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2020 NOS Landfill Annual Groundwater Report

North Omaha Station NOS
Ash Landfill

*Omaha, Nebraska
January 29, 2021*



Professional Engineer Certification

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am duly licensed Professional Engineer under the laws of the State of Nebraska.

Print Name: Megan B. Seymour

Signature: *Megan B. Seymour*

Date: 01-29-2021

License #: E-15931



My license renewal date is December 31, 2022.



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Executive Summary

Omaha Public Power District (OPPD) owns and operates a five-unit fuel-fired generating plant at the North Omaha Station (NOS) in Omaha, Nebraska. Units 1, 2, and 3 were retired from operation (converted to natural gas), while Units 4 and 5 are still operating as coal-burning units through the year 2023. NOS is located east of Pershing Drive and Craig Street, approximately 3.5 miles northwest of Eppley Airfield, along the west bank of the Missouri River at river mile 625.2. On April 17, 2015, the United States Environmental Protection Agency published the final rule for the regulation and management of coal combustion residuals (CCR) under Subtitle D of the Resource Conservation and Recovery Act. The rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257. The purpose of this report is to provide a summary of CCR groundwater monitoring system activities for calendar year 2020 for the assessment monitoring program under 40 CFR §257.95.

The NOS Ash Landfill transitioned from detection monitoring to assessment monitoring following the November 2017 sampling event due to statistically significant increases (SSIs) above the background threshold values in downgradient monitoring wells. OPPD evaluated an alternate source demonstration (ASD) for the SSIs, but the ASD was unsuccessful and OPPD initiated assessment monitoring in June 2018 and a subsequent event in October 2018. Results indicated multiple Appendix IV constituents at statistically significant levels (SSLs) above the groundwater protection standards (GWPS). OPPD published a notification of the exceedances on February 14, 2019, and a notification of initiation of assessment of corrective measures (ACM) on May 30, 2019. An initial ACM report was completed on July 5, 2019.

OPPD has continued to comply with CCR regulations and has made progress towards selecting a remedy by obtaining additional site information necessary to understand the hydrogeologic system at the NOS Ash Landfill. A Conceptual Site Model (CSM) was prepared to describe the site-specific geologic and hydrogeologic regimes. OPPD also submitted the NDEE Title 132 Nature & Extent Report (HDR, 2019a). Using the CSM, a 3-dimensional computer-based groundwater flow model was prepared to create a digital representation of the groundwater flow system. Semi-annual updates describing the progress in selecting a corrective action at the NOS Ash Landfill were completed on January 6, 2020 and July 6, 2020.

Two semi-annual sampling events were conducted in 2020; one sampling event in April 2020 and one sampling event in October 2020. Results of the April 2020 analysis indicated 26 SSIs for Appendix III constituents and 16 additional SSIs for Appendix IV constituents.

The identified SSIs following the April 2020 sampling event are:

- Arsenic in MW-2, MW-5, MW-6, MW-8, and MW-13
- Boron in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Calcium in MW-2, MW-5, MW-6, MW-13, MW-15, and MW-17
- Chloride in MW-6
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, MW-15, and MW-17

- Selenium in MW-13 and MW-15
- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- TDS in MW-2, MW-5, MW-6, MW-13, and MW-17

Analysis of the Appendix IV constituents indicated 12 SSLs detected above the GWPS during the April 2020 sampling event:

- Arsenic in MW-2, MW-5, MW-6, MW-8, MW-13, and MW-17
- Cobalt in MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

No new SSLs were identified during the April 2020 sampling event.

Results of the October 2020 analysis indicated 24 SSIs for Appendix III constituents and 16 additional SSIs for Appendix IV constituents. The identified SSIs following the October 2020 sampling event are as follows:

- Antimony in MW-15
- Arsenic in MW-2, MW-5, MW-6, MW-13, and MW-17
- Boron in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Calcium in MW-2, MW-5, MW-6, MW-15, and MW-17
- Chloride in MW-6
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, and MW-15
- Selenium in MW-13 and MW-15
- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- TDS in MW-2, MW-5, MW-13, and MW-17

Analysis of the Appendix IV constituents indicated 13 SSLs detected above the GWPS during the October 2020 sampling event:

- Arsenic in MW-2, MW-5, MW-6, MW-8, MW-13, and MW-17
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

One new SSL, cobalt at MW-6, was identified during the October 2020 sampling event.

Currently, OPPD is developing a transient flow model and groundwater fate & transport model to support remedy selection. The Site will continue to be monitored in accordance with the assessment monitoring program as specified in 40 CFR §257.96(b), and the next semi-annual sampling event is anticipated to occur in April 2021.

1 Introduction

On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residuals (CCR) under Subtitle D of the Resource Conservation and Recovery Act. Disposal of CCR from Electric Utilities final rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257 (EPA, 2015). The rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Classification System code 221112, and facilities that produce or store CCR materials in surface impoundments or landfills. The CCR rule defines a set of requirements for the disposal and handling of CCR within units (defined as either landfills or surface impoundments). This regulation applies to the Omaha Public Power District (OPPD) North Omaha Station (NOS).

1.1 Purpose

Specified in 40 CFR §257.90(e), an owner or operator of an existing CCR landfill must prepare an annual groundwater monitoring and corrective action report to summarize any key actions completed, problems encountered, and upcoming activities related to the groundwater monitoring system. The information included in this report complies with the requirements established in 40 CFR §257.90(e) and provides a summary of CCR groundwater monitoring system activities for calendar year 2020.

1.2 Facility Information

OPPD owns and operates a five-unit fuel-fired generating plant at NOS, herein referenced as “Station” or “Site”, in Omaha, Nebraska. Units 1, 2, and 3 were retired from operation (converted to natural gas), while units 4 and 5 were retrofitted with air pollution control equipment and are in operation as coal-burning units through the year 2023. The Station is located east of Pershing Drive and Craig Street, approximately 3.5 miles northwest of Eppley Airfield, along the west bank of the Missouri River at river mile 625.2. The first generating unit was placed in service in July 1954, and the fifth unit was placed in operation in 1968. Beneficial use and disposal of the fossil fuel combustion ash has occurred on the Site since the 1950s.

This Station has one closed landfill and one existing active CCR landfill, known as the NOS Ash Landfill, as shown in **Figure 1** (attached). The NOS Ash Landfill is permitted under the current Nebraska Department of Environment and Energy (NDEE) Title 132 regulations for fossil fuel combustion ash landfills (NDEE Permit No. NE0054739, Facility ID 59763). The NOS Ash Landfill consists of an unlined active CCR landfill of approximately 18 acres and a 1.4-acre undeveloped portion. **Figure 1** identifies the relevant CCR unit for this report and the supporting monitoring well network.

2 Monitoring Program Summary

The groundwater monitoring system currently includes ten monitoring wells consisting of three upgradient/background monitoring wells (MW-9, MW-18, MW-19) and seven downgradient/compliance monitoring wells (MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17). Monitoring well details for the monitoring network, including the date of installation, is provided

in **Table 1** (attached). The location of the monitoring wells in the groundwater monitoring program with respect to the NOS Ash Landfill are shown in the attached **Figure 1**.

2.1 Transition of Monitoring Programs

On January 31, 2018, OPPD published statistically significant increases (SSIs) detected in November 2017 in downgradient monitoring wells at the NOS Ash Landfill for 17 monitoring well/constituent pairs. These SSIs were noted in multiple wells and included boron, calcium, chloride, sulfate, and total dissolved solids (TDS). OPPD conducted an alternate source demonstration (ASD) for the SSIs to evaluate potential error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The ASD was unsuccessful and OPPD published a notification (dated May 29, 2018) stating the facility had initiated an assessment monitoring program in accordance with 40 CFR §257.95.

Assessment monitoring was initiated in June 2018 and a subsequent event was conducted in October 2019. During each event background and compliance monitoring wells were sampled and sample analyzed for both 40 CFR §257 Appendix III and 40 CFR §257 Appendix IV. Results of the statistical analysis of the data indicated multiple Appendix IV constituents were detected at statistically significant levels (SSLs) above the groundwater protection standards (GWPS). OPPD published a notification of the SSLs on February 14, 2019, and a notification of initiation of assessment of corrective measures (ACM) (HDR, 2019c). An initial ACM report was completed on July 5, 2019. During the completion of the report, data gaps were identified. Additional site information was obtained and submitted in the NDEE Title 132 Nature & Extent Report (HDR, 2019a).

2.2 Groundwater Monitoring Network Condition Assessment

OPPD personnel evaluated the condition of each monitoring well in the groundwater monitoring network during the semi-annual sampling events in April 2020 and October 2020. During this time period, no repairs were required. The wells were noted in good working condition, concrete pads were intact, and no damage was observed to the protective well casings. No monitoring wells were added to or abandoned from the certified groundwater monitoring system in 2020.

3 Data Evaluation and Summary

3.1 Summary of Sampling Activities

Groundwater sampling events were conducted by OPPD personnel in April 2020 and October 2020 as continuation of the assessment monitoring program in accordance with 40 CFR §257.96(b). Samples were collected in general compliance with 40 CFR §257.90(c), which requires groundwater monitoring be conducted throughout the active life and post-closure care period of the CCR unit for each current background and downgradient well in the monitoring network. The number of samples collected for each background and downgradient well during each groundwater sample event, whether the sample was collected during detection or assessment monitoring programs, and the date of each event is summarized in **Table 2**.

Groundwater sampling was conducted by OPPD personnel in general accordance with the facility's NDEE Title 132 Groundwater Sampling and Analysis Plan (HDR, 2019b) and the

Groundwater Monitoring System Certification (HDR, 2020a). Samples were analyzed for Appendix III and Appendix IV constituents during both the April 2020 and October 2020 sampling events. Field sampling forms from the 2020 semi-annual sampling events are provided in **Appendix A**. The collected groundwater samples were analyzed by Eurofins TestAmerica. The laboratory analytical reports are provided in **Appendix B**.

3.2 Groundwater Elevations & Flow Direction

Static groundwater level measurements were recorded at the monitoring wells specified in **Table 1** prior to purging and sampling activities conducted during the groundwater sampling events. Groundwater measurements of both monitoring network wells and water level only wells, specified in **Table 1**, were obtained on October 1, 2020 and were used to develop groundwater contours. Monitoring well static groundwater elevations from the October 1, 2020 Site groundwater elevation measurement event are provided in **Table 3**. Groundwater measurements collected during the April 2020 sampling event indicated a flow direction to the east/northeast, with an average flow velocity of 0.00432 ft/day to 0.299 ft/day. Groundwater measurements collected during the October 2020 sampling event indicated a flow direction to the east/northeast with an average flow velocity of 0.00423 ft/day to 0.293 ft/day. The April 2020 and October 2020 flow velocities are based on a range of hydraulic conductivity at the Site of 0.054 ft/day to 3.77 ft/day (HDR, 2020a).

3.3 Assessment Monitoring Groundwater Sampling

The NOS Ash Landfill was monitored semi-annually in 2020 as continuation of the assessment monitoring program in accordance with 40 CFR §257.96(b). Appendix III and Appendix IV constituents were analyzed for both the April 2020 and October 2020 sampling events, meeting the requirements of 40 CFR §257.95. The results of the assessment monitoring events in April 2020 and October 2020 are presented in **Table 4** (Appendix III constituents) and **Table 5** (Appendix IV constituents).

3.4 Statistical Analysis Results

In the assessment monitoring program, Appendix III and IV constituents are statistically analyzed to evaluate for SSIs above the calculated background threshold values (BTVs), and Appendix IV constituents are statistically analyzed to evaluate for statistically significant levels (SSLs) above the GWPS. Statistical analyses were performed using Sanitas™ statistical analysis software in accordance with the methods described in the Groundwater Monitoring Statistical Methods Certification (HDR, 2020b). Statistically derived BTVs for Appendix III and IV constituents are provided in **Table 6**. BTVs are updated every two years or during a monitoring program transition, in accordance with Chapter 21 of the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (EPA, 2009). The established GWPS all Appendix IV constituents are provided in **Table 7**. Results of the statistical analysis of designated in-network downgradient monitoring wells from the April 2020 and October 2020 sampling events are provided in **Appendix C**.

Results of the April 2020 analysis indicated 26 SSIs for Appendix III constituents and 16 additional SSIs for Appendix IV constituents. The identified SSIs following the April 2020 sampling event are as follows:

- Arsenic in MW-2, MW-5, MW-6, MW-8, and MW-13
- Boron in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Calcium in MW-2, MW-5, MW-6, MW-13, MW-15, and MW-17
- Chloride in MW-6
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, MW-15, and MW-17
- Selenium in MW-13 and MW-15
- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- TDS in MW-2, MW-5, MW-6, MW-13, and MW-17

Analysis of the Appendix IV constituents indicated 12 SSLs detected above the GWPS during the April 2020 sampling event:

- Arsenic in MW-2, MW-5, MW-6, MW-8, MW-13, and MW-17
- Cobalt in MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

No new SSLs were identified during the April 2020 sampling event.

