matrix: Water
Analysis Batch: 748512

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0168	J	0.050	0.013	mg/L		12/08/23 09:20	12/22/23 14:57	1

Lab Sample ID: LCS 500-745806/2-A
Matrix: Water
Analysis Batch: 747510

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.483		mg/L		97	80 - 120
Arsenic	0.100	0.0977		mg/L		98	80 - 120
Barium	0.500	0.517		mg/L		103	80 - 120
Beryllium	0.0500	0.0468		mg/L		94	80 - 120
Cadmium	0.0500	0.0467		mg/L		93	80 - 120
Calcium	10.0	8.37		mg/L		84	80 - 120
Chromium	0.200	0.199		mg/L		99	80 - 120
Cobalt	0.500	0.504		mg/L		101	80 - 120
Lead	0.100	0.0990		mg/L		99	80 - 120
Magnesium	10.0	10.2		mg/L		102	80 - 120
Molybdenum	1.00	0.926		mg/L		93	80 - 120
Potassium	10.0	9.89		mg/L		99	80 - 120
Selenium	0.100	0.0973		mg/L		97	80 - 120
Sodium	10.0	10.2		mg/L		102	80 - 120
Thallium	0.100	0.0987		mg/L		99	80 - 120

Lab Sample ID: LCS 500-745806/2-A
Matrix: Water
Analysis Batch: 748512

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.975		mg/L		98	80 - 120

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 747510

Client Sample ID: VER-022_MS
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0030		0.500	0.506		mg/L		101	75 - 125

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-243025-9 MS — **Client Sample ID: VER-022_MS**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 747510 — **Prep Batch: 745806**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.00034	J	0.100	0.103		mg/L		103	75 - 125
Barium	0.084		0.500	0.601		mg/L		103	75 - 125
Beryllium	<0.0010		0.0500	0.0457		mg/L		91	75 - 125
Cadmium	<0.00050		0.0500	0.0472		mg/L		94	75 - 125
Calcium	44	B	10.0	49.8	4	mg/L		57	75 - 125
Chromium	<0.0050		0.200	0.204		mg/L		102	75 - 125
Cobalt	<0.0010		0.500	0.513		mg/L		103	75 - 125
Lead	0.00053		0.100	0.101		mg/L		101	75 - 125
Magnesium	25		10.0	32.9		mg/L		80	75 - 125
Molybdenum	<0.0050		1.00	0.969		mg/L		97	75 - 125
Potassium	2.5		10.0	11.7		mg/L		92	75 - 125
Selenium	0.0012	J B	0.100	0.103		mg/L		102	75 - 125
Sodium	110	B	10.0	115	4	mg/L		26	75 - 125
Thallium	<0.0020		0.100	0.102		mg/L		102	75 - 125

Lab Sample ID: 500-243025-9 MS — **Client Sample ID: VER-022_MS**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 748512 — **Prep Batch: 745806**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.34	B	1.00	1.28		mg/L		94	75 - 125

Lab Sample ID: 500-243025-9MSD — **Client Sample ID: VER-022_MSD**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 747510 — **Prep Batch: 745806**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.517		mg/L		103	75 - 125	2	20
Arsenic	0.00034	J	0.100	0.104		mg/L		103	75 - 125	0	20
Barium	0.084		0.500	0.596		mg/L		102	75 - 125	1	20
Beryllium	<0.0010		0.0500	0.0478		mg/L		96	75 - 125	5	20
Cadmium	<0.00050		0.0500	0.0477		mg/L		95	75 - 125	1	20
Calcium	44	B	10.0	50.3	4	mg/L		62	75 - 125	1	20
Chromium	<0.0050		0.200	0.207		mg/L		104	75 - 125	1	20
Cobalt	<0.0010		0.500	0.517		mg/L		103	75 - 125	1	20
Lead	0.00053		0.100	0.103		mg/L		102	75 - 125	2	20
Magnesium	25		10.0	33.7		mg/L		89	75 - 125	2	20
Molybdenum	<0.0050		1.00	0.970		mg/L		97	75 - 125	0	20
Potassium	2.5		10.0	11.9		mg/L		94	75 - 125	2	20
Selenium	0.0012	J B	0.100	0.104		mg/L		103	75 - 125	1	20
Sodium	110	B	10.0	117	4	mg/L		46	75 - 125	2	20
Thallium	<0.0020		0.100	0.104		mg/L		104	75 - 125	2	20

Lab Sample ID: 500-243025-9MSD — **Client Sample ID: VER-022_MSD**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 748512 — **Prep Batch: 745806**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.34	B	1.00	1.29		mg/L		95	75 - 125	1	20

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-243025-9 DU
Matrix: Water
Analysis Batch: 747510

Client Sample ID: VER-022
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.00034	J	0.000370	J	mg/L		9	20
Barium	0.084		0.0826		mg/L		2	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	44	B	44.5		mg/L		0.9	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	0.00053		0.000269	J F5	mg/L		65	20
Magnesium	25		24.9		mg/L		0.2	20
Molybdenum	<0.0050		<0.0050		mg/L		NC	20
Potassium	2.5		2.51		mg/L		0.2	20
Selenium	0.0012	J B	0.00114	J	mg/L		3	20
Sodium	110	B	113		mg/L		0.1	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-243025-9 DU
Matrix: Water
Analysis Batch: 748512

Client Sample ID: VER-022
Prep Type: Total Recoverable
Prep Batch: 745806

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	0.34	B	0.354		mg/L		4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-746070/12-A
Matrix: Water
Analysis Batch: 746278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 746070

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/11/23 09:05	12/12/23 08:38	1

Lab Sample ID: LCS 500-746070/31-A
Matrix: Water
Analysis Batch: 746278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 746070

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00180		mg/L		90	80 - 120

Lab Sample ID: MB 500-746076/12-A
Matrix: Water
Analysis Batch: 746278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 746076

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/11/23 09:05	12/12/23 07:40	1

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 500-746076/13-A
Matrix: Water
Analysis Batch: 746278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 746076

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00179		mg/L		89	80 - 120

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 746278

Client Sample ID: VER-022_MS
Prep Type: Total/NA
Prep Batch: 746076

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00050		0.00100	0.000940		mg/L		94	75 - 125

Lab Sample ID: 500-243025-9MSD
Matrix: Water
Analysis Batch: 746278

Client Sample ID: VER-022_MSD
Prep Type: Total/NA
Prep Batch: 746076

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00100	0.000877		mg/L					

Lab Sample ID: 500-243025-C-9-J DU
Matrix: Water
Analysis Batch: 746278

Client Sample ID: 500-243025-C-9-J DU
Prep Type: Total/NA
Prep Batch: 746076

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury			<0.00050		mg/L			

Lab Sample ID: MB 500-746288/12-A
Matrix: Water
Analysis Batch: 746499

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 746288

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/12/23 10:25	12/13/23 08:00	1

Lab Sample ID: LCS 500-746288/13-A
Matrix: Water
Analysis Batch: 746499

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 746288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00183		mg/L		91	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-744266/3
Matrix: Water
Analysis Batch: 744266

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			11/29/23 16:46	1
Sulfate	<1.0		1.0	0.21	mg/L			11/29/23 16:46	1

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 500-744266/4
Matrix: Water
Analysis Batch: 744266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.5		mg/L		103	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 744266

Client Sample ID: VER-022_MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	6.4		50.0	55.7		mg/L		99	80 - 120
Sulfate	26		50.0	80.0		mg/L		107	80 - 120

Lab Sample ID: 500-243025-9MSD
Matrix: Water
Analysis Batch: 744266

Client Sample ID: VER-022_MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	6.4		50.0	54.8		mg/L		97	80 - 120	2	20
Sulfate	26		50.0	78.7		mg/L		105	80 - 120	2	20

Lab Sample ID: MB 500-744494/3
Matrix: Water
Analysis Batch: 744494

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			12/01/23 01:45	1
Sulfate	<1.0		1.0	0.21	mg/L			12/01/23 01:45	1

Lab Sample ID: LCS 500-744494/4
Matrix: Water
Analysis Batch: 744494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.4		mg/L		102	90 - 110
Sulfate	20.0	20.7		mg/L		104	90 - 110

Lab Sample ID: MB 500-744621/3
Matrix: Water
Analysis Batch: 744621

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			12/01/23 09:50	1
Sulfate	<1.0		1.0	0.21	mg/L			12/01/23 09:50	1

Lab Sample ID: LCS 500-744621/4
Matrix: Water
Analysis Batch: 744621

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.6		mg/L		98	90 - 110
Sulfate	20.0	20.1		mg/L		101	90 - 110

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-744624/9
Matrix: Water
Analysis Batch: 744624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			12/01/23 10:01	1
Sulfate	<1.0		1.0	0.21	mg/L			12/01/23 10:01	1

Lab Sample ID: LCS 500-744624/10
Matrix: Water
Analysis Batch: 744624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.2		mg/L		101	90 - 110
Sulfate	20.0	20.4		mg/L		102	90 - 110

Lab Sample ID: LCSD 500-744624/11
Matrix: Water
Analysis Batch: 744624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20.0	20.2		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.4		mg/L		102	90 - 110	0	20

Lab Sample ID: MB 500-744820/3
Matrix: Water
Analysis Batch: 744820

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			12/02/23 20:17	1
Sulfate	<1.0		1.0	0.21	mg/L			12/02/23 20:17	1

Lab Sample ID: LCS 500-744820/4
Matrix: Water
Analysis Batch: 744820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.1		mg/L		101	90 - 110
Sulfate	20.0	20.6		mg/L		103	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-744626/28
Matrix: Water
Analysis Batch: 744626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/30/23 13:27	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/30/23 13:27	1

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 500-744626/3
Matrix: Water
Analysis Batch: 744626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/30/23 10:09	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/30/23 10:09	1

Lab Sample ID: LCS 500-744626/29
Matrix: Water
Analysis Batch: 744626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	99.7		mg/L		100	90 - 110

Lab Sample ID: LCS 500-744626/4
Matrix: Water
Analysis Batch: 744626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	94.6		mg/L		95	90 - 110

Lab Sample ID: 500-243025-9 DU
Matrix: Water
Analysis Batch: 744626

Client Sample ID: VER-022
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	400		399		mg/L		0.8	20
Carbonate Alkalinity as CaCO3	<5.0		<5.0		mg/L		NC	20

Lab Sample ID: MB 500-746041/2
Matrix: Water
Analysis Batch: 746041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			12/08/23 12:39	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			12/08/23 12:39	1

Lab Sample ID: LCS 500-746041/3
Matrix: Water
Analysis Batch: 746041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	97.6		mg/L		98	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-744338/1
Matrix: Water
Analysis Batch: 744338

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			11/29/23 22:33	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-744338/2
Matrix: Water
Analysis Batch: 744338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			250	252		mg/L		101	80 - 120		

Lab Sample ID: MB 500-744339/1
Matrix: Water
Analysis Batch: 744339

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			11/30/23 00:43	1

Lab Sample ID: LCS 500-744339/2
Matrix: Water
Analysis Batch: 744339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			250	244		mg/L		98	80 - 120		

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 744339

Client Sample ID: VER-022_MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids	490		250	696		mg/L		84	75 - 125		

Lab Sample ID: 500-243025-9MSD
Matrix: Water
Analysis Batch: 744339

Client Sample ID: VER-022_MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	490		250	730		mg/L		98	75 - 125	5	20

Lab Sample ID: MB 500-745288/1
Matrix: Water
Analysis Batch: 745288

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			12/05/23 19:56	1

Lab Sample ID: LCS 500-745288/2
Matrix: Water
Analysis Batch: 745288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			250	276		mg/L		110	80 - 120		

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-745789/3
Matrix: Water
Analysis Batch: 745789

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10	0.056	mg/L			12/07/23 13:27	1

Lab Sample ID: MB 500-745789/31
Matrix: Water
Analysis Batch: 745789

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10	0.056	mg/L			12/07/23 15:45	1

Lab Sample ID: LCS 500-745789/32
Matrix: Water
Analysis Batch: 745789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			10.0	10.1		mg/L		101	90 - 119		

Lab Sample ID: LCS 500-745789/4
Matrix: Water
Analysis Batch: 745789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			10.0	9.85		mg/L		98	90 - 119		

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 745789

Client Sample ID: VER-022_MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	0.36		5.00	5.37		mg/L		100	75 - 125		

Lab Sample ID: 500-243025-9MSD
Matrix: Water
Analysis Batch: 745789

Client Sample ID: VER-022_MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.36		5.00	5.29		mg/L		99	75 - 125	1	20

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-010
Date Collected: 11/28/23 13:40
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745489	MC	EET CHI	12/06/23 19:08 - 12/07/23 00:08 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	745797	JAB	EET CHI	12/07/23 13:34
Total Recoverable	Prep	3005A			745805	BDE	EET CHI	12/08/23 09:17 - 12/08/23 09:47 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/19/23 23:21
Total Recoverable	Prep	3005A			745805	BDE	EET CHI	12/08/23 09:17 - 12/08/23 09:47 [1]
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 13:16
Total/NA	Prep	7470A			746070	MJG	EET CHI	12/11/23 09:05 - 12/11/23 11:05 [1]
Total/NA	Analysis	7470A		1	746278	MJG	EET CHI	12/12/23 09:48
Total/NA	Analysis	300.0		5	744266	NMB	EET CHI	11/29/23 18:48
Total/NA	Analysis	300.0		1	744494	NMB	EET CHI	12/01/23 06:33
Total/NA	Analysis	SM 2320B		1	744626	SO	EET CHI	11/30/23 12:57
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 23:16
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 13:53
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/28/23 13:40

Client Sample ID: VER-022
Date Collected: 11/28/23 12:48
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745898	MC	EET CHI	12/08/23 17:35 - 12/08/23 22:35 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 17:56
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 00:37
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	748512	RN	EET CHI	12/22/23 15:12
Total/NA	Prep	7470A			746076	MJG	EET CHI	12/11/23 09:05 - 12/11/23 11:05 [1]
Total/NA	Analysis	7470A		1	746278	MJG	EET CHI	12/12/23 07:51
Total/NA	Analysis	300.0		5	744266	NMB	EET CHI	11/29/23 20:19
Total/NA	Analysis	SM 2320B		1	744626	SO	EET CHI	11/30/23 15:14
Total/NA	Analysis	SM 2540C		1	744339	CLB	EET CHI	11/30/23 00:48
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 14:28
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/28/23 12:48

Client Sample ID: VER-016A
Date Collected: 11/29/23 09:50
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			746073	BDE	EET CHI	12/11/23 09:08 - 12/11/23 09:38 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746479	SJ	EET CHI	12/12/23 17:45
Total Recoverable	Prep	3005A			745805	BDE	EET CHI	12/08/23 09:17 - 12/08/23 09:47 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 00:26

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-016A
Date Collected: 11/29/23 09:50
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			745805	BDE	EET CHI	12/08/23 09:17 - 12/08/23 09:47 [1]
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 14:16
Total/NA	Prep	7470A			746076	MJG	EET CHI	12/11/23 09:05 - 12/11/23 11:05 [1]
Total/NA	Analysis	7470A		1	746278	MJG	EET CHI	12/12/23 08:31
Total/NA	Analysis	300.0		1	744624	NMB	EET CHI	12/01/23 17:18
Total/NA	Analysis	300.0		10	744624	NMB	EET CHI	12/01/23 17:34
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 13:19
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:16
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 15:41
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 09:50

Client Sample ID: VER-035&D
Date Collected: 11/29/23 08:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:04
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 00:54
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		10	748512	RN	EET CHI	12/22/23 15:39
Total/NA	Prep	7470A			746076	MJG	EET CHI	12/11/23 09:05 - 12/11/23 11:05 [1]
Total/NA	Analysis	7470A		1	746278	MJG	EET CHI	12/12/23 08:33
Total/NA	Analysis	300.0		100	744624	NMB	EET CHI	12/01/23 17:49
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 13:29
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:19
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 15:55
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 08:07

Client Sample ID: VER-070#S
Date Collected: 11/29/23 12:10
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-24
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:25
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 01:08
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	748512	RN	EET CHI	12/22/23 15:31
Total/NA	Prep	7470A			746288	MJG	EET CHI	12/12/23 10:25 - 12/12/23 12:25 [1]
Total/NA	Analysis	7470A		1	746499	MJG	EET CHI	12/13/23 08:04
Total/NA	Analysis	300.0		1	744621	NMB	EET CHI	12/01/23 16:10

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-070#S
Date Collected: 11/29/23 12:10
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-24
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		50	744621	NMB	EET CHI	12/01/23 16:25
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 13:42
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:24
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 16:06
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 12:10

Client Sample ID: VER-070&D
Date Collected: 11/29/23 13:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:38
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 01:11
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	748512	RN	EET CHI	12/22/23 15:35
Total/NA	Prep	7470A			746288	MJG	EET CHI	12/12/23 10:25 - 12/12/23 12:25 [1]
Total/NA	Analysis	7470A		1	746499	MJG	EET CHI	12/13/23 08:06
Total/NA	Analysis	300.0		2	744621	NMB	EET CHI	12/01/23 16:40
Total/NA	Analysis	300.0		50	744621	NMB	EET CHI	12/01/23 16:55
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 13:52
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:27
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 16:11
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 13:07

Client Sample ID: VER-071&D
Date Collected: 11/29/23 10:55
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-26
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:42
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 01:15
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	748679	RN	EET CHI	12/29/23 14:07
Total/NA	Prep	7470A			746288	MJG	EET CHI	12/12/23 10:25 - 12/12/23 12:25 [1]
Total/NA	Analysis	7470A		1	746499	MJG	EET CHI	12/13/23 08:08
Total/NA	Analysis	300.0		2	744820	NMB	EET CHI	12/02/23 22:24
Total/NA	Analysis	300.0		50	744820	NMB	EET CHI	12/02/23 22:39
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 14:04
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:29

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-071&D
Date Collected: 11/29/23 10:55
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-26
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 16:32
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 10:55

Client Sample ID: VER-NED1
Date Collected: 11/29/23 12:05
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-27
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 ¹
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:46
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 ¹
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 01:18
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 ¹
Total Recoverable	Analysis	6020B		10	748679	RN	EET CHI	12/29/23 14:19
Total/NA	Prep	7470A			746288	MJG	EET CHI	12/12/23 10:25 - 12/12/23 12:25 ¹
Total/NA	Analysis	7470A		1	746499	MJG	EET CHI	12/13/23 08:10
Total/NA	Analysis	300.0		1	744621	NMB	EET CHI	12/01/23 17:10
Total/NA	Analysis	300.0		100	744621	NMB	EET CHI	12/01/23 17:26
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 14:16
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:32
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 16:26
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 12:05

Client Sample ID: VER-EB-1
Date Collected: 11/29/23 13:15
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-28
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 ¹
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:51
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 ¹
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 01:22
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 ¹
Total Recoverable	Analysis	6020B		1	748679	RN	EET CHI	12/29/23 14:11
Total/NA	Prep	7470A			746288	MJG	EET CHI	12/12/23 10:25 - 12/12/23 12:25 ¹
Total/NA	Analysis	7470A		1	746499	MJG	EET CHI	12/13/23 08:13
Total/NA	Analysis	300.0		1	744621	NMB	EET CHI	12/01/23 17:41
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 14:24
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:34
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 16:36

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Client Sample ID: VER-035&D_FD

Date Collected: 11/29/23 08:12
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745817	BDE	EET CHI	12/08/23 09:53 - 12/08/23 10:23 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	746256	SJ	EET CHI	12/11/23 19:59
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		1	747510	RN	EET CHI	12/20/23 01:28
Total Recoverable	Prep	3005A			745806	BDE	EET CHI	12/08/23 09:20 - 12/08/23 09:50 [1]
Total Recoverable	Analysis	6020B		10	748679	RN	EET CHI	12/29/23 14:23
Total/NA	Prep	7470A			746288	MJG	EET CHI	12/12/23 10:25 - 12/12/23 12:25 [1]
Total/NA	Analysis	7470A		1	746499	MJG	EET CHI	12/13/23 08:54
Total/NA	Analysis	300.0		100	744621	NMB	EET CHI	12/01/23 18:11
Total/NA	Analysis	SM 2320B		1	746041	SO	EET CHI	12/08/23 14:38
Total/NA	Analysis	SM 2540C		1	745288	CLB	EET CHI	12/05/23 20:39
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 16:46
Total/NA	Analysis	Field Sampling		1	747821	DN	EET CHI	11/29/23 08:12

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-5
SDG: VER_845_912

Laboratory: Eurofins Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium
Field Sampling		Water	Depth to Water (ft from MP)
Field Sampling		Water	Field pH
Field Sampling		Water	Field Temperature
Field Sampling		Water	Oxidation Reduction Potential
Field Sampling		Water	Oxygen, Dissolved
Field Sampling		Water	Specific Conductance
Field Sampling		Water	Turbidity
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3

Courrier Pickup

CAA3115 COC# 8901055 15.001

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 1 of 2

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker Jason Stuckey	Attention	Brian Voelker
Address	10188 E 2150 North Rd	Copy To	Sam Davies samantha davies@vistracorp.com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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

500-243025 COC

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_060_RAD							Residual Chlorine (Y/N)	Project No./ Lab I.D
1	VER-002																												
2	VER-003R																												
3	VER-004																												
4	VER-005			11-27-23	1434		6	3		3							X	X			X								
5	VER-007R																												
6	VER-008R																												
7	VER-010																												
8	VER-016!B																												
9	VER-016A																												
10	VER-017																												
11	VER-020																												
12	VER-021																												
13	VER-022																												
14	VER-034																												
15	VER-035#S																												
16	VER-035&D																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	N Dunn / Ramboll	11/28/23	9:26	M. J. Ellias	11/28/23	0926	
	M. J. Ellias	11/28/23	1123	Stephanie Hernandez EEIA	11/28/23	1123	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Dunn

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/28/23

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

2.5+2.3

Courier pickup

600-143005

COC#14401055515 001

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 2 of 2

Section A Required Client Information.		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker Jason Stuckey	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To:	Sam Davies samantha davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner - Dianna Tickner@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

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)	VER_000	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000_A	VER_000_RAD							Residual Chlorine (Y/N)	Project No./ Lab I D.
	1	VER-036																													
	2	VER-037																													
	3	VER-038																													
	4	VER-040																													
2	5	VER-041			11-27-23	1527		6	3		3								X			X	X								
	6	VER-042																													
	7	VER-043																													
	8	VER-070#S																													
	9	VER-070&D																													
	10	VER-071#S																													
	11	VER-071&D																													
3	12	VER-101&			11-27-23	1550		6	3		3							X	X			X	X								
	13	VER-103&																													
	14	VER-ND3																													
	15	VER-NED1																													
	16	VER-OED1																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	[signature] / Ramsull	11/28/23	926	Stephanie Hernandez EEIA	11/28/23	1123	

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER	Nate Rada		
SIGNATURE of SAMPLER	[signature]	DATE Signed (MM/DD/YY):	11/28/23

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

Confirmed Pickup

CHAIN-OF-CUSTODY / Analytical Request Document

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COC# 1940105515 002

Page 1 of 3

500-243025

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Brian Voelker
Address	10188 E 2150 North Rd	Copy To	Sam Davies samantha.davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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 #	

500 243025 COC

REGULATORY AGENCY

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

Site Location STATE: IL

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

	ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	Ver_000_RAD	VER_000_B	Residual Chlorine (Y/N)	Project No./ Lab I D
	1	VER-002																							
	2	VER-003R																							
4	3	VER-004	GW	G	11/28/23	1315		18	9		9							X	X			X			
	4	VER-005																							
	5	VER-007R																							
	6	VER-008R																							
5	7	VER-010	GW	G	11/28/23	1340		7	3		4								X	X	X	X	X		
	8	VER-016!B																							
	9	VER-016A																							
6	10	VER-017	GW	G	11/28/23	1500		6	3		3							X	X			X			
7	11	VER-020	GW	G	11/28/23	1428		6	3		3							X	X			X			
8	12	VER-021	GW	G	11/28/23	1603		6	3		3							X	X			X			
9	13	VER-022	GW	G	11/28/23	1248		18	9		9							X		X		X			
10	14	VER-034	GW	G	11/28/23	1509		6	3		3							X	X			X			
	15	VER-035#S																							
	16	VER-035&D																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	[illegible] Rumbold	11-29-23	917	[illegible] Ellis	11/29/23	0917	3.4→3.2, 2.7+2.5
Ver-022 MS/MSD, Ver-004 MS/MSD	[illegible] Ellis	11/29/23	1115	[illegible]	11/29/23	1115	5.4+5.2, 3.6+3.4

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Nate [illegible]
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 11-29-23

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

5.9+5.7

coll'n pickup

CHAIN-OF-CUSTODY / Analytical Request Document

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COC#1940105515.002

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500-243025

Section A Required Client Information

Company:	Vistra Corp-Vermilion
Address	10188 E 2150 North Rd
	Danville, IL 61834
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
	Dianna Tickner Dianna Tickner@vistracorp com
Purchase Order No	
Project Name	
Project Number	2285

Section C Invoice Information

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location 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	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER-000-RAD	Residual Chlorine (Y/N)	Project No./ Lab I D.
11 1	VER-036	GW	6	11/28/23	1576		6	3		3							X	X			X		
12 2	VER-037	GW	6	11/28/23	0844		6	3		3							X	X			X		
13 3	VER-038	GW	6	11/28/23	1214		6	3		3							X	X			X		
4	VER-040																						
5	VER-041																						
14 6	VER-042	GW	6	11/28/23	1026		6	3		3							X	X			X		
15 7	VER-043	GW	6	11/28/23	1117		6	3		3							X	X			X		
8	VER-070#S																						
9	VER-070&D																						
10	VER-071#S																						
11	VER-071&D																						
12	VER-101&																						
16 13	VER-103&	GW	6	11/28/23	0915		6	3		3							X	X			X		
14	VER-ND3																						
15	VER-NED1																						
16	VER-OED1																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0		11-29-23	0917		11/29/23	0917	
		11/29/23	1115		11/29/23	1115	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Dorn

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11-29-23

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

Courier pickup

CHAIN-OF-CUSTODY / Analytical Request Document

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COC #19401055/S 002

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500-243025

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To:	Sam Davies. samantha.davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner - Dianna Tickner@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

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	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_4	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_00E-RAD	Residual Chlorine (Y/N)	Project No./Lab I.D
1	VER-YSG01																						
2	Field Blank																						
17 3	VER_076_FD	GW	G	11/28/23	1224		6	3		3							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
VER-23Q4 Rev 0	[signature] / Ramboll	11-29-23	917	[signature]	11/29/23	0917	
	[signature]	11/29/23	1115	[signature]	11/29/23	1115	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate D...