Results of the October 2020 analysis indicated 24 SSIs for Appendix III constituents and 16 additional SSIs for Appendix IV constituents. The identified SSIs following the October 2020 sampling event are as follows:

- Antimony in MW-15
- Arsenic in MW-2, MW-5, MW-6, MW-13, and MW-17
- Boron in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- Calcium in MW-2, MW-5, MW-6, MW-15, and MW-17
- Chloride in MW-6
- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-6, MW-8, MW-13, and MW-15
- Selenium in MW-13 and MW-15
- Sulfate in MW-2, MW-5, MW-6, MW-8, MW-13, MW-15, and MW-17
- TDS in MW-2, MW-5, MW-13, and MW-17

Analysis of the Appendix IV constituents indicated 13 SSLs detected above the GWPS during the October 2020 sampling event:

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- Cobalt in MW-6 and MW-17
- Lithium in MW-5 and MW-17
- Molybdenum in MW-13 and MW-15
- Selenium in MW-15

One new SSL, cobalt at MW-6, was identified during the October 2020 sampling event.

3.5 Other Information Required under 40 CFR §257.90-98

OPPD has continued to comply with CCR regulations and has made progress towards selecting a remedy by obtaining additional site information necessary to understand the hydrogeologic system at the NOS Ash Landfill. A CSM was prepared in 2020 to describe the site-specific geologic and hydrogeologic regimes that influence the extent and potential migration pathways of CCR and Title 132 constituents. Following the CSM, a 3-dimensional computer-based groundwater flow model was prepared to create a digital representation of the groundwater flow system to predict groundwater movement as well as further evaluate the feasibility of potential remedial measures. Currently, OPPD is developing a transient flow model and fate & transport model to support remedy selection.

In accordance with 40 CFR §257.97(a), a semi-annual update describing the progress in selecting and designing a remedy for corrective action at the NOS Ash Landfill was placed in the operating record on January 6, 2020 and July 6, 2020. No other information is required under 40 CFR §257.90-98 at this time.

4 Key Activities for Upcoming Year

OPPD will continue to make progress towards selection and design of remedy for corrective action at the NOS Ash Landfill. In accordance with 40 CFR §257.97(a), a semi-annual update describing the progress in selecting and designing a remedy was placed in the operating record in January 2021. The Site will continue to be monitored in accordance with the assessment monitoring program as specified in 40 CFR §257.96(b), and the next semi-annual sampling event is anticipated to occur in April 2021.

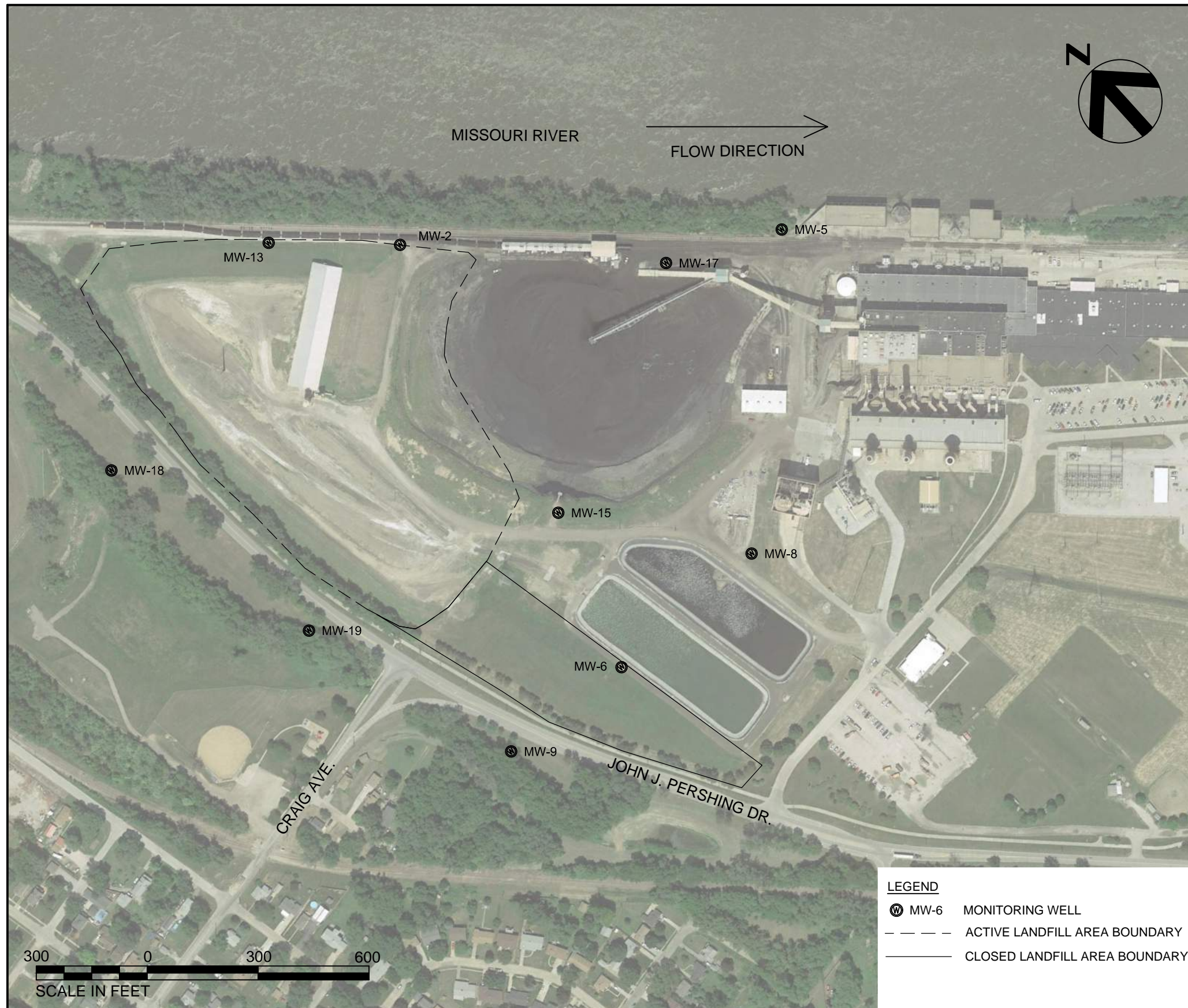
5 References

- EPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities: Unified Guidance*. Environmental Protection Agency Office of Resource Conservation and Recovery. EPA 530/R-09-007. March 2009.
- EPA, 2015. 40 CFR Part 257; *Disposal of Coal Combustion Residuals from Electric Utilities*; Final Rule, Federal Register vol. 80, no. 74. Environmental Protection Agency. April 17, 2015.
- HDR, 2019a. *Title 132 Nature & Extent Report*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. December 18, 2019.
- HDR, 2019b. *Groundwater Sampling and Analysis Plan*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. September 2019.
- HDR, 2019c. *Assessment of Corrective Measures*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. July 5, 2019.
- HDR, 2020a. *CCR Groundwater Monitoring System*. North Omaha Station Ash Disposal Area. Omaha, Nebraska. Amended January 2020.

A decorative graphic consisting of several overlapping colored rectangles. On the left, there is a vertical stack of three rectangles: a large orange one on top, a medium grey one in the middle, and a smaller black one at the bottom. To the right of the orange rectangle is a large dark grey rectangle. Below the dark grey rectangle is a black rectangle. The word "Figures" is written in black text on the white background to the right of the orange rectangle.

Figures

C:\pwworking\central01\1756733\Figure 1 - Title 132 and CCR - FALL.dwg, Layout1, 11/3/2020 7:12:30 AM, WNICHOLOSON



COMPLIANCE AND BACKGROUND MONITORING WELLS						
WELL ID	NORTHING	EASTING	SURFACE EL	TOP OF CASING (TOC) EL	INSTALL DATE	COMMENTS
MW-2	572580	2753258	998.30	1001.41	3/6/1995	DOWNGRADIENT
MW-5	571959.9	2754084	998.10	1000.96	3/2/1995	DOWNGRADIENT
MW-6	571316.1	2753000	999.60	1002.65	3/8/1995	DOWNGRADIENT
MW-8	571331.8	2753467	1000.30	1003.59	3/7/1995	DOWNGRADIENT
MW-9	571328	2752624	1027.10	1026.47	5/4/1996	BACKGROUND
MW-13	572808.9	2752986	999.02	1001.91	4/12/2001	DOWNGRADIENT
MW-15	571747.9	2753132	1002.80	1005.39	4/12/2001	DOWNGRADIENT
MW-17	572087.4	2753785	999.60	1002.54	5/10/2007	DOWNGRADIENT
MW-18	572600.9	2752267	1037.10	1037.00	12/1/2015	BACKGROUND
MW-19*	571927.2	2752407	1037.30	1037.10	1/20/2016	BACKGROUND

* FLUSH MOUNT WELL

LEGEND

- Ⓜ MW-6 MONITORING WELL
- - - - - ACTIVE LANDFILL AREA BOUNDARY
- CLOSED LANDFILL AREA BOUNDARY



**OMAHA PUBLIC POWER DISTRICT
NORTH OMAHA STATION - ASH LANDFILL
MONITORING WELL LOCATION MAP**

2020 GROUNDWATER MONITORING

DATE
DECEMBER 2020

FIGURE

1



Tables

Table 1 - Groundwater Monitoring System
 Omaha Public Power District - NOS Ash Landfill

Monitoring Well ID	Date Installed	Well Depth ^[1] (feet bgs)	Location w/ respect to NOS Ash Landfill	Ground Surface Elevation (feet AMSL)	Top of Well Casing Elevation ^[2] (feet AMSL)
CCR Monitoring Network Wells					
MW-2	3/6/1995	30	Downgradient	998.30	1001.41
MW-5	3/2/1995	30	Downgradient	998.10	1000.96
MW-6	3/8/1995	31	Downgradient	999.60	1002.65
MW-8	3/7/1995	30	Downgradient	1000.30	1003.59
MW-9	5/4/1996	63	Background/Upgradient	1027.10	1026.47
MW-13	4/12/2001	30	Downgradient	999.02	1001.91
MW-15	4/12/2001	15	Downgradient	1002.80	1005.39
MW-17	5/10/2007	30	Downgradient	999.60	1002.54
MW-18	12/1/2015	71	Background/Upgradient	1037.10	1037.00
MW-19	1/20/2016	76	Background/Upgradient	1037.30	1037.10
Water Level Only Wells					
MW-4	3/6/1995	33	Water Level Only Well	1001.30	1004.59
MW-7	3/8/1995	30	Water Level Only Well	999.10	1001.85
MW-10	4/11/2001	15	Water Level Only Well	1000.13	1002.48
MW-11	4/11/2001	15	Water Level Only Well	1000.49	1002.99
MW-12	4/11/2001	15	Water Level Only Well	1001.35	1003.78
MW-19S	10/21/2019	46	Water Level Only Well	1036.71	1036.21
MW-20	11/9/2015	35	Water Level Only Well	991.20	993.47
MW-22	2/25/2019	22	Water Level Only Well	1005.80	1009.31
MW-23	2/26/2019	24	Water Level Only Well	997.70	1000.81
MW-25S	10/18/2019	28	Water Level Only Well	999.24	1002.51
MW-26S	10/18/2020	28	Water Level Only Well	1008.24	1011.54
MW-27	2/6/2020	32	Water Level Only Well	1017.69	1021.09
MW-28	2/6/2020	50	Water Level Only Well	1040.42	1043.74
MW-29	2/4/2020	42	Water Level Only Well	1028.41	1031.59
MW-30	2/5/2020	40	Water Level Only Well	1026.12	1029.75

Notes:

^[1] bgs- below ground surface.

^[2] AMSL - above mean sea level

Table 2 - Groundwater Sampling Event Summary
Omaha Public Power District - NOS Ash Landfill

Monitoring Well ID	# of Initial Background Samples	Initial Background Sample Dates	# of Detection Monitoring Samples	Detection Monitoring Sample Dates ^[1]	# of Assessment Monitoring Samples	Assessment Monitoring Sample Dates ^{[2] [3]}
Current Background Monitoring Wells						
MW-9	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/20/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020
MW-18	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020
MW-19	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/13/2020, 10/7/2020
Downgradient Monitoring Wells						
MW-2	8	3/22/2016, 6/14/2016, 11/29/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017, 11/7/2017	1	3/9/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020
MW-5	8	3/23/2016, 6/14/2016, 11/29/2016, 5/2/2017, 6/5/2018, 10/10/2018, 4/16/2019, 10/1/2019	0	N/A ^[4]	3	10/1/2019, 4/14/2020, 10/8/2020
MW-6	8	3/22/2016, 6/14/2016, 11/28/2016, 5/2/2017, 3/9/2018, 6/5/2018, 10/9/2018, 4/15/2019	0	N/A ^[4]	3	10/1/2019, 4/14/2020, 10/7/2020
MW-8	8	3/23/2016, 6/14/2016, 11/29/2016, 5/2/2017, 6/5/2018, 10/10/2018, 4/15/2019, 10/1/2019	0	N/A ^[4]	3	10/1/2019, 4/14/2020, 10/8/2020
MW-13	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020
MW-15	8	3/22/2016, 6/14/2016, 9/2/2016, 11/28/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/7/2020
MW-17	8	3/22/2016, 6/14/2016, 9/2/2016, 11/29/2016, 2/17/2017, 5/2/2017, 6/19/2017, 7/31/2017	2	11/7/2017, 3/9/2018	6	6/5/2018, 10/9/2018, 4/15/2019, 10/1/2019, 4/14/2020, 10/8/2020

Notes:

[1] The March 2018 Detection Monitoring event was completed as an Alternate Source Evaluation (ASD) due to detected SSIs in November 2017.

[2] The June 2018 sampling event was completed for initiation of the Assessment Monitoring Program.

[3] The April 2019 sampling event was completed as part of the initiation of Assessment of Corrective Measures in accordance with 40 CFR 257.96(b).

[4] Monitoring wells MW-5, MW-6, and MW-8 were added to the network after the April 2019 sampling event.

Table 3 - Groundwater Elevations

Omaha Public Power District - NOS Ash Landfill

CCR Monitoring Network Wells																				
MW-2		MW-5		MW-6		MW-8		MW-9		MW-13		MW-15		MW-17		MW-18		MW-19		
TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation ^[1]		TOC Elevation ^[2]		
1001.41		1000.96		1002.65		1003.59		1026.47		1001.91		1005.39		1002.54		1037.00		1037.10		
Date	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation	Measured Depth to Water (ft)	GW Elevation	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)
3/22/2016	21.20	980.21	20.30	980.66	12.75	989.90	17.55	986.04	22.41	1004.06	17.41	984.50	10.90	994.49	17.18	985.36	34.75	1002.25	33.85	1003.25
6/14/2016	21.65	979.76	19.15	981.81	12.05	990.60	16.00	987.59	22.10	1004.37	17.40	984.51	10.40	994.99	16.10	986.44	33.92	1003.08	33.40	1003.70
9/2/2016	22.90	978.51	20.50	980.46	13.30	989.35	17.48	986.11	24.70	1001.77	22.50	979.41	10.90	994.49	17.50	985.04	35.50	1001.50	34.95	1002.15
11/28/2016	22.06	979.35	20.55	980.41	13.48	989.17	18.18	985.41	24.65	1001.82	18.20	983.71	11.30	994.09	17.51	985.03	35.35	1001.65	34.91	1002.19
2/17/2017	22.45	978.96	20.73	980.23	13.89	988.76	18.67	984.92	24.70	1001.77	18.80	983.11	11.65	993.74	18.25	984.29	35.95	1001.05	35.30	1001.80
5/2/2017	22.00	979.41	20.25	980.71	13.40	989.25	11.32	992.27	23.71	1002.76	18.41	983.50	10.45	994.94	17.12	985.42	34.80	1002.20	34.22	1002.88
6/19/2017	22.00	979.41	19.60	981.36	12.50	990.15	16.45	987.14	23.90	1002.57	18.30	983.61	10.60	994.79	16.55	985.99	34.70	1002.30	34.20	1002.90
7/31/2017	23.10	978.31	20.21	980.75	13.37	989.28	11.38	992.21	26.65	999.82	19.25	982.66	12.15	993.24	17.10	985.44	36.40	1000.60	35.85	1001.25
11/7/2017	22.95	978.46	23.45	977.51	12.20	990.45	15.80	987.79	21.30	1005.17	19.40	982.51	12.75	992.64	17.50	985.04	36.39	1000.61	35.86	1001.24
3/9/2018	23.33	978.08	21.25	979.71	13.10	989.55	17.17	986.42	26.35	1000.12	20.21	981.70	13.75	991.64	19.21	983.33	36.31	1000.69	37.06	1000.04
4/23/2018	23.50	977.91	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	29.27	997.20	20.35	981.56	12.70	992.69	19.00	983.54	35.63	1001.37	35.15	1001.95
6/5/2018	22.43	978.98	19.47	981.49	14.17	988.48	18.27	985.32	26.52	999.95	18.90	983.01	12.12	993.27	17.10	985.44	35.52	1001.48	35.81	1001.29
10/9/2018	19.49	981.92	17.08	983.88	13.49	989.16	17.05	986.54	25.47	1001.00	15.93	985.98	10.71	994.68	14.71	987.83	33.94	1003.06	33.78	1003.32
4/15/2019	17.74	983.67	16.51	984.45	12.78	989.87	17.17	986.42	23.36	1003.11	14.16	987.75	10.67	994.72	14.73	987.81	32.68	1004.32	32.70	1004.40
10/1/2019	16.02	985.39	14.76	986.20	13.17	989.48	16.96	986.63	26.01	1000.46	12.94	988.97	10.76	994.63	13.74	988.80	33.52	1003.48	33.53	1003.57
4/14/2020	21.32	980.09	19.01	981.95	13.15	989.50	17.51	986.08	23.89	1002.58	17.38	984.53	11.29	994.10	16.50	986.04	33.74	1003.26	33.47	1003.63
10/1/2020 ^[3]	23.82	977.59	21.05	979.91	14.98	987.67	19.13	984.46	30.10	996.37	20.39	981.52	14.22	991.17	18.51	984.03	38.03	998.97	37.86	999.24

Notes:

TOC: Top of PVC well casing

N.M. = not measured

AMSL = above mean sea level

^[1] The casing of MW-18 was cut on November 28, 2016. Prior to this date, the top of casing was 1037.00.

^[2] The casing of MW-19 was cut on November 28, 2016. Prior to this date, the top of casing was 1037.10.

^[3] Sampling was completed on 10/7/ 2020 and 10/8/2020 along with obtainment of water levels prior to purging and sampling. The 10/1/2020 water levels represent a site wide pheretic water level measurement event.

Table 3 - Groundwater Elevations

Omaha Public Power District - NOS Ash Disposal Area

Water Level Only Wells																				
MW-4		MW-7		MW-10		MW-11		MW-12		MW-19S		MW-20		MW-22		MW-23		MW-25S		
TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		
1004.59		1001.85		1002.48		1002.99		1002.99		1036.21		993.47		1009.31		1000.81		1002.51		
Date	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)
3/22/2016	11.84	992.75	16.57	985.28	15.50	986.98	10.83	992.16	16.34	986.65	Installed 10/21/2019	8.17	985.30	N.M.	N.M.	N.M.	N.M.	Installed 10/18/2019		
6/14/2016	11.19	993.40	15.70	986.15	14.50	987.98	10.05	992.94	14.55	988.44		7.60	985.87	N.M.	N.M.	N.M.	N.M.			
9/2/2016	12.20	992.39	17.21	984.64	16.04	986.44	11.30	991.69	15.60	987.39		8.35	985.12	N.M.	N.M.	N.M.	N.M.			
11/28/2016	12.30	992.29	17.80	984.05	16.80	985.68	12.20	990.79	17.25	985.74		9.00	984.47	N.M.	N.M.	N.M.	N.M.			
2/17/2017	12.90	991.69	18.30	983.55	16.99	985.49	12.54	990.45	17.71	985.28		9.41	984.06	N.M.	N.M.	N.M.	N.M.			
5/2/2017	12.35	992.24	16.69	985.16	15.55	986.93	12.45	990.54	9.39	993.60		8.20	985.27	N.M.	N.M.	N.M.	N.M.			
6/19/2017	11.85	992.74	16.15	985.70	14.95	987.53	10.50	992.49	15.00	987.99		8.05	985.42	N.M.	N.M.	N.M.	N.M.			
7/31/2017	12.45	992.14	16.72	985.13	16.00	986.48	13.02	989.97	10.20	992.79		8.70	984.77	N.M.	N.M.	N.M.	N.M.			
11/7/2017	12.80	991.79	15.65	986.20	14.25	988.23	12.00	990.99	14.42	988.57		9.03	984.44	N.M.	N.M.	N.M.	N.M.			
3/9/2018	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	12.81	990.18	N.M.	N.M.			N.M.	N.M.	N.M.	N.M.	N.M.			
4/23/2018	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.			N.M.	N.M.	N.M.	N.M.	N.M.			
6/5/2018	13.66	990.93	17.51	984.34	16.27	986.21	12.98	990.01	16.11	986.88		6.08	987.39	N.M.	N.M.	N.M.	N.M.			
10/9/2018	11.94	992.65	16.71	985.14	15.51	986.97	12.81	990.18	13.05	989.94		7.00	986.47	N.M.	N.M.	N.M.	N.M.			
4/15/2019	11.44	993.15	16.21	985.64	15.03	987.45	11.64	991.35	16.23	986.76		7.49	985.98	12.16	997.15	10.77	990.04			
10/1/2019	11.79	992.80	16.90	984.95	15.75	986.73	11.94	991.05	15.73	987.26	N.M.	N.M.	N.M.	N.M.	9.37	991.44				
4/14/2020	12.40	992.19	16.72	985.13	15.74	986.74	12.04	990.95	16.40	986.59	25.39	1010.82	8.20	985.27	12.92	996.39	11.87	988.94	24.29	978.22
10/1/2020	14.41	990.18	19.27	982.58	18.10	984.38	13.94	989.05	17.59	985.40	34.93	1001.28	10.26	983.21	15.53	993.78	14.93	985.88	25.28	977.23

Notes:

TOC: Top of PVC well casing

N.M. = not measured

AMSL = above mean sea level

^[3] Sampling was completed on 10/7/ 2020 and 10/8/2020 along with obtainment of water levels prior to purging and sampling. The 10/1/2020 water levels represent a site wide pheretic water level measurement event.

Table 3 - Groundwater Elevations

Omaha Public Power District - NOS Ash Disposal Area

Water Level Only Wells										
MW-26S		MW-27		MW-28		MW-29		MW-30		
TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		
1011.54		1021.09		1043.74		1031.59		1029.75		
Date	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)
3/22/2016	<i>Installed 10/18/2019</i>		<i>Installed 2/6//2020</i>		<i>Installed 2/6/2020</i>		<i>Installed 2/4/2020</i>		<i>Installed 2/5/2020</i>	
6/14/2016										
9/2/2016										
11/28/2016										
2/17/2017										
5/2/2017										
6/19/2017										
7/31/2017										
11/7/2017										
3/9/2018										
4/23/2018										
6/5/2018										
10/9/2018										
4/15/2019										
10/1/2019										
4/14/2020	18.35	993.19	28.72	992.37	43.95	999.79	35.58	996.01	33.65	996.10
10/1/2020	19.26	992.28	31.37	989.72	47.18	996.56	38.15	993.44	36.24	993.51

Notes:

TOC: Top of PVC well casing

N.M. = not measured

AMSL = above mean sea level

^[3] Sampling was completed on 10/7/ 2020 and 10/8/2020 along with obtainment of water levels prior to purging and sampling. The 10/1/2020 water levels represent a site wide pheretic water level measurement event.

Table 4 - Appendix III Constituents in Groundwater
 Omaha Public Power District - NOS Ash Landfill

	Constituent:	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit:	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-2	3/22/2016	1.6	267	23.1	<0.5	6.85	1320	1920
	6/14/2016	1.52	278	25.7	<0.5	6.80	774	1560
	9/2/2016	1.22	197	24.9	<0.5	7.04	503	2890
	11/28/2016	1.31	262	24.4	0.318	7.49	650	1420
	2/17/2017	1.92	292	19.3	0.563	7.79	915	2120
	5/2/2017	1.79	300	22.9	1.94	7.27	889	1840
	6/19/2017	1.48	277	24.1	<0.5	7.09	631	2020
	7/31/2017	1.81	299	24.8	0.583	7.37	799	1850
	11/7/2017	1.59	263	21.2	0.529	7.29	907	2210
	3/9/2018	1.88	292	27.4	<0.5	6.73	745	1570
	6/5/2018	1.15	239	28.5	<0.5	7.02	618	1460
	10/9/2018	1.38	302	22.2	<0.5	6.96	808	1720
	4/15/2019	2.26	339	22.5	<0.5	7.07	753	1850
	10/1/2019	2.17	306	18.2	<0.5	6.89	841	1930
	4/14/2020	1.90	319	22.0	0.427J	6.59	816	1670
10/7/2020	2.16	265	21.4	0.352J	6.81	807	1840	
MW-5	3/23/2016	0.545	458	47.7	<0.5	NA	1230	3150
	6/14/2016	0.533	434	52.1	<0.5	NA	1160	2530
	11/29/2016	0.565	443	44.3	<0.5	NA	1340	3150
	5/2/2017	0.564	435	46.9	1.82	NA	1330	2910
	6/5/2018	0.580	413	44.2	<0.5	7.44	1230	2610
	10/10/2018	0.528	412	41.6	<0.5	7.03	1240	2410
	4/16/2019 ^[1]	NA	NA	NA	NA	7.34	1150	NA
	10/1/2019	0.614	428	40.9	<0.5	6.88	1160	2620
	4/14/2020	0.573	439	40.7	0.460J	6.70	1080	2120
	10/8/2020	0.664	424	39.7	<0.23	6.81	1200	2380
MW-6	3/23/2016	0.376	263	217	<0.5	NA	219	1200
	6/14/2016	0.383	261	230	<0.5	NA	226	1100
	11/28/2016	0.468	314	272	<0.5	NA	366	1730
	5/2/2017	0.461	279	224	1.32	NA	314	1340
	3/9/2018	<0.8	316	315	0.525	6.44	349	1240
	6/5/2018	0.589	339	287	<0.5	7.03	293	1690
	10/9/2018	0.415	250	181	0.52	7.03	179	988
	4/15/2019 ^[1]	NA	NA	NA	NA	6.83	213	NA
	10/1/2019	0.543	348	326	0.511	6.67	309	1400
	4/14/2020	0.517	347	349	0.487J	6.55	297	1380
	10/7/2020	0.557	319	409	0.373J	6.47	346	320
MW-8	3/23/2016	1.01	133	10.6	<0.5	NA	618	964
	6/14/2016	0.974	142	15.1	0.518	NA	608	934
	11/29/2016	1.04	143	9.38	<0.5	NA	589	956
	5/2/2017	1.04	121	10.5	1.7	NA	519	814
	6/5/2018	1.54	149	12.9	<0.5	8.24	519	908
	10/10/2018	1.52	132	10.8	<0.5	7.96	548	900