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 11/29/23

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

COC#1470105513003

Page 1 of 3

500-243025

Section A Required Client Information

Company	Vistra Corp-Vermilion
Address	10188 E 2150 North Rd
	Danville, IL 61834
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
	Dianna Tickner - Dianna Tickner@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	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_COC-RAD	VER_000-D							Residual Chlorine (Y/N)	Project No./ Lab I.D.
18 1	VER-002	GW	6	11-29-23	1007		6	3		3							X	X			X									
19 2	VER-003R	GW	6	11-29-23	0828		6	3		3							X	X			X									
3	VER-004																													
4	VER-005																													
5	VER-007R																													
20 6	VER-008R	GW	6	11-29-23	0857		6	3		3							X	X			X									
7	VER-010																													
8	VER-016!B																													
21 9	VER-016A	GW	6	11-29-23	0450		7	3		4									X	X	X	X								
10	VER-017																													
11	VER-020																													
12	VER-021																													
13	VER-022																													
14	VER-034																													
15	VER-035#S																													
22 16	VER-035&D	GW	6	11-29-23	0807		7	3		4									X	X	X	X								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	Scott Woods on behalf of Nate Duda SDW	11/30/23	0905		11/30/23	0905	3.0→2.8, 4.4→4.1
					11/30/23	1009	2.8→2.6, 3.9→3.7
							2.6→2.4, 4.7→4.6

M. J. Ellan 11/30/23 1009

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Duda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 11-29-23

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

COC H1901055 15.003

Page 2 of 3

500-243025

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To.	Sam Davies samantha davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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

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	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_X	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000-RAD	Residual Chlorine (Y/N)	Project No./ Lab I.D.
	1	VER-036																						
	2	VER-037																						
	3	VER-038																						
23	4	VER-040	WG	G	11-29-23	1057		6	3		3							X	X			X		
	5	VER-041																						
	6	VER-042																						
	7	VER-043																						
24	8	VER-070#S	GW	G	11/29/23	1210		6	3		3							X		X		X		
25	9	VER-070&D	GW	G	11/29/23	1307		6	3		3							X		X		X		
	10	VER-071#S																						
26	11	VER-071&D	GW	G	11/29/23	1055		2	1		1							X		X				Revised 12/4/23, Eric Bauer
	12	VER-101&																						
	13	VER-103&																						
	14	VER-ND3																						
27	15	VER-NED1	GW	G	11/29/23	1205		6	3		3							X		X		X		
	16	VER-OED1																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	Scott Woods on behalf of Nate Duda STWd	11/30/23	0905	R. J. Elkan	11/30/23	0905	
VER710 wat dry	R. J. Elkan	11/30/23	1009	[signature]	11/30/23	1009	

Collected water can

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Duda

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 11/29/23

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

COCH19401055/5 007

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 3 of 3

500-243025

Section A Required Client Information

Company	Vistra Corp-Vermilion
Address	10188 E 2150 North Rd
	Danville, IL 61834
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
	Dianna Tickner Dianna Tickner@vistracorp com
Purchase Order No.	
Project Name	
Project Number	2285

Section C Invoice Information

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

REGULATORY AGENCY

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

Site Location STATE: IL

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

	ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000_Rad	VER_000_B	Residual Chlorine (Y/N)	Project No./ Lab I D
	1	VER-YSG01																							
28	2	~~Field Blank~~ VER_EB-1	WT	G	11/29/23	1315		7										X	X	(X)	(X)	(X)	(X)		
29	3	VER_002_FD	GW	G	11-29-23	1012		6	3		3							(X)	X						
	4																	X	X			X			
30	5	VER-035D_FD	GW	G	11-29-23	0812														X	X	X	X		
	6																								
	7																								
	8																								
	9																								
	10																								
	11																								
	12																								
	13																								
	14																								
	15																								
	16																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
VER-23Q4 Rev 0	Scott Woods on behalf of Nate Duda [signature]	11/30/23	0905	[signature]	11/30/23	0905
VER-EB-1 circled is for analysis	[signature]	11/30/23	1009	[signature]	11/30/23	1009

VER_845_912, VER-NPDES-912, VER-000RAD, VER_000-B SAME AS VER-035D_FD

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

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

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

Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-243025-5
SDG Number: VER_845_912

Login Number: 243025
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3,3.2,2.5,5.2,3.4,5.7,2.8,4.2,2.6,3.7,2.4,1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1257
Field Personnel: LCA SK
Finish Date: Time: 1315

WELL INFORMATION

Well ID: 04
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	8.41	1257	8.90	1315
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1257	0.0	8.41	NA	12.28	7.76	4662.45	2.68	50.42	-123.7	clear
purge	1303		8.90	0.49	12.56	7.75	4655.24	0.74	21.30	-164.0	clear
	↓	↓	↓	0.00	↓	↓	↓	↓	↓	↓	↓
				↓			↓	↓	↓		
							data in vm	situ			
							↓	↓	↓		
sample	1315	~1.5	8.90	0.00	12.37	7.75	4660.00	0.61	7.78	-188.6	clear

* Hach meter readings *
INITIAL 18.9
PURGE 13.9

MS/MSD 008

* can take either turbidity reading (they matched up)

9:00 11.1
12:00 9.3
15:00 7.4
18:00 7.3

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion | Client:
Project Number: | Task #: | Start Date: 11/27/23 Time: 1400
Field Personnel: LCA SVK | Finish Date: Time: 1434

WELL INFORMATION

Well ID: 05
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	7.84	1400	8.07	1434
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1400	0.0	7.84	NA	12.15	7.33	706.40	2.15	77.64	170.3	clear
purge	1406		7.98	0.14							
			8.04	0.06	↓	↓				↓	↓
			8.07	0.03							
			↓	0.00			data	in vn	situ		
							↓	↓	↓		
			↓	↓	↓	↓				↓	↓
sample	1434	~1	8.07	0.00	12.80	7.45	720.14	0.05	0.98	73.8	clear

001

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion | Client:
Project Number: | Task #: | Start Date: 11/27/23 | Time: 1502
Field Personnel: LCA SK | Finish Date: | Time: 1527

WELL INFORMATION

Well ID: 41
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: ~200 ML/MIN

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	7.25	1502	7.30	1527
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1502	0.0	7.25	NA	10.56	7.26	1089.9	2.74	9.53	-87.9	clear
purge	1508	↓	7.30	0.05							
		↓	7.30	0.00	↓	↓			↓	↓	↓
		↓	↓	↓	↓	↓	data in VM site	↓	↓	↓	↓
		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
sample	15:27	~1	7.30	0.00	11.59	7.25	1113.3	0.14	75.84	-207.5	clear

002

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion
Client: Vistra
Project Number:
Task #:
Start Date: 11/27/23 Time: 15:08
Field Personnel: Michael Davis, Kyle Heimstead
Finish Date: 11/27/23 Time: 15:50

WELL INFORMATION

Well ID: VER_101
Casing ID: 2 Inches
Screen Interval: 151-141
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED M9so
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 140 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	108.81	1500	111.27	1550
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: N/A feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	15:00	0.26	108.81	N/A	—	—	—	—	—	—	—
purge	15:05	~~0.15~~ 0.41	—	—	10.95	7.44	836.88	0.94	1,873.9	-122.1	Cloudy
	15:~~10~~	0.56	—	—		Saved in Vusitas		File	988.43	Saved	in Vusitas
	15:~~15~~	0.71	110.31	-1.5					482.00		
	15:~~20~~	0.86	—	—					273.22		
	15:~~25~~	1.01	—	—					277.09		
	15:~~30~~	1.16	—	—					591.78		
	15:~~35~~	1.31	110.91	-2.1					49.1 *		

MD

Continue to second page →

Continued →

* HACH Reading

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion
Client: Vistra
Project Number:
Task #:
Start Date: 11/27/23 Time: 1500
Field Personnel: Michael Davis, Kyle Heimstead
Finish Date: 11/27/23 Time: 1550

WELL INFORMATION

Well ID: VER_101d
Casing ID: 2 inches

EVENT TYPE

☐ Well Development
☐ Well Volume Approach Sampling
☑ Low-Flow / Low Stress Sampling
☐ Other (Specify):

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1540	1.46	111.09	-2.28	Saved in Vu Site file				21.5*	Saved in Vu Site	
	1545	2.01	111.19	-2.38	↓	↓	↓	↓	21.1*	↓	↓
	1550	2.16	111.27	-2.46	10.61	7.55	836.55	0.52	24.1*	-146.1	Slightly turbid

NOTES (continued)

Second pase of Ver_101

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing
na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential
SEC - Specific Electrical Conductance
SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

* HACH Reading

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VISTRA - VERMILLION
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1055
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: 11/28/23 Time: 1340

WELL INFORMATION

Well ID: VER_10
Casing ID: 2 Inches
Screen Interval: 46.6 - 56.6
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED M950
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 190 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	51.51	1037	54.68+ top of pump	1137
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1102	0.25	54.15	-2.64	11.10	7.01	1,301.1	4.05	52.9*	193.6	OK
purge	1107	0.50	54.64	-0.49	See Notes				49.7*		Slightly Turbid
	1112	~~0.75~~	54.68+	+					54.0*		
	1117	0.74	+	+					74.1*		
	1122	0.86	+	+					31.2*		
	1127	0.98	+	+					17.2*		
	1132	1.10	+	+					22.2*		
	1137	1.22	+	+	9.76	7.03	1,243	2.49	15.5*	142.6	

At 1107 switched from 190 mL/min to 90 mL/min due to drawdown.

Sampled at: 1340 11/28/23

* HACH Reading
+ top of pump (not water level)

Well purged dry 11/28/23 @ 1137

Returned to sample 11/28/23 @ 1340

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VISTRA - VERMILION
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1420
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: 11/28/23 Time: 1530

WELL INFORMATION

Well ID: VER-17
Casing ID: 2 Inches
Screen Interval: 54-59
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED MP50
Tube/Pump Intake Depth: 160
Stabilized Pumping Rate: 200 mL / min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	41.92	1420	47.89	1456
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1435	0.48	42.92	1.0	12.38	7.05	2,125.6	4.04	* 50.2	-7.6	Clear
purge	1438	0.64	42.92	0	12.03	7.01	2,112.8	1.12	* 43.3	-12.9	
	1441	0.80	44.00	1.08	11.75	6.99	2,106.5	0.72	* 41.2	-6.9	
	1444	0.96	45.41	1.41	11.75	6.98	2,103.7	0.61	* 46.0	-0.7	
	1447	1.12	46.12	0.71	11.73	6.98	2,104.6	0.56	* 41.9	4.2	
	1450	1.25	46.62	0.50	11.10	6.98	2,101.2	0.61	—	7.2	
	1453	1.37	47.15	0.53	11.00	6.98	2,108.3	0.62	* 42.1	7.5	
	1456	1.49	47.89	0.74	10.99	6.99	2,112.3	0.61	* 48.8	4.0	

Purged for 9 minutes prior to initial reading above (1425-1435)
Purge rate reduced from 200 ml/min to 160 ml/min due to drawdown.
Sample Time: 1500
* at 1447

* HACH Reading

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion Client:
Project Number: Task #: Start Date: 11/28/23 Time: 1416
Field Personnel: LCA SK Finish Date: Time: 1428

WELL INFORMATION

Well ID: 20
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min hr

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	15.62	1416	15.62	1428
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #: Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1416	0.0	15.62	NA	11.64	7.23	610.23	0.40	76.23	-78.8	clear
purge	1422	↓	15.62	0.00	11.86	7.21	621.28	0.32	41.89	-76.5	clear
	1425	↓	15.62	0.00	11.97	7.20	625.27	0.30	38.90	-75.6	clear
Sample	1428	~1	15.62	0.00	11.95	7.19	628.92	0.28	30.40	-74.7	clear
									* 12.1 HACH		
					LCA 11/28						

* Hach turbidity readings
INITIAL 29.0
PURGE 17.3
9:00 12.0
12:00 12.1

*purged for 9 mins before beginning test

* stopped test @ 15 min disregard 15 min mark (AT already unplugged)

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vistra - Vermillion
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1530
Field Personnel: Michael Davis / Kyle Heimstead
Finish Date: 11/28/23 Time:

WELL INFORMATION

Well ID: VER-21
Casing ID: 2 Inches
Screen Interval: 104-109
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low-Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify below)

PURGE INFORMATION

Purge Method: [ ] Bailer [x] Pump
Bailer Type: n/a
Pump Type and Serial #: QED MP50
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	92.25	1530	97.25	1559
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: [ ] Well Casing [ ] Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? [ ] Yes [ ] No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1540	0.48	95.15	2.90	11.26	7.51	659.66	2.19	* 13.4	-66.8	Clear
purge	1543	0.64	96.22	1.12	11.54	7.57	647.74	0.5570	* 7.80	-102.2	
	1546	0.80	96.50	0.28	11.18	7.59	646.74	0.55	* 6.62	-115.2	
	1549	0.96	96.73	0.23	11.21	7.60	646.11	0.51	* 6.38	-122.8	
	1553	1.12	96.91	0.18	11.07	7.62	645.18	0.49	* 7.28	-130.0	
	1556	1.28	97.10	0.20	11.10	7.62	644.20	0.45	* 6.85	-134.6	
	1559	1.44	97.25	0.15	11.14	7.63	643.60	0.42	* 7.42	-138.2	
(dup)	~~1602~~										

Purged for 9 minutes prior to initial reading above (1539-1540)

Sample collected at: 1603

* HACH measurement

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VISTRA - VERMILLION
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1200
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: 11/28/23 Time: 1248

WELL INFORMATION

Well ID: VER_22
Casing ID: 2 Inches
Screen Interval: 80-100
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED 50 mp2
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 120 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A	1152		
Groundwater	56.15	~~1144~~ (mp2)	58.81	1245
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1210	0.30	57.39	1.24	10.94	7.55	745.78	4.48	* 1204	29.2	Slightly Turbid
purge	1215	0.45	57.75	0.36	See	visible	file		* 7.57		
	1220	0.60	57.93	0.18					* 8.07		↓
	1225	0.75	58.10	0.17					* 5.61		Clear
	1230	0.90	58.27	0.17					* 5.44		
	1235	1.05	58.45	0.18					* 4.67		
	1240	1.20	58.65	0.20					* 3.87		
	1245	1.25	58.81	0.16	11.37	7.51	789.93	0.77	* 3.94	-7.9	↓

SAMPLE TIME = 1248

* HACH Reading

Revised 12/21: CJC

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1500
Field Personnel: LCA SRK
Finish Date: Time: 1609