Table 4 - Appendix III Constituents in Groundwater

Omaha Public Power District - NOS Ash Landfill

	Constituent:	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit:	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-8	4/15/2019 ⁽¹⁾	NA	NA	NA	NA	7.88	611	NA
	10/1/2019	2.18	159	9.03	<0.5	7.21	604	1010
	4/14/2020	2.22	162	10.9	0.577	7.60	565	948
	10/8/2020	2.24	139	10.8	<0.23	7.65	560	986
MW-9	3/22/2016	<0.2	147	121	1.35	6.83	23	708
	6/14/2016	<0.2	159	165	0.864	6.78	31.7	770
	9/2/2016	<0.2	122	146	<0.5	7.27	19.9	766
	11/28/2016	<0.2	166	177	<0.5	7.02	35.4	790
	2/17/2017	<0.2	116	120	0.585	7.47	26.2	640
	5/2/2017	<0.2	148	127	1.84	7.35	25.5	760
	19/6/2017	<0.2	150	149	0.52	6.99	22.0	888
	7/31/2017	<0.2	190	275	0.617	7.87	57.1	1180
	11/7/2017	<0.2	153	220	0.55	7.46	37.7	1090
	3/20/2018	<0.2	146	210	<0.5	6.68	46.1	844
	6/5/2018	<0.2	185	231	<0.5	7.00	57.5	1190
	10/9/2018	<0.2	159	194	0.592	6.74	45.5	872
	4/15/2019	<0.2	157	127	0.947	7.00	32.7	610
	10/1/2019	<0.2	140	164	<0.5	6.56	40.1	728
	4/13/2020	<0.1	165	160	0.562	6.58	36.4	732
10/7/2020	0.101	145	217	0.410J	6.74	48.0	820	
MW-13	3/22/2016	2.05	127	7.97	0.796	6.89	486	1050
	6/14/2016	1.97	138	6.7	<0.5	6.70	500	1030
	9/2/2016	2.02	116	8.06	0.652	7.03	458	1170
	11/28/2016	2.21	155	11.3	2.55	7.25	583	1140
	2/17/2017	2.02	153	6.35	<0.5	7.44	603	1320
	5/2/2017	1.8	156	7.52	1.05	7.30	650	1450
	6/19/2017	2.09	179	7.83	<0.5	7.07	590	1400
	7/31/2017	2.26	133	6.3	0.587	7.20	512	1150
	11/7/2017	1.71	129	6.81	0.67	6.79	581	1080
	3/9/2018	1.98	152	7.35	0.53	7.03	663	1340
	6/5/2018	1.78	151	7.93	<0.5	8.31	654	1490
	10/9/2018	1.77	161	7.05	<0.5	6.96	644	1190
	4/15/2019	2.73	215	10.5	1.05	7.13	808	1420
	10/1/2019	2.46	206	8.24	0.544	6.92	673	1440
	4/14/2020	2.22	213	9.24	0.817	6.58	794	1410
10/7/2020	2.19	188	8.82	0.391J	6.89	821	1640	
MW-15	3/22/2016	3.11	311	24.3	<0.5	7.09	262	1510
	6/14/2016	5.39	340	13	<0.5	6.80	934	1640
	9/2/2016	3.36	220	3.52	0.278	6.97	625	1460
	11/28/2016	2.87	285	28.2	3.48	7.32	886	1500
	2/17/2017	2.81	266	16.8	<0.5	7.65	863	1370
	5/2/2017	2.80	263	11.2	0.878	7.02	861	1280
	6/19/2017	2.57	248	9.99	<0.5	7.05	643	1320
	7/31/2017	3.01	247	11.4	<0.5	7.02	641	1140

Table 4 - Appendix III Constituents in Groundwater

Omaha Public Power District - NOS Ash Landfill

	Constituent:	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit:	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-15	11/7/2017	4.13	293	11.6	<0.5	7.10	900	1520
	3/9/2018	4.10	283	13.4	<0.5	7.24	819	1330
	6/5/2018	3.26	265	16.6	<0.5	7.42	745	1640
	10/9/2018	2.48	230	11.5	<0.5	7.10	656	1130
	4/15/2019	4.65	256	8.07	<0.5	7.09	634	1070
	10/1/2019	5.13	306	6.6	<0.5	6.61	633	1220
	4/14/2020	3.60	239	7.81	<0.23	7.68	514	928
	10/7/2020	3.44	199	9.51	<0.23	7.14	495	978
MW-16	3/22/2016	0.367	180	64.7	1.84	6.86	345	948
	6/14/2016	0.409	180	65.5	<0.5	6.67	340	968
	9/2/2016	0.333	143	57.3	<0.5	7.18	277	1160
	11/28/2016	0.312	184	60.7	<0.5	7.11	357	1040
	2/17/2017	0.433	181	59.2	1.37	7.51	374	1410
	5/2/2017	0.320	184	60.7	1.85	7.26	381	1030
	6/19/2017	0.371	194	59.3	<0.5	6.97	326	1460
	7/31/2017	0.423	200	57.9	0.53	7.12	352	1200
<i>Abandoned on August 4, 2017</i>								
MW-17	3/23/2016	0.668	392	51.3	1.36	6.60	1010	3150
	6/14/2016	0.706	376	50	<0.5	6.59	990	2360
	2/09/2016	0.637	320	43.0	<0.5	6.98	807	2660
	11/29/2016	0.644	390	49.7	<0.5	6.76	1080	2640
	2/17/2017	0.700	380	62.6	2.91	7.31	1010	2250
	5/2/2017	0.649	364	45.3	1.66	7.47	1090	3040
	6/19/2017	0.679	373	42.3	<0.5	6.93	944	2640
	7/31/2017	0.753	365	44.4	<0.5	7.05	913	2300
	11/7/2017	0.660	323	46.2	<0.5	7.14	952	2590
	3/9/2018	0.745	357	46.8	1.29	6.31	907	2010
	6/5/2018	0.745	363	43.6	<0.5	6.95	918	1990
	10/10/2018	0.615	328	41.9	<0.5	6.39	872	1980
	4/15/2019	0.762	297	38.7	0.573	6.53	834	1900
	10/1/2019	0.783	342	32.7	<0.5	6.06	724	1890
4/14/2020	0.757	323	30.2	0.274J	6.31	671	1650	
10/8/2020	0.709	269	31.1	<0.23	6.39	684	1600	
MW-18	3/22/2016	<0.2	115	<5	<0.5	6.86	24.8	504
	6/14/2016	<0.2	96.1	<5	<0.5	7.18	5	468
	9/2/2016	<0.2	73.4	<5	<0.5	7.20	<5	460
	11/28/2016	<0.2	97.6	<5	<0.5	7.47	<5	628
	2/17/2017	<0.2	94.8	<5	0.508	7.70	<5	474
	5/2/2017	<0.2	98.9	<5	1.32	7.27	<5	542
	6/19/2017	<0.2	98.4	<5	<0.5	7.20	<5	514
	7/31/2017	<0.2	98.8	<5	0.632	7.63	<5	468
	11/7/2017	<0.2	87.5	<5	0.704	7.22	<5	518
	3/9/2018	<0.2	97.3	<5	0.530	6.46	<5	438
	6/5/2018	<0.2	106	<5	0.528	6.91	<5	438
	10/9/2018	<0.2	94.2	<5	0.817	6.64	<5	398

Table 4 - Appendix III Constituents in Groundwater

Omaha Public Power District - NOS Ash Landfill

	Constituent:	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit:	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-18	4/15/2019	<0.2	74.6	<5	0.518	6.51	<5	416
	10/1/2019	<0.2	97	<5	<0.5	6.11	<5	384
	4/13/2020	<0.1	111	3.55J	0.559	6.43	<3.55	414
	10/7/2020	0.0811J	72.6	6.48	0.320J	6.75	<3.55	316
MW-19	3/22/2016	<0.2	103	6.5	<0.5	6.85	29.5	494
	6/14/2016	<0.2	110	7.2	<0.5	6.80	29.9	508
	9/2/2016	<0.2	82.8	<5	<0.5	7.12	21.5	492
	11/28/2016	<0.2	110	6.02	<0.5	7.29	20.7	484
	2/17/2017	<0.2	90.5	3.55	0.418	7.49	15.7	484
	5/2/2017	<0.2	107	3.7	0.804	7.39	10.6	566
	6/19/2017	<0.2	103	<5	<0.5	7.05	10.2	518
	7/31/2017	<0.2	105	<5	0.693	7.53	8.35	480
	11/7/2017	<0.2	93	<5	<0.5	6.98	6.91	410
	3/9/2018	<0.2	113	<5	<0.5	6.53	8.89	426
	6/5/2018	<0.2	100	<5	0.524	6.91	5.53	440
	10/9/2018	<0.2	106	11.9	<0.5	6.49	16.5	460
	4/15/2019	<0.2	101	<5	0.905	6.73	<5	444
	10/1/2019	<0.2	113	<5	0.511	6.05	<5	438
4/13/2020	0.113J	123	3.83J	0.701	6.49	<3.55	432	
10/7/2020	0.107	109	23.3	0.469J	6.79	33.5	482	

Notes:

mg/L = milligrams per liter

NA = Analyte Not Analyzed/Measured.

< = for the period of March 2016 through October 2019, the symbol indicates analyte not detected above the reporting limit, which is the value shown following the "<" symbol. Starting in January 2020, the symbol indicates analyte not detected above the method detection limit, which is the value shown following the "<" symbol.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