WELL INFORMATION

Well ID: 354
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/MIN

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	15.23	1500	15.44	1609
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1500	0.0	15.23	NA	10.13	7.24	695.52	0.44	254.86	-146.4	clear
purge	1506	↓	15.44	0.21	10.24	7.26	846.60	0.25	276.31	-163.1	clear
Sample	1509	~1	15.44	0.00	9.99	7.26	837.07	0.24	294.96	-166.3	clear
									& 64.2 HACH		
					LCA 11/28						

Hach turbidity readings
INITIAL 70.4
PURGE 73.3
9:00 64.2

*purged for 9 mins then started test

010

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 0934
Field Personnel: LCA SVK
Finish Date: Time:

WELL INFORMATION

Well ID: 36
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	15.07	0934		
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0934	0.0	15.07	NA	10.23	7.33	1,679.7	0.16	270.0	-141.6	cloudy
purge	0940				10.30	7.52	1,646.8	8.15	360.13	-145.5	cloudy
				FLASH	Freeze	-	WILL	RETURN			

* water line flash freezing for ~1 hr

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1539
Field Personnel: LCA SAK
Finish Date: Time: 1548

WELL INFORMATION

Well ID: 36
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 ml/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	15.07	1539	15.39	1548
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1539	0.0	15.07	NA	11.73	7.29	1,688.3	0.84	482.29	-130.7	clear
purge	1545	↓	↓	↓	11.70	7.28	1,700.8	0.81	340.62	-132.5	clear
sample	1548	~1	15.39	0.32	11.80	7.28	1,706.2	0.73	267.03	-132.8	clear
									*80.4		
									* HACH		
					LCA 11/28						

* HACH turbidity readings *
INITIAL 89.0
PURGE 72.0
* 9:00 80.4

* purged for 9 mins before beginning test

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion | Client:
Project Number: | Task #: | Start Date: 11/28/23 | Time: 0823
Field Personnel: LCA SK | Finish Date: | Time: 0844

WELL INFORMATION

Well ID: 37
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☐ Pump
Bailer Type: n/a
Pump Type and Serial #: Bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: ~200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	9.37	0823	9.90	0844
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0823	0.0	9.37	NA	10.05	7.12	1,271.4	4.43	13.47	102.1	clear
purge	0829		9.74	0.37	9.25	6.98	1,254.5	0.85	31.47	-106.3	clear
			9.90	0.16							
				0.00			↓	↓	↓		
							data	in vn	sitn		
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
sample	0844	~1	9.90	0.00	9.15	7.11	1,275.7	0.49	16.89	-160.9	clear

003

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion
Client:
Project Number:
Task #:
Start Date: 11/28/23 Time: 1204
Field Personnel: LCA SVK
Finish Date: Time: 1219

WELL INFORMATION

Well ID: 38
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 ml/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	8.65	1204	8.86	1219
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1204	0.0	8.65	NA	9.85	7.24	781.15	2.48	4.71	-70.3	clear
purge	1210	↓	8.86	0.21	11.00	7.20	784.88	1.10	61.59	-133.6	clear
	↓		↓	0.00	↓	↓	↓	↓	↓	↓	↓
				↓		↓	↓	↓			
						data in via SITE					
						↓	↓	↓	↓	↓	↓
sample	1219	~1	8.86	0.00	11.51	7.15	768.24	0.72	*10.0	-152.7	clear

Hach turbidity reading: * 10.00 ↓ clear water

006 duplicate 007 (1224)

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion | Client:
Project Number: | Task #: | Start Date: 11/28/23 Time: 1002
Field Personnel: LCA SVK | Finish Date: Time: 1026

WELL INFORMATION

Well ID: 42
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	27.16	1002	27.41	1026
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #: | Water Quality Probe Type and Serial #:

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1002	0.0	27.16	NA	7.85	7.64	769.76	4.67	13.7	-118.0	clear
purge	1008	↓	27.41	0.25	8.34	7.59	854.92	2.70	26.5	-122.0	clear
	↓		↓	0.00	↓	↓	↓	↓	17.2	↓	↓
				↓		↓	↓	↓	OVER.		
						data	in vu Sitin		↓		
						↓	↓	↓			
Sample	1026	~1	27.41	0.00	9.78	7.64	848.91	0.24	35.15	-183.4	clear

004 * USING HACH METER → aquatroll readings in Vusitin

↓

began reading overrange @ 12 min. mark?
followed stabilization on AT readings → water was clear

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion | Client:
Project Number: | Task #: | Start Date: 11/28 | Time: 1102
Field Personnel: LCA SK | Finish Date: | Time: 1117

WELL INFORMATION

Well ID: 43
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low-Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify below)

PURGE INFORMATION

Purge Method: [ ] Bailer [x] Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	17.28	1102	18.07	1117
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: [ ] Well Casing [ ] Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? [ ] Yes [ ] No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1102	0.0	17.28	NA	8.38	7.74	945.30	7.39	4.50	-106.2	clear
purge	1108	↓	18.01	0.73	10.43	7.41	1,005.7	0.87	130.77	-130.4	clear
	↓	↓	18.07	0.06	↓				↓	↓	↓
	↓	↓	18.07	0.00	↓	data in vm	site	↓	↓	↓	↓
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
sample	1117	~1	18.07	0.00	9.82	7.43	998.97	0.67	* 13.3	-152.1	clear

* HACH readings *
INITIAL 10.0
PURGE 17.3

9:00 LCA 25.4
12:00 LCA [redacted] 22.5
15:00 13.3

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermillion
Client: Vistra
Project Number:
Task #:
Start Date: 11/28/23 Time: 0806
Field Personnel: Michael Davis, Kyle Heimstead
Finish Date: 11/28/23 Time: 0914

WELL INFORMATION

Well ID: VER_103R
Casing ID: 2 Inches
Screen Interval: 155-165
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low-Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify below)

PURGE INFORMATION

Purge Method: [ ] Bailer [x] Pump
Bailer Type: n/a
Pump Type and Serial #: QED MP50
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 170 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	138.39	0756	142.55	0844
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: [ ] Well Casing [ ] Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? [ ] Yes [ ] No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	08		138.39								
purge	0824	0.75	140.49	-2.1							
	0819	0.47	141.43	-0.94	10.76	7.11	2,219.9	4.31	6.71*	230.1	Clear
	0824	0.69	141.71	-0.28		saved	in Vusitu	Flit	5.21*	saved in Vusitu	
	0829	0.91	142.29	-0.58					2.95*		
	0834	1.13	142.19	+0.10					2.26*		
	0839	1.35	142.29	-0.10					1.87*		
	0844	1.57	142.55	-0.26					1.80*		

Sample collected 0915

Second page on back →

*HACH measurement

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VERMILION
Client:
Project Number:
Task #:
Start Date: 11/28/2023 Time: 0806
Field Personnel: MICHAEL DAVIS / KYLE HELMSTEAD
Finish Date: 11/28/2023 Time: 09

WELL INFORMATION

Well ID: VER_103
Casing ID: 2 inches

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify):

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
PURGE 0849	0849	1.79	142.83	-0.26	10.35	7.13	2237.4	3.66	* 1.52	253.5	CLEAR
	0854	2.01	143.11	-0.28	SEE	VOSITO FILE			* 1.15		CLEAR
	0859	2.23	143.55	-0.44					* 1.00		CLEAR
	0804	2.45	143.84	-0.29					* 1.54		CLEAR
	0809	2.67	144.02	-0.38					* 0.55		CLEAR
	0914	2.89	144.19	-0.17	10.22	7.15	2229.4	2.67	* 0.70	226.0	CLEAR

NOTES (continued)

SAMPLE TIME = 0915

second page of VER_103

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing
na - Not Applicable
nm - Not Measured
ORP - Oxidation Reduction Potential
SEC - Specific Electrical Conductance
SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

* HACH TURBIDITY METER - LAMOTTE 2020T

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion Client:

Project Number: Task #: Start Date: 11/29/23 Time: 0958

Field Personnel: LCA SJK Finish Date: Time: 1007

WELL INFORMATION

Well ID: 02

Casing ID: Inches

Screen Interval:

Borehole Diameter: Inches

Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☐ Pump

Bailer Type: n/a

Pump Type and Serial #: bladder

Tube/Pump Intake Depth:

Stabilized Pumping Rate: 200 ml/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	19.59	0958	20.20	1007
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole

Volume Per Foot:

Standing Water Column: NA feet

1 Well Volume: Gallons 3 Well Volumes: Gallons

5 Well Volumes: Gallons 10 Well Volumes: Gallons

Total Volumes Produced: Gallons

Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #: Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0958	0.0	19.59	NA	11.65	7.99	935.08	0.94	4.87	-102.6	clear
purge	1004	↓	20.20	0.61	12.32	8.02	941.84	0.76	0.00	-114.4	clear
sample	1007	≈0.5	20.20	0.00	12.57	8.00	940.92	0.69	0.00	-117.6	clear
									*2.31		
									March		
					LCA 11/29						

0:00
6:00
9:00

* Mean turbidity readings *
initial 5.16
purge 3.02
9:00 2.31

* duplicate sample (10:12)

* purged for 9 mins before beginning test

* stability achieved 3:00-9:00 see data in vusitu

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 0749
Field Personnel: LCA SK
Finish Date: Time: 0828

WELL INFORMATION

Well ID: 03R
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: Bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 100 ml/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	9.31	0749	9.38	0828
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0749	0.0	9.31	NA	11.16	7.41	1,330.1	0.79	117.5 (6 LCA)	-63.7	clear
purge	0754	↓	9.38	0.07	11.70	7.45	1,349.7	0.45	147.2 (6 LCA)	-105.0	clear
	↓		↓	0.00	↓	↓			↓	↓	↓
				↓			data in vm sim				
	0822				10.96	7.54	1,386.0	0.47	190.01	-127.0	clear
	0825	↓	↓	↓	10.94	7.54	1,390.0	0.41	155.44	-128.8	clear
Sample	0828	~1	9.38	0.00	11.01	7.55	1,392.3	0.39	149.00	-130.3	clear

* High turbidity readings *
initial 35.2
purge 45.0
9:00 49.8
12:00 50.3
15:00 43.3
18:00 42.5
21:00 46.9
24:00 43.5
27:00 39.9 FINAL

* purged for 9 mins before beginning test

* disregard 12 min interval on test (15 min - 27 min mark) (low-flow cell issues on aquatroll, had to unplug)

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 0948
Field Personnel: LCA SK
Finish Date: Time: 0957

WELL INFORMATION

Well ID: 07R
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: peri pump
Tube/Pump Intake Depth:
Stabilized Pumping Rate: NA

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	16.31	0948	16.31	0957
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0948		16.31								
purge	0957										
							NA 11/29				

* NO sample taken → peri pump tubing clogs with iron bacteria.

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 0842
Field Personnel: LCA SVK
Finish Date: Time: 0857

WELL INFORMATION

Well ID: JBR
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: ~~bladder~~ peri
Tube/Pump Intake Depth: 14.5 ft
Stabilized Pumping Rate: 150 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	15.07	0842	15.17	0857
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0842	0.0	15.07	NA	11.22	7.45	1,529.2	0.39	8.92	-106.2	clear
purge	0848	↓	15.17	0.10	11.70	7.85	1,525.0	0.26	3.07	-126.2	↓
	0851		↓	↓	11.55	7.98	1,523.2	0.21	0.00	-131.8	
	0854	↓			11.21	8.04	1,523.9	0.21	0.00	-134.8	↓
sample	0857	~0.5	15.17	0.00	11.42	8.10	1,519.3	0.20	0.00	-137.8	clear
									* 1.18 HACH		
					LCA 11/29						

* HACH turbidity readings *
initial 4.67
purge 2.13
9:00 1.97
12:00 1.40
15:00 1.18 *

* purged for 9 mins before beginning test

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VISTRA - Vermillion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 0910
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: 11/29/23 Time: 1020

WELL INFORMATION

Well ID: VER-16A
Casing ID: 2 Inches
Screen Interval: 21.8-41.8
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED MP50 / Bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 120 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	10.66	0910	13.97	0946
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0928	0.35	13.20	2.54	10.01	7.69	1,407.8	2.53	* 11.4	-78.0	clear
purge	0934	0.45	13.31	0.11	9.94	7.66	1,317.8	2.71	* 7.35	-107.2	↑
	0937	0.55	13.55	0.24	10.77	7.65	1,352.2	0.70	* 5.56	-115.2	↑
	0940	0.65	13.70	0.15	10.84	7.65	1,328.8	0.52	* 5.37	-118.9	↑
	0943	0.75	13.86	0.16	10.86	7.65	1,316.3	0.45	* 3.88	-120.7	↑
	0946	0.85	13.97	0.11	10.86	7.66	1,313.5	0.44	* 4.09	-122.5	↑
(final)	~~0949~~										

Purged for 19 min prior to initial reading above. (0920-0939)

Sample Time: 0950

* HACH Reading

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vistra - Vermillion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 0735
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: 11/29/23 Time: 0905

WELL INFORMATION

Well ID: VER_35D
Casing ID: 2 Inches
Screen Interval: 45-35
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low-Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify below)

PURGE INFORMATION

Purge Method: [ ] Bailer [x] Pump
Bailer Type: n/a
Pump Type and Serial #: ~~QED MP56~~ US Environ. Peripump
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 120 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	10.90	0735	14.81	0803
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: [ ] Well Casing [ ] Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? [ ] Yes [ ] No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0748	0.16	12.16	1.26	10.07	7.25	5,491.8	3.23	*7.15	-13.6	Clear
purge	0751	0.26	12.74	0.58	9.79	7.34	5,481.0	0.32	*4.21	-88.7	
	0754	0.36	13.07	0.33	9.95	7.34	5,514.8	0.66	*5.32	-104.1	
	0757	0.46	13.70	0.63	9.96	7.34	5,501.9	0.46	*8.41	-118.5	
	0800	0.56	14.28	0.58	10.04	7.34	5,486.3	0.46	*4.76	-123.3	
	0803	0.66	14.81	0.53	10.07	7.34	5,487.0	0.46	*6.99	-126.7	
(dup)	~~0806~~										
(dup)	~~0807~~										

Purged for 5 minutes prior to initial reading above. (no dedicated pump)

Sample Time: 0807 FD 05/2

* HACH Reading

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion | Client:
Project Number: | Task #: | Start Date: 11/29/23 Time: 1048
Field Personnel: LCA SK | Finish Date: 11/29/23 Time: 1057

WELL INFORMATION

Well ID: 40
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: peri pump
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 150 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	14.96	1048	15.03	1057
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #: | Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1048	0.0	14.96	NA	12.50	6.60	4,346.8	0.25	5.22	-85.8	clear
purge	1054	↓	↓	↓	12.20	6.57	4333.6	0.20	9.66	-90.7	clear
sample	1057	~0.5	15.03	0.07	11.89	6.58	4328.5	0.18	12.22 *6.20 HACH	-91.7	clear

11/29

* Hach turbidity readings *
initial 5.50
purge 5.94
9:00 6.20 *

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion | Client:
Project Number: | Task #: | Start Date: 11/29/23 Time: 1201
Field Personnel: LCA SUK | Finish Date: 11/29/23 Time: 1210

WELL INFORMATION

Well ID: 70S
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	NA			
Groundwater	15.57	1201	15.68	1210
DNAPL	NA			
Casing Base	NA			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons | 3 Well Volumes: Gallons
5 Well Volumes: Gallons | 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1201	0.0	15.57	NA	12.21	7.15	1,538.8	0.10	19.04	-46.3	clear
purge	1207	↓	↓	↓	12.19	7.16	1,541.6	0.10	0.23	-41.3	clear
Sample	1210	~0.5	15.68	0.11	12.27	7.16	1,545.2	0.07	1.06	-39.2	clear
									*2.88 HACH		
						LCA 11/29					

* Hach turbidity readings *
INITIAL 6.50
PURGE 3.17
9:00 2.88

* purged for 9 mins before beginning test

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Vermilion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 1234
Field Personnel: LCA SK
Finish Date: Time: 1307

WELL INFORMATION

Well ID: 70D
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 200 mL/MIN

DEPTH MEASUREMENTS

	INITIAL Depth FT BTOC	INITIAL Time (24-Hour)	FINAL Depth FT BTOC	FINAL Time (24-Hour)
LNAPL	NA	—	—	—
Groundwater	38.95	1234	46.39	1307
DNAPL	NA	—	—	—
Casing Base	NA	—	—	—

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: NA feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1234	0.0	38.95	NA	11.79	7.16	3,637.5	0.63	72.44	-48.7	clear
purge	1240	↓	39.57	↓	11.84	7.07	3,503.8	0.41	26.65	-31.5	clear
	1243		40.19		↓	↓	↓	↓	↓	↓	↓
	1246		40.81								
	1249		41.43				data	in	vu situ		
	1252		42.05								
	1255		42.67								
	1258		43.29		↓	↓	↓	↓	↓	↓	↓
	1301	↓	45.17	↓	12.02	6.98	2882.6	2.17	38.4	-10.5	clear

* Hach turbidity readings *
INITIAL 2[illegible]3.9
PURGE 1[illegible]2.4 LCA

9:00	9.88	21:00	12.00
12:00	6.67	24:00	14.40
15:00	11.69	27:00	11.20
18:00	11.00	30:00	11.62
		33:00	

* purged for 9 mins before beginning test

continue to second page

01/09/24

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: _____ Client: _____

Project Number: _____ Task #: _____ Start Date: _____ Time: _____

Field Personnel: _____ Finish Date: _____ Time: _____

WELL INFORMATION

Well ID: 70D

Casing ID: _____ inches

EVENT TYPE

☐ Well Development ☐ Low-Flow / Low Stress Sampling

☐ Well Volume Approach Sampling ☐ Other (Specify):

WATER QUALITY INDICATOR PARAMETERS (continued)

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	1304	↓	46.01	↓	12.06	6.98	[redacted]	2.39	42.15	-8.2	clear
sample	1307	~1	46.39	7.44	12.02	6.98	2858.2	2.67	51.41	-5.7	clear
					LCA 11/29						

NOTES (continued)

Second payout 70D

ABBREVIATIONS

Cond. - Actual Conductivity
FT BTOC - Feet Below Top of Casing
na - Not Applicable
nm - Not Measured
ORP - Oxidation-Reduction Potential
SEC - Specific Electrical Conductance
SU - Standard Units
Temp - Temperature
°C - Degrees Celcius

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VISTRA - Vermillion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 0958
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: Time:

WELL INFORMATION

Well ID: VER_71D
Casing ID: 2 Inches
Screen Interval: ~~61-66~~ 30-40
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED MP50 / Bladder
Tube/Pump Intake Depth: 100
Stabilized Pumping Rate: ~~170~~ 150 ml/min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	39.65	0958	40.56+	1034
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1031	0.31	40.47	0.82	11.93	7.05	3,953.7	3.91	*10.26	33.0	clear
purge	1034	0.41	40.56+	+	11.45	7.03	3,993.3	1.44	*12.40	34.9	
	1037	0.51	+	+	11.40	7.03	4,001.4	1.00	*13.7	37.1	
	1040	0.59	+	+	11.22	7.04	4,005.6	0.84	*12.3	38.7	
	1043	0.67	+	+	11.30	7.05	3999.7	0.72	* 10.19	40.3	
	1046	0.75	+	+	11.17	7.07	3,999.5	0.63	* 6.09	41.3	
	1049	0.83	+	+	11.17	7.08	3,997.0	0.57	* 4.26	42.2	
	1052	0.91	+	+	11.36	7.01	3,994.9	0.55	* 3.88	43.1	

Purged 9 min prior to initial reading above. (1022-1031)
Purge rate lowered to 100 ml/min due to drawdown at 1037
Sample time: 1055 - one L filled. -prior to well going dry Returned @ 1210 to fill the rest

* HACH measurement
+ Top of pump

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: VISTRA - Vermillion
Client:
Project Number:
Task #:
Start Date: 11/29/23 Time: 1137
Field Personnel: MICHAEL DAVIS / KYLE HEIMSTEAD
Finish Date: 11/29/23 Time: 1215

WELL INFORMATION

Well ID: VER-NED1
Casing ID: 2 Inches
Screen Interval: 532 - 542 MD
Borehole Diameter: ~15 7/8 Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #:
Tube/Pump Intake Depth:
Stabilized Pumping Rate: 300 mL / min

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL	N/A			
Groundwater	4.76	1137		
DNAPL	N/A			
Casing Base	N/A			

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
Standing Water Column: feet
1 Well Volume: Gallons 3 Well Volumes: Gallons
5 Well Volumes: Gallons 10 Well Volumes: Gallons
Total Volumes Produced: Gallons
Well Purged Dry? ☐ Yes ☐ No

Water Level Serial #:
Water Quality Probe Type and Serial #

WATER QUALITY INDICATOR PARAMETERS

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1149	0.71	5.10	0.34	14.83	7.99	2,244.0	0.23	*4.46	-144.9	clear
purge	1152	0.95	5.11	0.01	14.86	8.01	2,290.3	0.14	*3.84	-159.5	
	1155	1.19	5.15	0.04	14.86	8.02	2,341.7	0.12	*3.48	-169.0	
	1158	1.43	5.15	0.00	14.85	8.03	2,374.6	0.11	*1.89	-174.8	
	1201	1.67	5.15	0.00	14.88	8.04	2,400.7	0.10	*2.19	-178.0	

Purged 4 min prior to initial reading above. (1140-1149)

Sample time: 1205

* HACH measurement

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	454859
Created	11/28/2023

Sensor: Conductivity

Serial Number	983484
Last Calibrated	11/28/2023

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.937
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	6,227.7 µS/cm
Specific Conductivity	7,903.8 µS/cm

Post Measurement

Actual Conductivity	6,303.5 µS/cm
Specific Conductivity	8,000.0 µS/cm

Sensor: RDO

Serial Number	1071837
Last Calibrated	11/20/2023

Calibration Details

Slope	1.162076
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.78 mg/L
Pre Measurement	100.10 %Sat
Post Measurement	100.00 %Sat
Temperature	14.01 °C
Barometric Pressure	1,004.0 mbar

Sensor: pH/ORP

Serial Number	967640
Last Calibrated	11/28/2023

Calibration Details

Calibration Point 1

pH of Buffer	7.03 pH
pH mV	0.0 mV
Temperature	13.90 °C

Pre Measurement

pH	6.99 pH
pH mV	-0.1 mV

Post Measurement

pH	7.03 pH
pH mV	0.0 mV

Slope and Offset 1

Slope	-56.96 mV/pH
Offset	1.7 mV

ORP

ORP Solution	Quick-Cal
Offset	15.9 mV
Temperature	13.90 °C
Pre Measurement	238.6 mV
Post Measurement	240.3 mV

Sensor	**Turbidity**
Serial Number	1018036
Last Calibrated	11/16/2023

Calibration Details

Slope	1.097777
Offset	0.03 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	112.30 NTU
Post Measurement	124.00 NTU

Sensor	**Barometric Pressure**
Serial Number	454859
Last Calibrated	11/16/2023

Calibration Details

Offset	0.69 mm Hg
Pre Measurement	14.33 psi
Post Measurement	14.32 psi

Sensor	**Pressure**
Serial Number	760182
Last Calibrated	11/16/2023

Calibration Details

Zero Offset	-0.01 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	0.01 psi
Post Measurement	0.00 psi

Calibration Report

Instrument	Aqua TROLL 600 Vented
Serial Number	454859
Created	11/29/2023

Sensor	**Conductivity**
Serial Number	983484
Last Calibrated	11/29/2023

Calibration Details

TDS Conversion Factor (ppm)	0.65
Cell Constant	0.941
Reference Temperature	25.00 °C

Pre Measurement

Actual Conductivity	6,724.9 µS/cm
Specific Conductivity	7,962.4 µS/cm

Post Measurement

Actual Conductivity	6,756.6 µS/cm
Specific Conductivity	8,000.0 µS/cm

Sensor	**RDO**
Serial Number	1071837
Last Calibrated	11/20/2023

Calibration Details

Slope	1.162076
Offset	0.00 mg/L

Calibration point 100%

Concentration	8.78 mg/L
Pre Measurement	100.10 %Sat
Post Measurement	100.00 %Sat
Temperature	14.01 °C
Barometric Pressure	1,004.0 mbar

Sensor	**pH/ORP**
Serial Number	967640
Last Calibrated	11/29/2023

Calibration Details

Calibration Point 1

pH of Buffer	7.02 pH
pH mV	0.6 mV
Temperature	16.86 °C

Pre Measurement

pH	7.02 pH
pH mV	0.5 mV

Post Measurement

pH	7.02 pH
pH mV	0.5 mV

Slope and Offset 1

Slope	-57.55 mV/pH
Offset	1.7 mV

ORP

ORP Solution	Quick-Cal
Offset	17.1 mV
Temperature	16.86 °C
Pre Measurement	234.6 mV
Post Measurement	235.8 mV

Sensor	**Turbidity**
Serial Number	1018036
Last Calibrated	11/16/2023

Calibration Details

Slope	1.097777
Offset	0.03 NTU

Calibration Point 1

Pre Measurement	0.00 NTU
Post Measurement	0.00 NTU

Calibration Point 2

Pre Measurement	112.30 NTU
Post Measurement	124.00 NTU

Sensor	**Barometric Pressure**
Serial Number	454859
Last Calibrated	11/16/2023

Calibration Details

Offset	0.69 mm Hg
Pre Measurement	14.33 psi
Post Measurement	14.32 psi

Sensor	**Pressure**
Serial Number	760182
Last Calibrated	11/16/2023

Calibration Details

Zero Offset	-0.01 psi
Reference Depth	0.00 ft
Reference Offset	0.00 psi
Pre Measurement	0.01 psi
Post Measurement	0.00 psi

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Brian Voelker
Vistra Energy Corp
133 S 4th, Suite 206
Springfield, Illinois 62701

Generated 01/09/24 11:31:21

JOB DESCRIPTION

VER-23Q4
VER_845_912_RAD

JOB NUMBER

500-243025-6

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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Table of Contents

Case Narrative

Client: Vistra Energy Corp
Project: VER-23Q4

Job ID: 500-243025-6

Job ID: 500-243025-6 — Eurofins Chicago

Job Narrative
500-243025-6

Receipt
The samples were received on 11/28/23 11:23. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 12 coolers at receipt time were 1.6º C, 2.3º C, 2.4º C, 2.5º C, 2.6º C, 2.8º C, 3.2º C, 3.4º C, 3.7º C, 4.2º C, 5.2º C and 5.7º C.

Receipt Exceptions

Per COC: Well dry, sample volume truncated. COC not marked for all analyses requested on the SAR-2X. Logged in per SAR-2X, save Radium analyses due to insufficient sample volume for Rad analysis. VER-071&D (500-243025-26)
Client replied to please analyze sample for total metals and inorganic 845 parameter list, and as sample volume allows including major ions (alkalinity, magnesium, potassium, sodium). A revised COC was provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-010 — Lab Sample ID: 500-243025-5

No Detections.

Client Sample ID: VER-022 — Lab Sample ID: 500-243025-9

No Detections.

Client Sample ID: VER-016A — Lab Sample ID: 500-243025-21

No Detections.

Client Sample ID: VER-035&D — Lab Sample ID: 500-243025-22

No Detections.

Client Sample ID: VER-070#S — Lab Sample ID: 500-243025-24

No Detections.

Client Sample ID: VER-070&D — Lab Sample ID: 500-243025-25

No Detections.

Client Sample ID: VER-NED1 — Lab Sample ID: 500-243025-27

No Detections.

Client Sample ID: VER-EB-1 — Lab Sample ID: 500-243025-28

No Detections.