J = Value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	Constituent	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-2	3/22/2016	<0.001	0.245	0.115	<0.001	<0.0005	<0.005	0.000514	0.664	<0.5	0.000601	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.234	0.113	<0.001	<0.0005	<0.005	0.000566	0.488	<0.5	0.00211	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	0.22	0.104	<0.001	<0.0005	<0.005	0.000619	0.300	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	0.204	0.0952	<0.001	<0.0005	<0.005	0.000559	0.914	0.318	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	0.234	0.126	<0.001	<0.0005	<0.005	0.000656	0.679	0.563	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	0.231	0.118	<0.001	<0.0005	<0.005	0.000833	0.123	1.94	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	0.212	0.101	<0.001	<0.0005	<0.005	0.000725	0.469	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/31/2017	<0.001	0.217	0.117	<0.001	<0.0005	<0.005	0.000953	0.549	0.583	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	0.137	0.0923	NA	<0.0005	<0.005	NA	NA	0.529	<0.0005	NA	<0.0002	NA	<0.005	NA
	3/9/2018	<0.001	0.219	0.113	<0.001	<0.0005	<0.005	0.000620	1.050	<0.5	<0.0005	0.0415	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.225	0.0896	<0.001	<0.0005	<0.005	0.000997	0.422	<0.5	0.000586	0.0330	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	0.247	0.112	NA	<0.0005	<0.005	0.00135	0.901	<0.5	<0.0005	0.0423	<0.0002	<0.002	<0.005	NA
	4/15/2019	<0.001	0.234	0.140	<0.001	<0.0005	<0.005	0.00156	1.010	<0.5	<0.0005	0.0444	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	0.141	0.141	<0.001	<0.0001	<0.005	0.000828	0.620	<0.5	<0.0005	0.0424	<0.0002	<0.002	<0.005	<0.001
4/14/2020	<0.00058	0.241	0.0997	<0.00027	<0.000039	<0.0011	0.00113	0.455	0.427J	0.000437J	0.0398	<0.0001	<0.0011	<0.001	<0.00026	
10/7/2020	<0.00051	0.224	0.100	<0.00027	<0.000049	<0.0011	0.000535	0.846	0.352J	0.000455J	0.0392	<0.0001	0.00112J	<0.001	<0.00026	
MW-5	3/23/2016	<0.001	0.0432	0.0437	<0.001	<0.0005	<0.005	<0.0005	0.391U	<0.5	<0.0005	0.0799	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.0389	0.0701	<0.001	<0.0005	<0.005	0.000509	0.653	<0.5	<0.0005	0.0866	<0.0002	<0.002	<0.005	<0.001
	11/29/2016	<0.001	0.0564	0.0491	<0.001	<0.0005	<0.005	<0.0005	0.637	<0.5	<0.0005	0.0894	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	0.0544	0.0488	<0.001	<0.0005	<0.005	<0.0005	0.0966U	1.82	<0.0005	0.0819	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.0486	0.0447	<0.001	<0.0005	<0.005	<0.0005	NA	<0.5	0.00262	0.07	<0.0002	<0.002	<0.005	<0.001
	10/10/2018	<0.001	0.0549	0.0402	NA	<0.0005	<0.005	<0.0005	0.305	<0.5	0.000627	0.0797	<0.0002	<0.002	<0.005	NA
	4/16/2019	NA	0.0545	0.0625	NA	<0.0005	<0.005	NA	NA	NA	<0.0005	NA	NA	NA	<0.005	NA
	10/1/2019	<0.001	0.0557	0.0467	<0.001	<0.0001	<0.005	<0.0005	0.373U	<0.5	<0.0005	0.0869	<0.0002	<0.002	<0.005	<0.001
	4/14/2020	<0.00058	0.0568	0.0669	<0.00027	<0.000039	<0.0011	0.000388J	0.0513U	0.460J	0.000542	0.0718	<0.0001	<0.0011	<0.001	<0.00026
	10/8/2020	<0.00051	0.0681	0.0477	<0.00027	<0.000049	<0.0011	0.000350J	0.722	<0.23	<0.00011	0.0848	<0.0001	0.00110J	<0.001	<0.00026
MW-6	3/22/2016	<0.001	0.0365	0.183	<0.001	0.00213	<0.005	0.00592	1.16	<0.5	0.00596	<0.05	<0.0002	0.0435	<0.005	<0.001
	6/14/2016	<0.001	0.0324	0.225	<0.001	<0.0005	<0.005	0.00527	0.825	<0.5	0.00269	<0.05	<0.0002	0.0507	<0.005	<0.001
	11/28/2016	<0.001	0.0133	0.166	<0.001	<0.0005	<0.005	0.0064	0.653	<0.5	0.00139	<0.05	<0.0002	0.0696	<0.005	<0.001
	5/2/2017	<0.001	0.0243	0.195	<0.001	<0.0005	<0.005	0.00562	0.819	1.32	0.00169	<0.05	<0.0002	0.061	<0.005	<0.001
	3/9/2018	<0.004	0.0194	0.165	<0.004	<0.002	<0.02	0.00654	0.673	0.525	<0.002	0.0407	<0.0002	0.0683	<0.02	<0.004
	6/5/2018	<0.001	0.0136	0.196	<0.001	0.000564	<0.005	0.007	NA	<0.5	0.00319	0.048	<0.0002	0.0702	<0.005	<0.001
	10/9/2018	<0.001	0.0393	0.295	NA	0.000834	<0.005	0.00661	1.05	0.52	0.0066	0.0407	<0.0002	0.0537	<0.005	NA
	4/15/2019	NA	0.02	0.212	NA	<0.0005	<0.005	NA	NA	NA	0.00286	NA	NA	NA	<0.005	NA
	10/1/2019	<0.001	0.017	0.192	<0.001	0.000317	<0.005	0.00761	0.985	0.511	0.00287	0.051	<0.0002	0.0654	<0.005	<0.001
	4/14/2020	<0.00058	0.0198	0.197	<0.00027	0.000209	<0.0011	0.00673	0.462U	0.487J	0.00132	0.0432	<0.0001	0.0605	<0.001	<0.00026
10/7/2020	<0.00051	0.0123	0.143	<0.00027	0.000250	<0.0011	0.00770	0.827	0.373J	0.00159	0.0461	<0.0001	0.0642	<0.001	<0.00026	
MW-8	3/23/2016	<0.001	0.0163	0.088	<0.001	<0.0005	<0.005	<0.0005	0.353U	<0.5	0.00168	<0.05	<0.0002	0.107	<0.005	<0.001
	6/14/2016	<0.001	0.0162	0.1	<0.001	<0.0005	<0.005	<0.0005	0.380U	0.518	0.00169	<0.05	<0.0002	0.102	<0.005	<0.001
	11/29/2016	<0.001	0.021	0.0954	<0.001	<0.0005	<0.005	0.000516	0.565	<0.5	0.0019	<0.05	<0.0002	0.0994	<0.005	<0.001
	5/2/2017	<0.001	0.0256	0.0813	<0.001	<0.0005	<0.005	<0.0005	0.647	1.7	0.00155	<0.05	<0.0002	0.101	<0.005	<0.001
	6/5/2018	<0.001	0.0189	0.0954	<0.001	<0.0005	<0.005	0.00281	NA	<0.5	0.00956	0.0115	<0.0002	0.0753	<0.005	<0.001
	10/10/2018	<0.001	0.0121	0.0892	NA	<0.0005	<0.005	0.000864	0.31	<0.5	0.002	0.0108	<0.0002	0.095	<0.005	NA
	4/16/2019	NA	0.0122	0.101	NA	<0.0005	<0.005	NA	NA	NA	0.000657	NA	NA	NA	<0.005	NA
	10/1/2019	<0.001	0.0106	0.101	<0.001	<0.0001	<0.005	0.000623	0.535U	<0.5	<0.0005	0.0149	<0.0002	0.111	<0.005	<0.001
	10/1/2019	<0.001	0.0106	0.101	<0.001	<0.0001	<0.005	0.000623	0.535U	<0.5	<0.0005	0.0149	<0.0002	0.111	<0.005	<0.001
	4/14/2020	<0.00058	0.012	0.0955	<0.00027	<0.000039	<0.0011	0.000503	0.215U	0.577	0.000349J	0.0131	<0.0001	0.102	<0.001	<0.00026
10/8/2020	<0.00051	0.00998	0.0851	<0.00027	0.0000660J	<0.0011	0.000543	0.216U	<0.23	0.000146J	0.0133	<0.0001	0.101	<0.001	<0.00026	

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	Constituent	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-9	3/22/2016	<0.001	0.00454	0.442	<0.001	<0.0005	<0.005	0.00146	1.240	1.35	0.00366	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.00542	0.542	<0.001	<0.0005	<0.005	0.00148	0.822	0.864	0.00339	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	0.00397	0.538	<0.001	<0.0005	<0.005	0.00103	2.010	<0.5	0.00289	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	0.00572	0.536	<0.001	<0.0005	<0.005	0.00159	1.910	<0.5	0.00499	0.0533	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	0.0118	0.383	<0.001	<0.0005	0.00555	0.00265	0.623	0.585	0.00419	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	0.00423	0.487	<0.001	<0.0005	<0.005	0.000974	1.160	1.84	0.00246	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	0.00345	0.481	<0.001	<0.0005	<0.005	0.00123	2.620	0.517	0.00322	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/31/2017	<0.001	0.00662	0.624	<0.001	<0.0005	<0.005	0.00195	3.280	0.617	0.00474	0.0505	0.00022	<0.002	<0.005	<0.001
	07/11/2017	NA	0.00772	0.500	NA	<0.0005	<0.005	NA	NA	0.55	0.00461	NA	<0.0002	NA	<0.005	NA
	3/20/2018	<0.001	0.00777	0.526	<0.001	<0.0005	<0.005	0.000895	1.250	<0.5	0.00284	0.0428	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.00768	0.625	<0.001	<0.0005	<0.005	0.00293	2.450	<0.5	0.00885	0.0541	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	0.00571	0.469	NA	<0.0005	<0.005	0.00150	2.410	0.592	0.00407	0.0482	<0.0002	<0.002	<0.005	NA
	4/15/2019	<0.001	0.00677	0.576	<0.001	<0.0005	<0.005	0.00234	1.030	0.947	0.00559	0.0426	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	0.0054	0.468	<0.001	<0.001	<0.005	<0.0005	0.939	<0.5	0.000655	0.0473	<0.0002	<0.002	<0.005	<0.001
	4/13/2020	<0.00058	0.00626	0.605	<0.00027	0.000161	0.00154J	0.00166	1.16	0.562	0.00392	0.048	<0.0001	<0.0011	<0.001	<0.00026
10/7/2020	<0.00051	0.00544	0.523	<0.00027	<0.000049	<0.0011	0.000199J	1.38	0.410J	0.000464J	0.0478	<0.0001	<0.0011	<0.001	<0.00026	
MW-13	3/22/2016	<0.001	0.0923	0.0652	<0.001	<0.0005	<0.005	<0.0005	0.575	0.796	<0.0005	<0.05	<0.0002	0.704	0.0205	<0.001
	6/14/2016	<0.001	0.217	0.0906	<0.001	<0.0005	<0.005	<0.0005	0.389	<0.5	<0.0005	<0.05	<0.0002	0.592	0.0141	<0.001
	9/2/2016	<0.001	0.142	0.0825	<0.001	<0.0005	<0.005	<0.0005	0.362	0.652	<0.0005	<0.05	<0.0002	0.945	0.0313	<0.001
	11/28/2016	<0.001	0.154	0.0959	<0.001	<0.0005	<0.005	<0.0005	0.27	2.55	<0.0005	<0.05	<0.0002	0.837	0.0248	<0.001
	2/17/2017	<0.001	0.112	0.0946	<0.001	<0.0005	<0.005	<0.0005	0.455	<0.5	<0.0005	<0.05	<0.0002	0.817	0.0345	<0.001
	5/2/2017	<0.001	0.133	0.0882	<0.001	<0.0005	<0.005	<0.0005	0.301	1.05	<0.0005	<0.05	<0.0002	0.951	0.0403	<0.001
	6/19/2017	<0.001	0.26	0.118	<0.001	<0.0005	<0.005	<0.0005	0.3	<0.5	<0.0005	<0.05	<0.0002	0.881	0.0372	<0.001
	7/31/2017	<0.001	0.274	0.112	<0.001	<0.0005	<0.005	<0.0005	0.298	0.587	<0.0005	<0.05	<0.0002	0.839	0.0233	<0.001
	07/11/2017	NA	0.0925	0.0682	NA	<0.0005	<0.005	NA	NA	0.67	<0.0005	NA	<0.0002	NA	0.00837	NA
	3/9/2018	<0.001	0.205	0.0982	<0.001	<0.0005	<0.005	0.000613	0.546	0.53	<0.0005	0.0212	<0.0002	1.22	0.0609	<0.001
	6/5/2018	<0.001	0.0544	0.0605	<0.001	<0.0005	<0.005	0.000718	0.374	<0.5	<0.0005	0.0205	<0.0002	1.28	0.0483	<0.001
	10/9/2018	<0.001	0.0782	0.0775	NA	<0.0005	<0.005	<0.0005	0.435	<0.5	<0.0005	0.0213	<0.0002	0.980	0.0298	NA
	4/15/2019	<0.001	0.108	0.119	<0.001	<0.0005	<0.005	<0.0005	0.223U	1.05	<0.0005	0.0274	<0.0002	0.916	0.0150	<0.001
	10/1/2019	<0.001	0.104	0.113	<0.001	0.000294	<0.005	<0.0005	0.770	0.544	<0.0005	0.0283	<0.0002	0.915	0.0204	<0.001
	4/14/2020	<0.00058	0.0901	0.0979	<0.00027	0.000226	<0.0011	0.000527	0.231U	0.817	<0.00027	0.0232	<0.0001	1.22	0.0357	<0.00026
10/7/2020	<0.00051	0.167	0.111	<0.00027	0.000464	<0.0011	0.000661	0.672	0.391J	<0.00011	0.0256	<0.0001	1.41	0.0408	<0.00026	
MW-15	3/22/2016	0.00145	<0.002	0.0314	<0.001	<0.0005	0.0194	<0.0005	0.245	<0.5	<0.0005	<0.05	<0.0002	0.389	0.104	<0.001
	6/14/2016	0.00195	<0.002	0.0552	<0.001	<0.0005	0.0199	<0.0005	0.378	<0.5	0.000668	<0.05	<0.0002	0.254	0.115	<0.001
	9/2/2016	0.0015	<0.002	0.066	<0.001	<0.0005	0.00548	<0.0005	0.0439	0.278	<0.0005	<0.05	<0.0002	0.319	0.0867	<0.001
	11/28/2016	0.00166	<0.002	0.0523	<0.001	<0.0005	<0.005	<0.0005	0.871	3.48	<0.0005	<0.05	<0.0002	0.402	0.0896	<0.001
	2/17/2017	0.00204	0.00241	0.0448	<0.001	<0.0005	<0.005	<0.0005	0.143	<0.5	<0.0005	<0.05	<0.0002	0.408	0.105	<0.001
	5/2/2017	0.0013	<0.002	0.0382	<0.001	<0.0005	0.0153	<0.0005	0.158	0.878	<0.0005	<0.05	<0.0002	0.316	0.0785	<0.001
	6/19/2017	0.00119	<0.002	0.0447	<0.001	<0.0005	0.00678	<0.0005	0.229	<0.5	<0.0005	<0.05	<0.0002	0.242	0.0638	<0.001
	7/31/2017	0.00131	<0.002	0.0467	<0.001	<0.0005	<0.005	<0.0005	0.455	<0.5	<0.0005	<0.05	<0.0002	0.264	0.0699	<0.001
	07/11/2017	NA	0.00240	0.0428	NA	<0.0005	0.0253	NA	NA	<0.5	<0.0005	NA	<0.0002	NA	0.0850	NA
	3/9/2018	0.00172	0.00337	0.0405	<0.001	<0.0005	<0.005	<0.0005	0.232	<0.5	<0.0005	0.0126	<0.0002	0.353	0.0653	<0.001
	6/5/2018	0.00157	<0.002	0.0424	<0.001	<0.0005	0.0267	<0.0005	0.282U	<0.5	<0.0005	<0.0100	<0.0002	0.353	0.0934	<0.001
	10/9/2018	0.00168	<0.002	0.0394	NA	<0.0005	0.0182	<0.0005	0.303U	<0.5	<0.0005	0.0139	<0.0002	0.290	0.0631	NA
	4/15/2019	0.00207	<0.002	0.0752	<0.001	<0.0005	0.0204	<0.0005	-0.0756U	<0.5	<0.0005	0.0111	<0.0002	0.208	0.0553	<0.001
	10/1/2019	0.00218	<0.002	0.0666	<0.001	0.000109	0.0284	<0.0005	0.419U	<0.5	<0.0005	0.0156	<0.0002	0.245	0.068	<0.001
	4/14/2020	0.00122	0.00159J	0.0701	<0.00027	0.0000540J	0.00495J	<0.000091	0.175U	<0.23	<0.00027	0.00782J	<0.0001	0.211	0.056	<0.00026
10/7/2020	0.00155	0.00230	0.0612	<0.00027	0.0000710J	0.00178J	<0.000091	0.162U	<0.23	0.000224J	0.00986J	<0.0001	0.216	0.0540	<0.00026	

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	Constituent	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-16	3/22/2016	<0.001	<0.002	0.0665	<0.001	<0.0005	<0.005	0.00083	0.214	1.84	<0.0005	<0.05	<0.0002	0.018	<0.005	<0.001
	6/14/2016	<0.001	<0.002	0.0730	<0.001	<0.0005	<0.005	0.000634	0.392	<0.5	<0.0005	0.0514	<0.0002	0.0125	<0.005	<0.001
	9/2/2016	<0.001	0.00233	0.0837	<0.001	<0.0005	<0.005	0.00126	0.22	<0.5	<0.0005	<0.05	<0.0002	0.0262	<0.005	<0.001
	11/28/2016	<0.001	<0.002	0.0794	<0.001	<0.0005	<0.005	0.000925	0.436	<0.5	<0.0005	0.0501	<0.0002	0.0193	<0.005	<0.001
	2/17/2017	<0.001	<0.002	0.0857	<0.001	<0.0005	<0.005	0.00102	0.362	1.37	<0.0005	0.053	<0.0002	0.0164	<0.005	<0.001
	5/2/2017	<0.001	<0.002	0.0818	<0.001	<0.0005	<0.005	0.000952	0.354	1.85	<0.0005	0.0503	<0.0002	0.00651	<0.005	<0.001
	6/19/2017	<0.001	<0.002	0.0752	<0.001	<0.0005	<0.005	0.000769	0.463	<0.5	<0.0005	<0.05	<0.0002	0.0105	<0.005	<0.001
	7/31/2017	<0.001	<0.002	0.0722	<0.001	<0.0005	<0.005	0.000519	0.353	0.528	<0.0005	<0.05	<0.0002	0.0185	<0.005	<0.001
<i>Abandoned on August 4, 2017</i>																
MW-17	3/23/2016	<0.001	0.00735	0.0276	<0.001	<0.0005	<0.005	0.00813	0.366	1.36	<0.0005	0.114	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	0.0360	0.0396	<0.001	<0.0005	<0.005	0.0127	0.469	<0.5	<0.0005	0.129	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	0.0152	0.0424	<0.001	<0.0005	<0.005	0.0134	0.651	<0.5	<0.0005	0.116	<0.0002	<0.002	<0.005	<0.001
	11/29/2016	<0.001	0.00691	0.0356	<0.001	<0.0005	<0.005	0.00829	0.479	<0.5	<0.0005	0.116	<0.0002	0.00219	<0.005	<0.001
	2/17/2017	<0.001	0.0219	0.0406	<0.001	<0.0005	<0.005	0.0112	NA	2.91	0.0071	0.115	<0.0002	0.00214	<0.005	<0.001
	5/2/2017	<0.001	0.0300	0.0411	<0.001	<0.0005	<0.005	0.0113	0.059	1.66	<0.0005	0.116	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	0.0163	0.0361	<0.001	<0.0005	<0.005	0.012	0.777	<0.5	<0.0005	0.114	<0.0002	<0.002	<0.005	<0.001
	7/31/2017	<0.001	0.0159	0.0373	<0.001	<0.0005	<0.005	0.0123	0.284	<0.5	<0.0005	0.109	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	0.00794	0.0305	NA	<0.0005	<0.005	NA	NA	<0.5	<0.0005	NA	<0.0002	NA	<0.005	NA
	3/9/2018	<0.001	0.0257	0.0351	<0.001	<0.0005	<0.005	0.0107	0.738	1.29	<0.0005	0.112	<0.0002	0.0032	<0.005	<0.001
	6/5/2018	<0.001	0.0224	0.0505	<0.001	<0.0005	<0.005	0.0134	0.960	<0.5	<0.0005	0.0990	<0.0002	0.00356	<0.005	<0.001
	10/10/2018	<0.001	0.0173	0.0346	NA	<0.0005	<0.005	0.0114	1.02	<0.5	<0.0005	0.104	<0.0002	<0.002	<0.005	NA
	4/15/2019	<0.001	0.0102	0.0369	<0.001	<0.0005	<0.005	0.0103	0.328U	0.573	<0.0005	0.0948	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	0.0117	0.0407	<0.001	<0.0001	<0.005	0.0123	1.12	<0.5	<0.0005	0.12	<0.0002	0.00212	<0.005	<0.001
4/14/2020	<0.00058	0.0111	0.033	<0.00027	<0.000039	<0.0011	0.0101	0.467	0.274J	<0.00027	0.0969	<0.0001	0.00264	<0.001	<0.00026	
10/8/2020	<0.00051	0.0206	0.0323	<0.00027	<0.000049	<0.0011	0.00898	0.702	<0.23	<0.00011	0.0948	<0.0001	<0.00440	<0.001	<0.00026	
MW-18	3/22/2016	<0.001	0.00345	0.343	<0.001	<0.0005	<0.005	0.00152	2.7	<0.5	0.00479	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	<0.002	0.319	<0.001	<0.0005	<0.005	<0.0005	0.72	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	<0.002	0.307	<0.001	<0.0005	<0.005	<0.0005	0.814	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	<0.002	0.306	<0.001	<0.0005	<0.005	<0.0005	1.56	<0.5	0.000577	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	<0.002	0.314	<0.001	<0.0005	<0.005	<0.0005	0.907	0.508	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	<0.002	0.329	<0.001	<0.0005	<0.005	<0.0005	NA	1.32	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	<0.002	0.304	<0.001	<0.0005	<0.005	<0.0005	0.465	<0.5	<0.0005	<0.05	0.000204	<0.002	<0.005	<0.001
	7/31/2017	<0.001	<0.002	0.309	<0.001	<0.0005	<0.005	<0.0005	0.899	0.632	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	NA	NA	NA	NA	NA	NA	NA	0.704	NA	NA	NA	NA	NA	NA
	3/9/2018	<0.001	<0.002	0.303	<0.001	<0.0005	<0.005	<0.0005	1.090	0.530	0.00137	0.0282	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	0.00327	0.449	<0.001	0.000537	<0.005	0.00271	2.20	0.528	0.0114	0.0243	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	<0.002	0.293	NA	<0.0005	<0.005	<0.0005	1.21	0.817	0.000938	0.0254	NA	<0.002	<0.005	NA
	4/15/2019	<0.001	<0.002	0.272	<0.001	<0.0005	<0.005	<0.0005	0.765	0.518	<0.0005	0.0203	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	<0.002	0.321	<0.001	<0.0001	<0.005	<0.0005	0.666	<0.5	<0.0005	0.0263	<0.0002	<0.002	<0.005	<0.001
4/13/2020	<0.00058	0.00165J	0.328	<0.00027	<0.000039	<0.0011	<0.000091	0.246U	0.559	0.000813	0.0262	<0.0001	<0.0011	<0.001	<0.00026	
10/7/2020	<0.00051	0.000972J	0.215	<0.00027	<0.000049	<0.0011	0.0000920J	0.396U	0.320J	0.000219J	0.0203	<0.0001	<0.0011	<0.001	<0.00026	
MW-19	3/22/2016	<0.001	<0.002	0.33	<0.001	<0.0005	<0.005	<0.0005	1.93	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/14/2016	<0.001	<0.002	0.324	<0.001	<0.0005	<0.005	<0.0005	0.386	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	9/2/2016	<0.001	<0.002	0.325	<0.001	<0.0005	<0.005	<0.0005	1.55	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	11/28/2016	<0.001	<0.002	0.317	<0.001	<0.0005	<0.005	<0.0005	1.14	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/17/2017	<0.001	<0.002	0.281	<0.001	<0.0005	<0.005	<0.0005	0.82	0.418	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	5/2/2017	<0.001	<0.002	0.328	<0.001	<0.0005	<0.005	<0.0005	NA	0.804	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/19/2017	<0.001	<0.002	0.297	<0.001	<0.0005	<0.005	<0.0005	0.744	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001

Table 5 - Appendix IV Constituents in Groundwater
Omaha Public Power District - NOS Ash Landfill

	Constituent	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-19	7/31/2017	<0.001	<0.002	0.296	<0.001	<0.0005	<0.005	<0.0005	1	0.693	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	07/11/2017	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA
	3/9/2018	<0.001	<0.002	0.323	<0.001	<0.0005	<0.005	<0.0005	0.691	<0.5	<0.0005	0.0334	<0.0002	<0.002	<0.005	<0.001
	6/5/2018	<0.001	<0.002	0.355	<0.001	<0.0005	<0.005	<0.0005	1.40	0.524	0.00121	0.0306	<0.0002	<0.002	<0.005	<0.001
	10/9/2018	<0.001	<0.002	0.334	NA	<0.0005	<0.005	<0.0005	0.364U	<0.5	<0.0005	0.0336	NA	<0.002	<0.005	NA
	4/15/2019	<0.001	<0.002	0.322	<0.001	<0.0005	<0.005	<0.0005	0.614	0.905	<0.0005	0.0333	<0.0002	<0.002	<0.005	<0.001
	10/1/2019	<0.001	<0.002	0.331	<0.001	<0.0001	<0.005	<0.0005	0.932	0.511	<0.0005	0.0386	<0.0002	<0.002	<0.005	<0.001
	4/13/2020	<0.00058	<0.00088	0.328	<0.00027	<0.000039	<0.0011	<0.000091	0.623	0.701	<0.00027	0.0359	<0.0001	<0.0011	<0.001	<0.00026
	10/7/2020	<0.00051	<0.00088	0.363	<0.00027	<0.000049	<0.0011	<0.000091	0.698U	0.469J	<0.00011	0.0363	<0.0001	<0.0011	<0.001	<0.00026

Notes:

mg/L = milligrams per liter

pCi/L = picoCuries per liter

NA = Analyte Not Analyzed/Measured.

< = for the period of March 2016 through October 2019, the symbol indicates analyte not detected above the reporting limit, which is the value shown following the "<" symbol. Starting in January 2020, the symbol indicates analyte not detected above the method detection limit, which is the value shown following the "<" symbol.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

U = Result is less than the sample detection limit.

J = Value is less than the Reporting Limit but greater than or equal to the Method Detection Limit. The concentration is an approximate value.

Table 6 - Background Threshold Values for Assessment Monitoring
 Omaha Public Power District - NOS Ash Landfill

Constituents	Units	Background Threshold Values (BTVs)
Appendix III		
Boron	mg/l	0.2
Calcium	mg/l	195
Chloride	mg/l	275
Fluoride ^[1]	mg/l	1.84
pH (LPL) ^[2]	SU	6.29
pH (UPL) ^[3]	SU	7.78
Sulfate	mg/l	57.5
TDS	mg/l	1,190
Appendix IV		
Antimony	mg/l	0.001
Arsenic	mg/l	0.0118
Barium	mg/l	0.625
Beryllium	mg/l	0.001
Cadmium	mg/l	0.000537
Chromium	mg/l	0.005
Cobalt	mg/l	0.00293
Fluoride ^[1]	mg/l	1.84
Lead	mg/l	0.0114
Lithium	mg/l	0.0541
Mercury	mg/l	0.00022
Molybdenum	mg/l	0.002
Radium 226 + 228	pCi/l	3.77
Selenium	mg/l	0.005
Thallium	mg/l	0.001

Notes:

^[1] Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

^[2] Indicates the lower bound of the range is the lower prediction limit (LPL).