Client Sample ID: VER-035&D_FD — Lab Sample ID: 500-243025-30

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-243025-5	VER-010	Water	11/28/23 13:40	11/29/23 11:15
500-243025-9	VER-022	Water	11/28/23 12:48	11/29/23 11:15
500-243025-21	VER-016A	Water	11/29/23 09:50	11/30/23 10:09
500-243025-22	VER-035&D	Water	11/29/23 08:07	11/30/23 10:09
500-243025-24	VER-070#S	Water	11/29/23 12:10	11/30/23 10:09
500-243025-25	VER-070&D	Water	11/29/23 13:07	11/30/23 10:09
500-243025-27	VER-NED1	Water	11/29/23 12:05	11/30/23 10:09
500-243025-28	VER-EB-1	Water	11/29/23 13:15	11/30/23 10:09
500-243025-30	VER-035&D_FD	Water	11/29/23 08:12	11/30/23 10:09

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-010

Date Collected: 11/28/23 13:40
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-5

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.716		0.212	0.222	1.00	0.172	pCi/L	12/01/23 09:57	01/02/24 14:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*12/01/23 09:57*	*01/02/24 14:24*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.36		0.584	0.597	1.00	0.770	pCi/L	12/01/23 10:01	12/29/23 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*12/01/23 10:01*	*12/29/23 12:00*	*1*
Y Carrier	*81.5*		*30 - 110*	*12/01/23 10:01*	*12/29/23 12:00*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	2.07		0.621	0.637	5.00	0.770	pCi/L		01/02/24 16:47	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-022
Date Collected: 11/28/23 12:48
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-9
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.341**		0.129	0.133	1.00	0.129	pCi/L	12/01/23 09:57	01/02/24 14:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*12/01/23 09:57*	*01/02/24 14:24*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.530	U	0.382	0.385	1.00	0.586	pCi/L	12/01/23 10:01	12/29/23 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*12/01/23 10:01*	*12/29/23 12:00*	*1*
Y Carrier	*84.1*		*30 - 110*	*12/01/23 10:01*	*12/29/23 12:00*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.870**		0.403	0.407	5.00	0.586	pCi/L		01/04/24 10:11	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-016A

Date Collected: 11/29/23 09:50
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-21

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.689**		0.227	0.235	1.00	0.217	pCi/L	12/04/23 09:27	12/29/23 22:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*30 - 110*	*12/04/23 09:27*	*12/29/23 22:05*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.438	U	0.356	0.358	1.00	0.548	pCi/L	12/04/23 09:32	12/28/23 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*30 - 110*	*12/04/23 09:32*	*12/28/23 11:40*	*1*
Y Carrier	*73.6*		*30 - 110*	*12/04/23 09:32*	*12/28/23 11:40*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**1.13**		0.422	0.428	5.00	0.548	pCi/L		01/02/24 16:47	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-035&D

Date Collected: 11/29/23 08:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-22

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.283		0.168	0.170	1.00	0.226	pCi/L	12/04/23 09:27	12/29/23 22:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*30 - 110*	*12/04/23 09:27*	*12/29/23 22:06*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.106	U	0.264	0.265	1.00	0.468	pCi/L	12/04/23 09:32	12/28/23 11:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*30 - 110*	*12/04/23 09:32*	*12/28/23 11:40*	*1*
Y Carrier	*80.7*		*30 - 110*	*12/04/23 09:32*	*12/28/23 11:40*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.389	U	0.313	0.315	5.00	0.468	pCi/L		01/02/24 16:47	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-070#S

Date Collected: 11/29/23 12:10
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-24

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0773	U	0.0858	0.0861	1.00	0.138	pCi/L	12/04/23 09:21	01/02/24 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.3*		*30 - 110*	*12/04/23 09:21*	*01/02/24 21:13*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.160	U	0.266	0.266	1.00	0.455	pCi/L	12/04/23 09:26	12/29/23 11:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.3*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:44*	*1*
Y Carrier	*82.2*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:44*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.237	U	0.279	0.280	5.00	0.455	pCi/L		01/03/24 16:36	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-070&D

Date Collected: 11/29/23 13:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-25

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.375**		0.154	0.158	1.00	0.161	pCi/L	12/04/23 09:21	01/02/24 21:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*12/04/23 09:21*	*01/02/24 21:14*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.514	U	0.355	0.358	1.00	0.525	pCi/L	12/04/23 09:26	12/29/23 11:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:44*	*1*
Y Carrier	*86.4*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:44*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.889**		0.387	0.391	5.00	0.525	pCi/L		01/03/24 16:36	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-NED1
Date Collected: 11/29/23 12:05
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-27
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.193**		0.119	0.120	1.00	0.151	pCi/L	12/04/23 09:21	01/02/24 21:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*30 - 110*	*12/04/23 09:21*	*01/02/24 21:15*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.460	U	0.373	0.375	1.00	0.576	pCi/L	12/04/23 09:26	12/29/23 11:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:44*	*1*
Y Carrier	*86.0*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:44*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.653**		0.392	0.394	5.00	0.576	pCi/L		01/03/24 16:36	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-EB-1

Date Collected: 11/29/23 13:15
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-28

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0581	U	0.0693	0.0695	1.00	0.112	pCi/L	12/04/23 09:21	01/02/24 21:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.0*		*30 - 110*	*12/04/23 09:21*	*01/02/24 21:16*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.362	U	0.315	0.316	1.00	0.495	pCi/L	12/04/23 09:26	12/29/23 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.0*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:57*	*1*
Y Carrier	*85.2*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:57*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.420	U	0.323	0.324	5.00	0.495	pCi/L		01/03/24 16:36	1

Client Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-035&D_FD

Date Collected: 11/29/23 08:12
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-30

Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.116	U	0.0877	0.0883	1.00	0.122	pCi/L	12/04/23 09:21	01/02/24 21:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*30 - 110*	*12/04/23 09:21*	*01/02/24 21:16*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.628**		0.388	0.392	1.00	0.575	pCi/L	12/04/23 09:26	12/29/23 11:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:57*	*1*
Y Carrier	*83.0*		*30 - 110*	*12/04/23 09:26*	*12/29/23 11:57*	*1*

Method: TAL-STL Ra226_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	**0.745**		0.398	0.402	5.00	0.575	pCi/L		01/03/24 16:36	1

Definitions/Glossary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Rad

Prep Batch: 639127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	PrecSep-21	
500-243025-9	VER-022	Total/NA	Water	PrecSep-21	
MB 160-639127/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-639127/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-243025-9 MS	VER-022_MS	Total/NA	Water	PrecSep-21	
500-243025-9 MSD	VER-022_MSD	Total/NA	Water	PrecSep-21	

Prep Batch: 639128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-5	VER-010	Total/NA	Water	PrecSep_0	
500-243025-9	VER-022	Total/NA	Water	PrecSep_0	
MB 160-639128/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-639128/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-243025-9 MS	VER-022_MS	Total/NA	Water	PrecSep_0	
500-243025-9 MSD	VER-022_MSD	Total/NA	Water	PrecSep_0	

Prep Batch: 639335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-24	VER-070#S	Total/NA	Water	PrecSep-21	
500-243025-25	VER-070&D	Total/NA	Water	PrecSep-21	
500-243025-27	VER-NED1	Total/NA	Water	PrecSep-21	
500-243025-28	VER-EB-1	Total/NA	Water	PrecSep-21	
500-243025-30	VER-035&D_FD	Total/NA	Water	PrecSep-21	
MB 160-639335/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-639335/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-243025-30 DU	VER-035&D_FD	Total/NA	Water	PrecSep-21	

Prep Batch: 639336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-24	VER-070#S	Total/NA	Water	PrecSep_0	
500-243025-25	VER-070&D	Total/NA	Water	PrecSep_0	
500-243025-27	VER-NED1	Total/NA	Water	PrecSep_0	
500-243025-28	VER-EB-1	Total/NA	Water	PrecSep_0	
500-243025-30	VER-035&D_FD	Total/NA	Water	PrecSep_0	
MB 160-639336/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-639336/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-243025-30 DU	VER-035&D_FD	Total/NA	Water	PrecSep_0	

Prep Batch: 639337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total/NA	Water	PrecSep-21	
500-243025-22	VER-035&D	Total/NA	Water	PrecSep-21	

Prep Batch: 639338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243025-21	VER-016A	Total/NA	Water	PrecSep_0	
500-243025-22	VER-035&D	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-639127/1-A
Matrix: Water
Analysis Batch: 642706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639127

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1912		0.103	0.104	1.00	0.124	pCi/L	12/01/23 09:57	01/02/24 14:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*12/01/23 09:57*	*01/02/24 14:23*	*1*

Lab Sample ID: LCS 160-639127/2-A
Matrix: Water
Analysis Batch: 642706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639127

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	11.13		1.19	1.00	0.143	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.5*		*30 - 110*

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 642706

Client Sample ID: VER-022_MS
Prep Type: Total/NA
Prep Batch: 639127

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.341		11.4	11.27		1.22	1.00	0.127	pCi/L	96	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*88.6*		*30 - 110*

Lab Sample ID: 500-243025-9 MSD
Matrix: Water
Analysis Batch: 642706

Client Sample ID: VER-022_MSD
Prep Type: Total/NA
Prep Batch: 639127

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.341		11.3	11.57		1.25	1.00	0.123	pCi/L	100	60 - 140	0.12	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*88.8*		*30 - 110*

Lab Sample ID: MB 160-639335/1-A
Matrix: Water
Analysis Batch: 642720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639335

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.006557	U	0.0899	0.0899	1.00	0.174	pCi/L	12/04/23 09:21	01/02/24 21:18	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-639335/1-A
Matrix: Water
Analysis Batch: 642720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639335

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		30 - 110	12/04/23 09:21	01/02/24 21:18	1

Lab Sample ID: LCS 160-639335/2-A
Matrix: Water
Analysis Batch: 642706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639335

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.663		1.05	1.00	0.114	pCi/L	85	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		30 - 110

Lab Sample ID: 500-243025-30 DU
Matrix: Water
Analysis Batch: 642706

Client Sample ID: VER-035&D_FD
Prep Type: Total/NA
Prep Batch: 639335

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.116	U		0.1484		0.104	1.00	0.146	pCi/L			0.17	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	93.0		30 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-639128/1-A
Matrix: Water
Analysis Batch: 642534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639128

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01899	U	0.265	0.265	1.00	0.495	pCi/L	12/01/23 10:01	12/29/23 12:02	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.8		30 - 110	12/01/23 10:01	12/29/23 12:02	1
Y Carrier	83.0		30 - 110	12/01/23 10:01	12/29/23 12:02	1

Lab Sample ID: LCS 160-639128/2-A
Matrix: Water
Analysis Batch: 642534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639128

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.36	10.54		1.37	1.00	0.600	pCi/L	113	75 - 125		

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-639128/2-A
Matrix: Water
Analysis Batch: 642534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639128

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.5		30 - 110
Y Carrier	86.4		30 - 110

Lab Sample ID: 500-243025-9 MS
Matrix: Water
Analysis Batch: 642395

Client Sample ID: VER-022_MS
Prep Type: Total/NA
Prep Batch: 639128

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	0.530	U	9.39	10.60		1.39	1.00	0.506	pCi/L	107	60 - 140

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	88.6		30 - 110
Y Carrier	88.6		30 - 110

Lab Sample ID: 500-243025-9 MSD
Matrix: Water
Analysis Batch: 642395

Client Sample ID: VER-022_MSD
Prep Type: Total/NA
Prep Batch: 639128

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.530	U	9.31	9.532		1.28	1.00	0.458	pCi/L	97	60 - 140	0.40	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	88.8		30 - 110
Y Carrier	89.3		30 - 110

Lab Sample ID: MB 160-639336/1-A
Matrix: Water
Analysis Batch: 642549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639336

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2671	U	0.274	0.275	1.00	0.441	pCi/L	12/04/23 09:26	12/29/23 11:44	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		30 - 110	12/04/23 09:26	12/29/23 11:44	1
Y Carrier	81.9		30 - 110	12/04/23 09:26	12/29/23 11:44	1

Lab Sample ID: LCS 160-639336/2-A
Matrix: Water
Analysis Batch: 642549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639336

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.36	9.553		1.23	1.00	0.423	pCi/L	102	75 - 125

QC Sample Results

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-639336/2-A
Matrix: Water
Analysis Batch: 642549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639336

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		30 - 110
Y Carrier	85.6		30 - 110

Lab Sample ID: 500-243025-30 DU
Matrix: Water
Analysis Batch: 642534

Client Sample ID: VER-035&D_FD
Prep Type: Total/NA
Prep Batch: 639336

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.628			1.107		0.446	1.00	0.562	pCi/L			0.57	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	93.0		30 - 110
Y Carrier	80.0		30 - 110

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-010
Date Collected: 11/28/23 13:40
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639127	KAC	EET SL	12/01/23 09:57
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 14:24
Total/NA	Prep	PrecSep_0			639128	KAC	EET SL	12/01/23 10:01
Total/NA	Analysis	904.0		1	642395	FLC	EET SL	12/29/23 12:00
Total/NA	Analysis	Ra226_Ra228 Pos		1	642740	EMH	EET SL	01/02/24 16:47

Client Sample ID: VER-022
Date Collected: 11/28/23 12:48
Date Received: 11/29/23 11:15

Lab Sample ID: 500-243025-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639127	KAC	EET SL	12/01/23 09:57
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 14:24
Total/NA	Prep	PrecSep_0			639128	KAC	EET SL	12/01/23 10:01
Total/NA	Analysis	904.0		1	642395	FLC	EET SL	12/29/23 12:00
Total/NA	Analysis	Ra226_Ra228 Pos		1	642740	EMH	EET SL	01/04/24 10:11