^[3] Indicates the upper bound is the upper prediction limit (UPL).

Table 7 - Established Groundwater Protection Standards

Omaha Public Power District - NOS Ash Landfill

Constituents	Units	Established Groundwater Protection Standard (GWPS) ^[1]
Appendix IV		
Antimony	mg/l	0.006
Arsenic	mg/l	0.0118 ^[2]
Barium	mg/l	2
Beryllium	mg/l	0.004
Cadmium	mg/l	0.005
Chromium	mg/l	0.1
Cobalt	mg/l	0.006
Flouride	mg/l	4
Lead	mg/l	0.015
Lithium	mg/l	0.0541 ^[2]
Mercury	mg/l	0.002
Molybdenum	mg/l	0.1
Radium 226 + 228	pCi/l	5
Selenium	mg/l	0.05
Thallium	mg/l	0.002

Notes:

^[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

^[2] GWPS is established as the upper tolerance limit (UTL) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).



Appendix A

Field Sampling Forms

NORTH OMAHA STATION

Water Levels Prior to Purging (Feet Below TOC)

MW2	Date of Sampling	4/13/2020	Time of Sampling	10:44	Static Water Level	21.32
MW4	Date of Sampling	4/13/2020	Time of Sampling	10:55	Static Water Level	12.40
MW5	Date of Sampling	4/13/2020	Time of Sampling	11:26	Static Water Level	19.01
MW6	Date of Sampling	4/13/2020	Time of Sampling	11:00	Static Water Level	13.15
MW7	Date of Sampling	4/13/2020	Time of Sampling	11:04	Static Water Level	16.72
MW8	Date of Sampling	4/13/2020	Time of Sampling	11:12	Static Water Level	17.51
MW9	Date of Sampling	4/13/2020	Time of Sampling	10:20	Static Water Level	23.89
MW10	Date of Sampling	4/13/2020	Time of Sampling	11:05	Static Water Level	15.74
MW11	Date of Sampling	4/13/2020	Time of Sampling	11:02	Static Water Level	12.04
MW12	Date of Sampling	4/13/2020	Time of Sampling	11:14	Static Water Level	16.40
MW13	Date of Sampling	4/13/2020	Time of Sampling	10:40	Static Water Level	17.38
MW15	Date of Sampling	4/13/2020	Time of Sampling	10:54	Static Water Level	11.29
MW17	Date of Sampling	4/13/2020	Time of Sampling	11:19	Static Water Level	16.50
MW18	Date of Sampling	4/13/2020	Time of Sampling	10:06	Static Water Level	33.74
MW19	Date of Sampling	4/13/2020	Time of Sampling	10:12	Static Water Level	33.47
MW20	Date of Sampling	4/13/2020	Time of Sampling	10:26	Static Water Level	8.20
MW22	Date of Sampling	4/13/2020	Time of Sampling	11:36	Static Water Level	12.92
MW23	Date of Sampling	4/13/2020	Time of Sampling	10:35	Static Water Level	11.87

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Equipment Calibration Sheet

Date: 4/13/2020

Time: 12:39

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multiparameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.46	$\mu\text{S}/\text{cm}$
Turbidity	0.0	NTU
DO	10.53	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

Equipment Calibration Sheet

Date: 4/14/2020

Time: 6:56

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multiparameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.47	$\mu\text{S}/\text{cm}$
Turbidity	0.0	NTU
DO	9.71	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

NORTH OMAHA STATION

Water Levels Prior to Purging (Feet Below TOC)

MW2	Date of Sampling	10/1/2020	Time of Sampling	14:07	Static Water Level	23.82
MW4	Date of Sampling	10/1/2020	Time of Sampling	14:40	Static Water Level	14.41
MW5	Date of Sampling	10/1/2020	Time of Sampling	16:10	Static Water Level	21.05
MW6	Date of Sampling	10/1/2020	Time of Sampling	14:46	Static Water Level	14.98
MW7	Date of Sampling	10/1/2020	Time of Sampling	14:53	Static Water Level	19.27
MW8	Date of Sampling	10/1/2020	Time of Sampling	15:39	Static Water Level	19.13
MW9	Date of Sampling	10/1/2020	Time of Sampling	13:38	Static Water Level	30.10
MW10	Date of Sampling	10/1/2020	Time of Sampling	14:52	Static Water Level	18.10
MW11	Date of Sampling	10/1/2020	Time of Sampling	14:48	Static Water Level	13.94
MW12	Date of Sampling	10/1/2020	Time of Sampling	15:41	Static Water Level	17.59
MW13	Date of Sampling	10/1/2020	Time of Sampling	14:05	Static Water Level	20.39
MW15	Date of Sampling	10/1/2020	Time of Sampling	14:39	Static Water Level	14.22
MW17	Date of Sampling	10/1/2020	Time of Sampling	15:45	Static Water Level	18.51
MW18	Date of Sampling	10/1/2020	Time of Sampling	13:12	Static Water Level	38.03
MW19	Date of Sampling	10/1/2020	Time of Sampling	13:17	Static Water Level	37.86
MW20	Date of Sampling	10/1/2020	Time of Sampling	16:21	Static Water Level	10.26
MW22	Date of Sampling	10/1/2020	Time of Sampling	14:30	Static Water Level	15.53
MW23	Date of Sampling	10/1/2020	Time of Sampling	14:00	Static Water Level	14.93

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Equipment Calibration Sheet

Date: 10/7/2020

Time: 8:15

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multiparameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.37	$\mu\text{S}/\text{cm}$
Turbidity	0.0	NTU
DO	10.29	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units

Equipment Calibration Sheet

Date: 10/8/2020

Time: 8:08

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multiparameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	SU
Conductivity	4.53	$\mu\text{S}/\text{cm}$
Turbidity	0.0	NTU
DO	10.37	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

SU = Standard Units



Appendix B

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-179739-1

Client Project/Site: North Omaha Station CCR

For:

Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Attn: Kyle Uhing



Authorized for release by:
4/28/2020 3:20:00 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
shawn.hayes@testamericainc.com

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Job ID: 310-179739-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-179739-1

Comments

No additional comments.

Receipt

The samples were received on 4/16/2020 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.4° C, 0.8° C and 0.8° C.

HPLC/IC

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

Metals

Method 6020A: The continuing calibration verification (CCV) associated with batch 310-276721 recovered above the upper control limit for Boron and Selenium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW9 (310-179739-5) and MW18 (310-179739-9).

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.

Sample Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-179739-1	MW2	Water	04/14/20 10:10	04/16/20 09:30	
310-179739-2	MW5	Water	04/14/20 16:47	04/16/20 09:30	
310-179739-3	MW6	Water	04/14/20 13:20	04/16/20 09:30	
310-179739-4	MW8	Water	04/14/20 14:54	04/16/20 09:30	
310-179739-5	MW9	Water	04/13/20 18:14	04/16/20 09:30	
310-179739-6	MW13	Water	04/14/20 09:10	04/16/20 09:30	
310-179739-7	MW15	Water	04/14/20 12:22	04/16/20 09:30	
310-179739-8	MW17	Water	04/14/20 15:51	04/16/20 09:30	
310-179739-9	MW18	Water	04/13/20 14:14	04/16/20 09:30	
310-179739-10	MW19	Water	04/13/20 15:43	04/16/20 09:30	
310-179739-11	DUP1	Water	04/14/20 00:00	04/16/20 09:30	

Detection Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW2

Lab Sample ID: 310-179739-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22.0		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.427	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	816		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.241		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0997		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	1.90		0.200	0.100	mg/L	1		6020A	Total/NA
Calcium	319		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00113		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000437	J	0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0398		0.0100	0.00230	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1670		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW5

Lab Sample ID: 310-179739-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	40.7		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.460	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	1080		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0568		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0669		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	0.573		0.200	0.100	mg/L	1		6020A	Total/NA
Calcium	439		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000388	J	0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000542		0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0718		0.0100	0.00230	mg/L	1		6020A	Total/NA
Total Dissolved Solids	2120		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW6

Lab Sample ID: 310-179739-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	349		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.487	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	297		5.00	3.55	mg/L	5		9056A	Total/NA
Arsenic	0.0198		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.197		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	0.517		0.200	0.100	mg/L	1		6020A	Total/NA
Cadmium	0.000209		0.000100	0.0000390	mg/L	1		6020A	Total/NA
Calcium	347		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00673		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.00132		0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0432		0.0100	0.00230	mg/L	1		6020A	Total/NA
Molybdenum	0.0605		0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1380		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW8

Lab Sample ID: 310-179739-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.9		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.577		0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	565		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0120		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0955		0.00200	0.000900	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW8 (Continued)

Lab Sample ID: 310-179739-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.22		0.200	0.100	mg/L	1		6020A	Total/NA
Calcium	162		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000503		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000349	J	0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0131		0.0100	0.00230	mg/L	1		6020A	Total/NA
Molybdenum	0.102		0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	948		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW9

Lab Sample ID: 310-179739-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	160		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.562		0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	36.4		5.00	3.55	mg/L	5		9056A	Total/NA
Arsenic	0.00626		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.605		0.00200	0.000900	mg/L	1		6020A	Total/NA
Cadmium	0.000161		0.000100	0.0000390	mg/L	1		6020A	Total/NA
Calcium	165		0.500	0.190	mg/L	1		6020A	Total/NA
Chromium	0.00154	J	0.00500	0.00110	mg/L	1		6020A	Total/NA
Cobalt	0.00166		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.00392		0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0480		0.0100	0.00230	mg/L	1		6020A	Total/NA
Total Dissolved Solids	732		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13

Lab Sample ID: 310-179739-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.24		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.817		0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	794		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0901		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0979		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	2.22		0.200	0.100	mg/L	1		6020A	Total/NA
Cadmium	0.000226		0.000100	0.0000390	mg/L	1		6020A	Total/NA
Calcium	213		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000527		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lithium	0.0232		0.0100	0.00230	mg/L	1		6020A	Total/NA
Molybdenum	1.22		0.00200	0.00110	mg/L	1		6020A	Total/NA
Selenium	0.0357		0.00500	0.00100	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1410		60.0	52.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW15

Lab Sample ID: 310-179739-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.81		5.00	2.00	mg/L	5		9056A	Total/NA
Sulfate	514		20.0	14.2	mg/L	20		9056A	Total/NA
Antimony	0.00122		0.00100	0.000580	mg/L	1		6020A	Total/NA
Arsenic	0.00159	J	0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0701		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	3.60		0.200	0.100	mg/L	1		6020A	Total/NA
Cadmium	0.0000540	J	0.000100	0.0000390	mg/L	1		6020A	Total/NA
Calcium	239		0.500	0.190	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW15 (Continued)

Lab Sample ID: 310-179739-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.00495	J	0.00500	0.00110	mg/L	1		6020A	Total/NA
Lithium	0.00782	J	0.0100	0.00230	mg/L	1		6020A	Total/NA
Molybdenum	0.211		0.00200	0.00110	mg/L	1		6020A	Total/NA
Selenium	0.0560		0.00500	0.00100	mg/L	1		6020A	Total/NA
Total Dissolved Solids	928		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW17

Lab Sample ID: 310-179739-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	30.2		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.274	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	671		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0111		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0330		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	0.757		0.200	0.100	mg/L	1		6020A	Total/NA
Calcium	323		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.0101		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lithium	0.0969		0.0100	0.00230	mg/L	1		6020A	Total/NA
Molybdenum	0.00264		0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1650		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW18

Lab Sample ID: 310-179739-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.55	J	5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.559		0.500	0.230	mg/L	5		9056A	Total/NA
Arsenic	0.00165	J	0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.328		0.00200	0.000900	mg/L	1		6020A	Total/NA
Calcium	111		0.500	0.190	mg/L	1		6020A	Total/NA
Lead	0.000813		0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0262		0.0100	0.00230	mg/L	1		6020A	Total/NA
Total Dissolved Solids	414		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW19

Lab Sample ID: 310-179739-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.83	J	5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.701		0.500	0.230	mg/L	5		9056A	Total/NA
Barium	0.328		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	0.113	J	0.200	0.100	mg/L	1		6020A	Total/NA
Calcium	123		0.500	0.190	mg/L	1		6020A	Total/NA
Lithium	0.0359		0.0100	0.00230	mg/L	1		6020A	Total/NA
Total Dissolved Solids	432		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP1

Lab Sample ID: 310-179739-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21.9		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.447	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	836		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.242		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0998		0.00200	0.000900	mg/L	1		6020A	Total/NA
Boron	1.81		0.200	0.100	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: DUP1 (Continued)

Lab Sample ID: 310-179739-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	328		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00116		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000344	J	0.000500	0.000270	mg/L	1		6020A	Total/NA
Lithium	0.0382		0.0100	0.00230	mg/L	1		6020A	Total/NA
Molybdenum	0.00112	J	0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1680		150	130	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW2