Client Sample ID: VER-016A
Date Collected: 11/29/23 09:50
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639337	KAC	EET SL	12/04/23 09:27
Total/NA	Analysis	903.0		1	642397	FLC	EET SL	12/29/23 22:05
Total/NA	Prep	PrecSep_0			639338	KAC	EET SL	12/04/23 09:32
Total/NA	Analysis	904.0		1	642353	FLC	EET SL	12/28/23 11:40
Total/NA	Analysis	Ra226_Ra228 Pos		1	642740	EMH	EET SL	01/02/24 16:47

Client Sample ID: VER-035&D
Date Collected: 11/29/23 08:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639337	KAC	EET SL	12/04/23 09:27
Total/NA	Analysis	903.0		1	642397	FLC	EET SL	12/29/23 22:06
Total/NA	Prep	PrecSep_0			639338	KAC	EET SL	12/04/23 09:32
Total/NA	Analysis	904.0		1	642353	FLC	EET SL	12/28/23 11:40
Total/NA	Analysis	Ra226_Ra228 Pos		1	642740	EMH	EET SL	01/02/24 16:47

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-070#S
Date Collected: 11/29/23 12:10
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-24
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639335	KAC	EET SL	12/04/23 09:21
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 21:13
Total/NA	Prep	PrecSep_0			639336	KAC	EET SL	12/04/23 09:26
Total/NA	Analysis	904.0		1	642549	FLC	EET SL	12/29/23 11:44
Total/NA	Analysis	Ra226_Ra228 Pos		1	642915	EMH	EET SL	01/03/24 16:36

Client Sample ID: VER-070&D
Date Collected: 11/29/23 13:07
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639335	KAC	EET SL	12/04/23 09:21
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 21:14
Total/NA	Prep	PrecSep_0			639336	KAC	EET SL	12/04/23 09:26
Total/NA	Analysis	904.0		1	642549	FLC	EET SL	12/29/23 11:44
Total/NA	Analysis	Ra226_Ra228 Pos		1	642915	EMH	EET SL	01/03/24 16:36

Client Sample ID: VER-NED1
Date Collected: 11/29/23 12:05
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-27
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639335	KAC	EET SL	12/04/23 09:21
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 21:15
Total/NA	Prep	PrecSep_0			639336	KAC	EET SL	12/04/23 09:26
Total/NA	Analysis	904.0		1	642549	FLC	EET SL	12/29/23 11:44
Total/NA	Analysis	Ra226_Ra228 Pos		1	642915	EMH	EET SL	01/03/24 16:36

Client Sample ID: VER-EB-1
Date Collected: 11/29/23 13:15
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-28
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639335	KAC	EET SL	12/04/23 09:21
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 21:16
Total/NA	Prep	PrecSep_0			639336	KAC	EET SL	12/04/23 09:26
Total/NA	Analysis	904.0		1	642534	FLC	EET SL	12/29/23 11:57
Total/NA	Analysis	Ra226_Ra228 Pos		1	642915	EMH	EET SL	01/03/24 16:36

Lab Chronicle

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Client Sample ID: VER-035&D_FD

Date Collected: 11/29/23 08:12
Date Received: 11/30/23 10:09

Lab Sample ID: 500-243025-30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639335	KAC	EET SL	12/04/23 09:21
Total/NA	Analysis	903.0		1	642706	FLC	EET SL	01/02/24 21:16
Total/NA	Prep	PrecSep_0			639336	KAC	EET SL	12/04/23 09:26
Total/NA	Analysis	904.0		1	642534	FLC	EET SL	12/29/23 11:57
Total/NA	Analysis	Ra226_Ra228 Pos		1	642915	EMH	EET SL	01/03/24 16:36

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Laboratory: Eurofins St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
903.0	PrecSep-21	Water	Radium-226
904.0	PrecSep_0	Water	Radium-228
Ra226_Ra228 Pos		Water	Radium 226 and 228

Courier Pickup

CA 43125 COC# 4901 05515.001

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 1 of 2

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker Jason Stuckey	Attention	Brian Voelker
Address	10188 E 2150 North Rd	Copy To	Sam Davies samantha davies@vistracorp.com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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

500-243025 COC

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_060_RAD							Residual Chlorine (Y/N)	Project No./ Lab I.D
1	VER-002																												
2	VER-003R																												
3	VER-004																												
4	VER-005			11-27-23	1434		6	3		3							X	X			X								
5	VER-007R																												
6	VER-008R																												
7	VER-010																												
8	VER-016!B																												
9	VER-016A																												
10	VER-017																												
11	VER-020																												
12	VER-021																												
13	VER-022																												
14	VER-034																												
15	VER-035#S																												
16	VER-035&D																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	[signature] / Randall	11/28/23	926	[signature]	11/28/23	0926	
	[signature]	11/28/23	1123	Stephanie Hernandez EEIA	11/28/23	1123	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Reda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/28/23

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

2.5+2.3

Courrier pickup

COC# 1940185515 001

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 2 of 2

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker / Jason Stuckey	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To:	Sam Davies samantha davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner - Dianna Tickner@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

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	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	VER_000	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000_A	VER_000_RAD	Residual Chlorine (Y/N)	Project No./ Lab I D.
1	VER-036																							
2	VER-037																							
3	VER-038																							
4	VER-040																							
2 5	VER-041			11-27-23	1527		6	3		3								X			X	X		
6	VER-042																							
7	VER-043																							
8	VER-070#S																							
9	VER-070&D																							
10	VER-071#S																							
11	VER-071&D																							
3 12	VER-101&			11-27-23	1550		6	3		3							X	X			X	X		
13	VER-103&																							
14	VER-ND3																							
15	VER-NED1																							
16	VER-OED1																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	[signature] / Ramsell	11/28/23	926	Stephanie Hernandez EEIA	11/28/23	1123	

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER	Nate Ruda
SIGNATURE of SAMPLER	[signature]
DATE Signed (MM/DD/YY):	11/28/23

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

Coolers Packed

CHAIN-OF-CUSTODY / Analytical Request Document

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COC# 19401055150 002

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500-243025

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Brian Voelker
Address	10188 E 2150 North Rd	Copy To.	Sam Davies samantha.davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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 #	

500 243025 COC

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

Requested Analysis Filtered (Y/N)

	ITEM #	SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	Ver_000_RAD	VER_000_B	Residual Chlorine (Y/N)	Project No./ Lab I D
	1	VER-002																							
	2	VER-003R																							
4	3	VER-004	GW	6	11/28/23	1315		18	9		9							X	X			X			
	4	VER-005																							
	5	VER-007R																							
	6	VER-008R																							
5	7	VER-010	GW	6	11/28/23	1340		7	3		4								~~X~~	X	X	X	X		
	8	VER-016!B																							
	9	VER-016A																							
6	10	VER-017	GW	6	11/28/23	1500		6	3		3							X	X			X			
7	11	VER-020	GW	6	11/28/23	1428		6	3		3							X	X			X			
8	12	VER-021	GW	6	11/28/23	1603		6	3		3							X	X			X			
9	13	VER-022	GW	6	11/28/23	1248		18	9		9							X		X		X			
10	14	VER-034	GW	6	11/28/23	1509		6	3		3							X	X			X			
	15	VER-035#S																							
	16	VER-035&D																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	Randall	11-29-23	917	[signature]	11/29/23	0917	3.4 → 3.2, 2.7+2.5
Ver-022 MS/MSD, Ver-004 MS/MSD	[signature]	11/29/23	1115	[signature]	11/29/23	1115	5.4+5.2, 3.6+3.4

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER	Nate Ondr		
SIGNATURE of SAMPLER	[signature]	DATE Signed (MM/DD/YY)	11-29-23

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

5.9+5.7

COC#1940105515.002

CHAIN-OF-CUSTODY / Analytical Request Document

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500-243025

Section A Required Client Information		Section B Required Project Information.		Section C Invoice Information	
Company:	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To	Sam Davies samantha.davies@vistracorp.com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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

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	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER-000-RAD	Residual Chlorine (Y/N)	Project No./ Lab I D.
11 1	VER-036	GW	6	11/28/23	1576		6	3		3							X	X			X		
12 2	VER-037	GW	6	11/28/23	0844		6	3		3							X	X			X		
13 3	VER-038	GW	6	11/28/23	1214		6	3		3							X	X			X		
4	VER-040																						
5	VER-041																						
14 6	VER-042	GW	6	11/28/23	1026		6	3		3							X	X			X		
15 7	VER-043	GW	6	11/28/23	1117		6	3		3							X	X			X		
8	VER-070#S																						
9	VER-070&D																						
10	VER-071#S																						
11	VER-071&D																						
12	VER-101&																						
16 13	VER-103&	GW	6	11/28/23	0915		6	3		3							X	X			X		
14	VER-ND3																						
15	VER-NED1																						
16	VER-OED1																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0		11-29-23	0917		11/29/23	0917	
		11/29/23	1115		11/29/23	1115	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Dorn

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11-29-23

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

courier pickup

CHAIN-OF-CUSTODY / Analytical Request Document

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

COC #1470155/5 001

Page 3 of 3

500-243025

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To:	Sam Davies. samantha.davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner - Dianna Tickner@vistracorp com	Address	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No		Quote Reference	
Phone	(217) 753-8911 Fax:	Project Name		Project Manager	
Requested Due Date/TAT	10 day	Project Number	2285	Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VER_000_	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000-[illegible]	Residual Chlorine (Y/N)	Project No./ Lab I.D
1	VER-YSG01																					
2	Field Blank																					
17 3	VER_036_FD	Ww	G	11/28/23	1024		6	3		3						X	X			X		
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						

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
VER-23Q4 Rev 0		11-27-23	917		11/27/23	0917	
		11/27/23	1115		11/29/23	1115	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Dewey

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/29/23

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

COCH1970105515003

Page	1	of	3

500-243025

Section A
Required Client Information

Company	Vistra Corp-Vermilion
Address	10188 E 2150 North Rd
	Danville, IL 61834
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
	Dianna Tickner - Dianna Tickner@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

COLLECTED
500-243025 COC

Requested Analysis Filtered (Y/N)

Preservatives

	ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000-RAD	VER_200-B						Residual Chlorine (Y/N)	Project No./ Lab I.D.
18	1	VER-002	GW	G	11-29-23	1007		6	3		3							X	X			X								
19	2	VER-003R	GW	G	11-29-23	0828		6	3		3							X	X			X								
	3	VER-004																												
	4	VER-005																												
	5	VER-007R																												
20	6	VER-008R	GW	G	11-29-23	0857		6	3		3							X	X			X								
	7	VER-010																												
	8	VER-016!B																												
21	9	VER-016A	GW	G	11-29-23	0950		7	3		4									X	X	X	X							
	10	VER-017																												
	11	VER-020																												
	12	VER-021																												
	13	VER-022																												
	14	VER-034																												
	15	VER-035#S																												
22	16	VER-035&D	GW	G	11-29-23	0807		7	3		4									X	X	X	X							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
VER-23Q4 Rev 0	Scott Woods on behalf of Nate Duda [signature]	11/30/23	0905	[signature]	11/30/23	0905	3.0→2.8	4.4→4.2		
				[signature]	11/30/23	1009	2.8→2.6	3.9→3.7		
							2.6→2.4	1.7→1.6		
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

[signature] 11/30/23 1009

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:	Nate Duda		
SIGNATURE of SAMPLER:	[signature]	DATE Signed (MM/DD/YY)	11-29-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

COC H19 P105515.003

Page 2 of 3

500-243025

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Vistra Corp-Vermilion	Report To	Brian Voelker	Attention	Jason Stuckey
Address	10188 E 2150 North Rd	Copy To	Sam Davies samantha davies@vistracorp com	Company Name	Vistra Corp
	Danville, IL 61834		Dianna Tickner Dianna Tickner@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

Requested Analysis Filtered (Y/N)

Handwritten no.	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	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VER_000_X	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000_RAD	Residual Chlorine (Y/N)	Project No./ Lab I.D.
	1	VER-036																						
	2	VER-037																						
	3	VER-038																						
23	4	VER-040	GW	G	11-29-23	1057		6	3		3							X	X			X		
	5	VER-041																						
	6	VER-042																						
	7	VER-043																						
24	8	VER-070#S	GW	G	11/29/23	1210		6	3		3							X		X		X		
25	9	VER-070&D	GW	G	11/29/23	1307		6	3		3							X		X		X		
	10	VER-071#S																						
26	11	VER-071&D	GW	G	11/29/23	1055		2	1		1							X		X				Revised 12/4/23, Eric Bauer
	12	VER-101&																						
	13	VER-103&																						
	14	VER-ND3																						
27	15	VER-NED1	GW	G	11/29/23	1205		6	3		3							X		X		X		
	16	VER-OED1																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	Scott Woods on behalf of Nate Duda SWWD	11/30/23	0905	[signature]	11/30/23	0905	
VER710 wat dry	[signature]	11/30/23	1009	[signature]	11/30/23	1009	

Collected what we can

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nate Duda

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11/29/23

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

CHAIN-OF-CUSTODY / Analytical Request Document

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

(6CH197010551J 007

Page 3 of 3

500-243025

Section A Required Client Information

Company:	Vistra Corp-Vermilion
Address	10188 E 2150 North Rd
	Danville, IL 61834
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
	Dianna Tickner Dianna Tickner@vistracorp com
Purchase Order No.	
Project Name	
Project Number:	2285

Section C Invoice Information

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location 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	VER_000_A	VER_845_910-911	VER_845_912	VER_NPDES_912	VER_000-B	VER_000-FD	Residual Chlorine (Y/N)	Project No./ Lab I D
1	VER-YSG01																							
2	~~Field Blank~~ VER-EB-1	WT	G	11/29/23	1315		7										X	X	X	X	X	X		
3	VER-002-FD	GW	G	11-29-23	1012		6			3							X	X	X	X	X	X		
4																	X	X			X			
5	VER-0350-FD	GW	G	11-29-23	0812														X	X	X	X		
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								

28 29 30

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
VER-23Q4 Rev 0	Scott Woodson on behalf of Nate Duda Sitelink	11/30/23	0905	R.J. Ellington	11/30/23	0905	
VER-EB-1 circled is for analysis	R.J. Ellington	11/30/23	1009	[illegible]	11/30/23	1009	

VER_845_912, VER-NPDES-912, VER-000-B

SAME AS VER-0350_FD

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER

SIGNATURE of SAMPLER | DATE Signed (MM/DD/YY)

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

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-182129.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-243025-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/11/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: VER-23Q4	Project #: 50022421			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 AJ	904.0/PrecSep_0 AJ	Ra226_228GFPC_P/ AJ	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	903.0/PrecSep_21 AL	904.0/PrecSep_0 AL	Ra226_228GFPC_P/ AL	Total Number of containers	Special Instructions/Note:
Preservation Code:																	
VER-004 (500-243025-4)	11/28/23	13:15 Central		Water			X	X	X	X	X	X				2	
VER-004_MS (500-243025-4MS)	11/28/23	13:15 Central	MS	Water			X	X	X	X	X	X				2	
VER-004_MSD (500-243025-4MSD)	11/28/23	13:15 Central	MSD	Water			X	X	X	X	X	X				2	
VER-010 (500-243025-5)	11/28/23	13:40 Central		Water						X	X	X	X	X	X	2	
VER-017 (500-243025-6)	11/28/23	15:00 Central		Water			X	X	X	X	X	X				2	
VER-020 (500-243025-7)	11/28/23	14:28 Central		Water			X	X	X	X	X	X				2	
VER-021 (500-243025-8)	11/28/23	16:03 Central		Water			X	X	X	X	X	X				2	
VER-022 (500-243025-9)	11/28/23	12:48 Central		Water						X	X	X	X	X	X	2	
VER-022_MS (500-243025-9MS)	11/28/23	12:48 Central	MS	Water						X	X	X	X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Shawn Scott	11/29/23 1330				
2	Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: NOV 30 2023 0915	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-182129.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-243025-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/11/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: VER-23Q4	Project #: 50022421			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 AJ	904.0/PrecSep_0 AJ	Ra226_228GFPC_P/ AJ	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	903.0/PrecSep_21 AL	904.0/PrecSep_0 AL	Ra226_228GFPC_P/ AL	Total Number of containers	Special Instructions/Note:
Preservation Code:																	
VER-022_MSD (500-243025-9MSD)	11/28/23	12:48 Central	MSD	Water						X	X	X	X	X	X	2	
VER-034 (500-243025-10)	11/28/23	15:09 Central		Water			X	X	X	X	X	X				2	
VER-036 (500-243025-11)	11/28/23	15:48 Central		Water			X	X	X	X	X	X				2	
VER-037 (500-243025-12)	11/28/23	08:44 Central		Water			X	X	X	X	X	X				2	
VER-038 (500-243025-13)	11/28/23	12:19 Central		Water			X	X	X	X	X	X				2	
VER-042 (500-243025-14)	11/28/23	10:26 Central		Water			X	X	X	X	X	X				2	
VER-043 (500-243025-15)	11/28/23	11:17 Central		Water			X	X	X	X	X	X				2	
VER-103& (500-243025-16)	11/28/23	09:15 Central		Water			X	X	X	X	X	X				2	
VER-038_FD (500-243025-17)	11/28/23	12:24 Central		Water			X	X	X	X	X	X				2	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Shari Scott	11/29/23 1330		M. Pinette	NOV 30 2023 0915	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-182192.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-243025-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/11/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: VER-23Q4	Project #: 50022421			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
VER-002 (500-243025-18)	11/29/23	10:07 Central		Water			X	X	X	2	
VER-003R (500-243025-19)	11/29/23	08:28 Central		Water			X	X	X	2	
VER-008R (500-243025-20)	11/29/23	08:57 Central		Water			X	X	X	2	
VER-016A (500-243025-21)	11/29/23	09:50 Central		Water			X	X	X	2	
VER-035&D (500-243025-22)	11/29/23	08:07 Central		Water			X	X	X	2	
VER-040 (500-243025-23)	11/29/23	10:57 Central		Water			X	X	X	2	
VER-070#S (500-243025-24)	11/29/23	12:10 Central		Water			X	X	X	2	
VER-070&D (500-243025-25)	11/29/23	13:07 Central		Water			X	X	X	2	
VER-NED1 (500-243025-27)	11/29/23	12:05 Central		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 11/30/23 1600	Company EETA	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: M. Pinetta	Date/Time: DEC 01 2023 0900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-182192.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-243025-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/11/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: VER-23Q4	Project #: 50022421			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
VER-EB-1 (500-243025-28)	11/29/23	13:15 Central		Water			X	X	X	2	
VER-002_FD (500-243025-29)	11/29/23	10:12 Central		Water			X	X	X	2	
VER-035&D_FD (500-243025-30)	11/29/23	08:12 Central		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Barnett	11/30/23 1600	EETA			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				M Pinette	DEC 01 2023 0900	
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

01/09/24

ATTACHMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
VERMILION POWER PLANT, NEW EAST ASH POND (NEAP)
VER-845-912

Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-243025-6
SDG Number: VER_845_912_RAD

Login Number: 243025
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3,3.2,2.5,5.2,3.4,5.7,2.8,4.2,2.6,3.7,2.4,1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Vistra Energy Corp

Job Number: 500-243025-6
SDG Number: VER_845_912_RAD

Login Number: 243025
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 11/29/23 12:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-243025-6
SDG Number: VER_845_912_RAD

Login Number: 243025
List Number: 3
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 11/30/23 02:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-243025-6
SDG Number: VER_845_912_RAD

Login Number: 243025
List Number: 4
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 12/01/23 11:56 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Vistra Energy Corp
Project/Site: VER-23Q4

Job ID: 500-243025-6
SDG: VER_845_912_RAD

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
500-243025-5	VER-010	86.1
500-243025-9	VER-022	95.8
500-243025-9 MS	VER-022_MS	88.6
500-243025-9 MSD	VER-022_MSD	88.8
500-243025-21	VER-016A	90.5
500-243025-22	VER-035&D	98.3
500-243025-24	VER-070#S	99.3
500-243025-25	VER-070&D	100
500-243025-27	VER-NED1	98.3
500-243025-28	VER-EB-1	97.0
500-243025-30	VER-035&D_FD	93.3
500-243025-30 DU	VER-035&D_FD	93.0
LCS 160-639127/2-A	Lab Control Sample	97.5
LCS 160-639335/2-A	Lab Control Sample	103
MB 160-639127/1-A	Method Blank	95.8
MB 160-639335/1-A	Method Blank	103

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
500-243025-5	VER-010	86.1	81.5
500-243025-9	VER-022	95.8	84.1
500-243025-9 MS	VER-022_MS	88.6	88.6
500-243025-9 MSD	VER-022_MSD	88.8	89.3
500-243025-21	VER-016A	90.5	73.6
500-243025-22	VER-035&D	98.3	80.7
500-243025-24	VER-070#S	99.3	82.2
500-243025-25	VER-070&D	100	86.4
500-243025-27	VER-NED1	98.3	86.0
500-243025-28	VER-EB-1	97.0	85.2
500-243025-30	VER-035&D_FD	93.3	83.0
500-243025-30 DU	VER-035&D_FD	93.0	80.0
LCS 160-639128/2-A	Lab Control Sample	97.5	86.4
LCS 160-639336/2-A	Lab Control Sample	103	85.6
MB 160-639128/1-A	Method Blank	95.8	83.0
MB 160-639336/1-A	Method Blank	103	81.9

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

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
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
16A	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	10	90	CI around median	0.001	0.00500
16A	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	10	0	CI around geomean	0.00114	0.001
16A	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	10	0	CI around mean	0.245	0.0820
16A	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.001	0.001
16A	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	10	0	CI around mean	0.688	0.430
16A	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0005	0.001
16A	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	10	0	CI around mean	125	20.4
16A	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.005	0.00400
16A	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.001	0.0900
16A	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	10	10	CI around mean	0.647	0.430
16A	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0005	0.001
16A	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	10	0	CB around linear reg	0.0277	0.0300
16A	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0002	0.0002
16A	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.005	0.00400
16A	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	15	0	CI around mean	7.2/7.5	6.3/7.8
16A	BCU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	9	0	CI around mean	0.38	7.00
16A	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.0025	0.001
16A	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	15	5	CI around mean	13.3	338
16A	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	10	100	All ND - Last	0.002	0.002
16A	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	15	0	CI around mean	645	1,080
35D	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	11	73	CI around median	0.001	0.00500
35D	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	11	9	CI around mean	0.00178	0.001
35D	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around median	0.0261	0.0820
35D	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.001
35D	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	1.59	0.430
35D	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.001
35D	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	288	20.4

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
35D	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	11	73	CI around median	0.0015	0.00400
35D	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	11	36	CI around median	0.001	0.0900
35D	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	11	9	CI around mean	0.635	0.430
35D	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	11	46	CI around geomean	0.00063	0.001
35D	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.11	0.0300
35D	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0002	0.0002
35D	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	11	18	CB around linear reg	-0.00102	0.00400
35D	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	15	0	CI around median	7.2/7.7	6.3/7.8
35D	BCU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	10	0	CI around mean	0.303	7.00
35D	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0025	0.001
35D	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	16	0	CI around mean	1,080	338
35D	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.002	0.002
35D	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	16	0	CI around mean	2,660	1,080
70S	UU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.003	0.00500
70S	UU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.001
70S	UU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.0165	0.0820
70S	UU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.001
70S	UU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.359	0.430
70S	UU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.001
70S	UU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	13.6	20.4
70S	UU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.005	0.00400
70S	UU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.001	0.0900
70S	UU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	11	9	CB around T-S line	0.145	0.430
70S	UU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.001
70S	UU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.0116	0.0300
70S	UU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0002	0.0002
70S	UU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	11	18	CI around median	0.005	0.00400

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
NEW EAST ASH POND
OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
70S	UU	E003	pH (field)	SU	04/01/21 - 11/29/23	11	0	CI around mean	6.9/7.0	6.3/7.8
70S	UU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	10	0	CI around geomean	0.084	7.00
70S	UU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0025	0.001
70S	UU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	607	338
70S	UU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.002	0.002
70S	UU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	1,240	1,080
70D	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	11	82	CI around median	0.001	0.00500
70D	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	11	54	CI around median	0.001	0.001
70D	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.438	0.0820
70D	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	11	73	CI around median	0.001	0.001
70D	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	1.12	0.430
70D	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0005	0.001
70D	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	508	20.4
70D	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	11	27	CI around geomean	0.00316	0.00400
70D	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	11	9	CB around linear reg	-0.0449	0.0900
70D	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	11	9	CB around linear reg	0.213	0.430
70D	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	11	18	CI around geomean	0.00131	0.001
70D	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	0.0737	0.0300
70D	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.0002	0.0002
70D	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	11	27	CB around linear reg	-0.0237	0.00400
70D	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	11	0	CI around mean	6.8/7.2	6.3/7.8
70D	BCU	E003	Radium 226 + Radium 228, total	pCi/L	04/01/21 - 11/29/23	10	0	CI around mean	0.87	7.00
70D	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	11	82	CI around median	0.001	0.001
70D	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	11	0	CI around mean	47.4	338
70D	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	11	100	All ND - Last	0.002	0.002
70D	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	11	0	CB around linear reg	1,100	1,080
71D	BCU	E003	Antimony, total	mg/L	04/01/21 - 11/29/23	6	67	CI around median (Last Sample, n<7)	0.003	0.00500

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
VERMILION POWER PLANT
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OAKWOOD, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
71D	BCU	E003	Arsenic, total	mg/L	04/01/21 - 11/29/23	6	50	CI around mean	-0.0044	0.001
71D	BCU	E003	Barium, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.143	0.0820
71D	BCU	E003	Beryllium, total	mg/L	04/01/21 - 11/29/23	6	83	CI around median (Last Sample, n<7)	0.001	0.001
71D	BCU	E003	Boron, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.672	0.430
71D	BCU	E003	Cadmium, total	mg/L	04/01/21 - 11/29/23	6	100	All ND - Last	0.0005	0.001
71D	BCU	E003	Chloride, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	230	20.4
71D	BCU	E003	Chromium, total	mg/L	04/01/21 - 11/29/23	6	33	CI around geomean	0.000986	0.00400
71D	BCU	E003	Cobalt, total	mg/L	04/01/21 - 11/29/23	6	33	CI around geomean	0.000467	0.0900
71D	BCU	E003	Fluoride, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.423	0.430
71D	BCU	E003	Lead, total	mg/L	04/01/21 - 11/29/23	6	17	CI around mean	-0.0133	0.001
71D	BCU	E003	Lithium, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	0.0295	0.0300
71D	BCU	E003	Mercury, total	mg/L	04/01/21 - 11/29/23	6	100	All ND - Last	0.0002	0.0002
71D	BCU	E003	Molybdenum, total	mg/L	04/01/21 - 11/29/23	6	33	CI around mean	0.00298	0.00400
71D	BCU	E003	pH (field)	SU	04/01/21 - 11/29/23	6	0	CI around mean	6.8/7.5	6.3/7.8
71D	BCU	E003	Selenium, total	mg/L	04/01/21 - 11/29/23	6	83	CI around median (Last Sample, n<7)	0.0025	0.001
71D	BCU	E003	Sulfate, total	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	39.8	338
71D	BCU	E003	Thallium, total	mg/L	04/01/21 - 11/29/23	6	100	All ND - Last	0.002	0.002
71D	BCU	E003	Total Dissolved Solids	mg/L	04/01/21 - 11/29/23	6	0	CI around mean	834	1,080

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
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OAKWOOD, IL

Notes:
Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value
HSU = hydrostratigraphic unit:

BCU = Bedrock Confining Unit

UU = Upper Unit

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

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