Lab Sample ID: 310-179739-1

Date Collected: 04/14/20 10:10

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.0		5.00	2.00	mg/L			04/21/20 15:19	5
Fluoride	0.427	J	0.500	0.230	mg/L			04/21/20 15:19	5
Sulfate	816		20.0	14.2	mg/L			04/21/20 15:34	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 18:45	1
Arsenic	0.241		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 18:45	1
Barium	0.0997		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 18:45	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 18:45	1
Boron	1.90		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:29	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 18:45	1
Calcium	319		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 18:45	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 18:45	1
Cobalt	0.00113		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 18:45	1
Lead	0.000437	J	0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 18:45	1
Lithium	0.0398		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 18:45	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 18:45	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:29	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 18:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1670		150	130	mg/L			04/16/20 12:43	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW5

Lab Sample ID: 310-179739-2

Date Collected: 04/14/20 16:47

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.7		5.00	2.00	mg/L			04/21/20 16:21	5
Fluoride	0.460	J	0.500	0.230	mg/L			04/21/20 16:21	5
Sulfate	1080		20.0	14.2	mg/L			04/21/20 16:37	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 18:48	1
Arsenic	0.0568		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 18:48	1
Barium	0.0669		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 18:48	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 18:48	1
Boron	0.573		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:32	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 18:48	1
Calcium	439		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 18:48	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 18:48	1
Cobalt	0.000388	J	0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 18:48	1
Lead	0.000542		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 18:48	1
Lithium	0.0718		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 18:48	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 18:48	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:32	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 18:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2120		150	130	mg/L			04/16/20 12:43	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW6

Lab Sample ID: 310-179739-3

Date Collected: 04/14/20 13:20

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	349		5.00	2.00	mg/L			04/21/20 16:52	5
Fluoride	0.487	J	0.500	0.230	mg/L			04/21/20 16:52	5
Sulfate	297		5.00	3.55	mg/L			04/21/20 16:52	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 18:51	1
Arsenic	0.0198		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 18:51	1
Barium	0.197		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 18:51	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 18:51	1
Boron	0.517		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:36	1
Cadmium	0.000209		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 18:51	1
Calcium	347		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 18:51	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 18:51	1
Cobalt	0.00673		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 18:51	1
Lead	0.00132		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 18:51	1
Lithium	0.0432		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 18:51	1
Molybdenum	0.0605		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 18:51	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:36	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 18:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1380		150	130	mg/L			04/16/20 12:43	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW8

Lab Sample ID: 310-179739-4

Date Collected: 04/14/20 14:54

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.9		5.00	2.00	mg/L			04/21/20 17:08	5
Fluoride	0.577		0.500	0.230	mg/L			04/21/20 17:08	5
Sulfate	565		20.0	14.2	mg/L			04/21/20 17:23	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 18:58	1
Arsenic	0.0120		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 18:58	1
Barium	0.0955		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 18:58	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 18:58	1
Boron	2.22		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:42	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 18:58	1
Calcium	162		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 18:58	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 18:58	1
Cobalt	0.000503		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 18:58	1
Lead	0.000349	J	0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 18:58	1
Lithium	0.0131		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 18:58	1
Molybdenum	0.102		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 18:58	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:42	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 18:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	948		30.0	26.0	mg/L			04/16/20 12:43	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW9

Lab Sample ID: 310-179739-5

Date Collected: 04/13/20 18:14

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		5.00	2.00	mg/L			04/22/20 10:33	5
Fluoride	0.562		0.500	0.230	mg/L			04/22/20 10:33	5
Sulfate	36.4		5.00	3.55	mg/L			04/22/20 10:33	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:01	1
Arsenic	0.00626		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:01	1
Barium	0.605		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:01	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:01	1
Boron	<0.100	^	0.200	0.100	mg/L		04/17/20 08:00	04/23/20 19:01	1
Cadmium	0.000161		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:01	1
Calcium	165		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:01	1
Chromium	0.00154	J	0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:01	1
Cobalt	0.00166		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:01	1
Lead	0.00392		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:01	1
Lithium	0.0480		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:01	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:01	1
Selenium	<0.00100	^	0.00500	0.00100	mg/L		04/17/20 08:00	04/23/20 19:01	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	732		30.0	26.0	mg/L			04/16/20 12:43	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW13
 Date Collected: 04/14/20 09:10
 Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-6
 Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.24		5.00	2.00	mg/L			04/22/20 10:48	5
Fluoride	0.817		0.500	0.230	mg/L			04/22/20 10:48	5
Sulfate	794		20.0	14.2	mg/L			04/22/20 11:04	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:05	1
Arsenic	0.0901		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:05	1
Barium	0.0979		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:05	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:05	1
Boron	2.22		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:45	1
Cadmium	0.000226		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:05	1
Calcium	213		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:05	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:05	1
Cobalt	0.000527		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:05	1
Lead	<0.000270		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:05	1
Lithium	0.0232		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:05	1
Molybdenum	1.22		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:05	1
Selenium	0.0357		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:45	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1410		60.0	52.0	mg/L			04/16/20 12:43	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW15

Lab Sample ID: 310-179739-7

Date Collected: 04/14/20 12:22

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.81		5.00	2.00	mg/L			04/21/20 18:26	5
Fluoride	<0.230		0.500	0.230	mg/L			04/21/20 18:26	5
Sulfate	514		20.0	14.2	mg/L			04/21/20 18:41	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00122		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:08	1
Arsenic	0.00159	J	0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:08	1
Barium	0.0701		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:08	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:08	1
Boron	3.60		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:49	1
Cadmium	0.0000540	J	0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:08	1
Calcium	239		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:08	1
Chromium	0.00495	J	0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:08	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:08	1
Lead	<0.000270		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:08	1
Lithium	0.00782	J	0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:08	1
Molybdenum	0.211		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:08	1
Selenium	0.0560		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:49	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 15:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	928		30.0	26.0	mg/L			04/17/20 15:24	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW17

Lab Sample ID: 310-179739-8

Date Collected: 04/14/20 15:51

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.2		5.00	2.00	mg/L			04/21/20 19:28	5
Fluoride	0.274	J	0.500	0.230	mg/L			04/21/20 19:28	5
Sulfate	671		20.0	14.2	mg/L			04/21/20 19:44	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:11	1
Arsenic	0.0111		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:11	1
Barium	0.0330		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:11	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:11	1
Boron	0.757		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 18:52	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:11	1
Calcium	323		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:11	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:11	1
Cobalt	0.0101		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:11	1
Lead	<0.000270		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:11	1
Lithium	0.0969		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:11	1
Molybdenum	0.00264		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:11	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 18:52	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:21	04/17/20 16:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1650		150	130	mg/L			04/17/20 15:24	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW18

Lab Sample ID: 310-179739-9

Date Collected: 04/13/20 14:14

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.55	J	5.00	2.00	mg/L			04/21/20 19:59	5
Fluoride	0.559		0.500	0.230	mg/L			04/21/20 19:59	5
Sulfate	<3.55		5.00	3.55	mg/L			04/21/20 19:59	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:25	1
Arsenic	0.00165	J	0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:25	1
Barium	0.328		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:25	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:25	1
Boron	<0.100	^	0.200	0.100	mg/L		04/17/20 08:00	04/23/20 19:25	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:25	1
Calcium	111		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:25	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:25	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:25	1
Lead	0.000813		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:25	1
Lithium	0.0262		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:25	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:25	1
Selenium	<0.00100	^	0.00500	0.00100	mg/L		04/17/20 08:00	04/23/20 19:25	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:21	04/17/20 16:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	414		30.0	26.0	mg/L			04/17/20 15:24	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW19

Lab Sample ID: 310-179739-10

Date Collected: 04/13/20 15:43

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.83	J	5.00	2.00	mg/L			04/21/20 20:15	5
Fluoride	0.701		0.500	0.230	mg/L			04/21/20 20:15	5
Sulfate	<3.55		5.00	3.55	mg/L			04/21/20 20:15	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:28	1
Arsenic	<0.000880		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:28	1
Barium	0.328		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:28	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:28	1
Boron	0.113	J	0.200	0.100	mg/L		04/17/20 08:00	04/24/20 19:05	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:28	1
Calcium	123		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:28	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:28	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:28	1
Lead	<0.000270		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:28	1
Lithium	0.0359		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:28	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:28	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 19:05	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:28	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:21	04/17/20 17:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	432		30.0	26.0	mg/L			04/17/20 15:24	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: DUP1

Lab Sample ID: 310-179739-11

Date Collected: 04/14/20 00:00

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.9		5.00	2.00	mg/L			04/21/20 20:30	5
Fluoride	0.447	J	0.500	0.230	mg/L			04/21/20 20:30	5
Sulfate	836		20.0	14.2	mg/L			04/22/20 11:19	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 19:31	1
Arsenic	0.242		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 19:31	1
Barium	0.0998		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 19:31	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 19:31	1
Boron	1.81		0.200	0.100	mg/L		04/17/20 08:00	04/24/20 19:08	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 19:31	1
Calcium	328		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 19:31	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 19:31	1
Cobalt	0.00116		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 19:31	1
Lead	0.000344	J	0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 19:31	1
Lithium	0.0382		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 19:31	1
Molybdenum	0.00112	J	0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 19:31	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/24/20 19:08	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 19:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:21	04/17/20 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1680		150	130	mg/L			04/17/20 15:24	1

Definitions/Glossary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-276645/3
Matrix: Water
Analysis Batch: 276645

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.400		1.00	0.400	mg/L			04/21/20 13:14	1
Fluoride	<0.0460		0.100	0.0460	mg/L			04/21/20 13:14	1
Sulfate	<0.710		1.00	0.710	mg/L			04/21/20 13:14	1

Lab Sample ID: LCS 310-276645/4
Matrix: Water
Analysis Batch: 276645

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.867		mg/L		99	90 - 110
Fluoride	2.00	2.026		mg/L		101	90 - 110
Sulfate	10.0	10.35		mg/L		103	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-276016/1-A
Matrix: Water
Analysis Batch: 276721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276016

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000580		0.00100	0.000580	mg/L		04/17/20 08:00	04/23/20 17:42	1
Arsenic	<0.000880		0.00200	0.000880	mg/L		04/17/20 08:00	04/23/20 17:42	1
Barium	<0.000900		0.00200	0.000900	mg/L		04/17/20 08:00	04/23/20 17:42	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		04/17/20 08:00	04/23/20 17:42	1
Cadmium	<0.0000390		0.000100	0.0000390	mg/L		04/17/20 08:00	04/23/20 17:42	1
Calcium	<0.190		0.500	0.190	mg/L		04/17/20 08:00	04/23/20 17:42	1
Chromium	<0.00110		0.00500	0.00110	mg/L		04/17/20 08:00	04/23/20 17:42	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		04/17/20 08:00	04/23/20 17:42	1
Lead	<0.000270		0.000500	0.000270	mg/L		04/17/20 08:00	04/23/20 17:42	1
Lithium	<0.00230		0.0100	0.00230	mg/L		04/17/20 08:00	04/23/20 17:42	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		04/17/20 08:00	04/23/20 17:42	1
Thallium	<0.000260		0.00100	0.000260	mg/L		04/17/20 08:00	04/23/20 17:42	1

Lab Sample ID: MB 310-276016/1-A
Matrix: Water
Analysis Batch: 276998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 276016

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.200	0.100	mg/L		04/17/20 08:00	04/27/20 15:00	1
Selenium	<0.00100		0.00500	0.00100	mg/L		04/17/20 08:00	04/27/20 15:00	1

Lab Sample ID: LCS 310-276016/2-A
Matrix: Water
Analysis Batch: 276721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.0400	0.03287		mg/L		82	80 - 120
Arsenic	0.0800	0.08265		mg/L		103	80 - 120
Barium	0.0800	0.08655		mg/L		108	80 - 120
Beryllium	0.0400	0.04366		mg/L		109	80 - 120

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

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

Lab Sample ID: LCS 310-276016/2-A
Matrix: Water
Analysis Batch: 276721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.0400	0.04453		mg/L		111	80 - 120
Calcium	4.00	4.505		mg/L		113	80 - 120
Chromium	0.0800	0.08535		mg/L		107	80 - 120
Cobalt	0.0400	0.04404		mg/L		110	80 - 120
Lead	0.0400	0.04578		mg/L		114	80 - 120
Lithium	0.200	0.1997		mg/L		100	80 - 120
Molybdenum	0.0800	0.06823		mg/L		85	80 - 120
Thallium	0.0320	0.03443		mg/L		108	80 - 120

Lab Sample ID: LCS 310-276016/2-A
Matrix: Water
Analysis Batch: 276834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 276016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.76	1.833		mg/L		104	80 - 120
Selenium	0.0800	0.08437		mg/L		105	80 - 120

Lab Sample ID: 310-179739-3 DU
Matrix: Water
Analysis Batch: 276721

Client Sample ID: MW6
Prep Type: Total/NA
Prep Batch: 276016

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.000580		<0.000580		mg/L		NC	20
Arsenic	0.0198		0.01977		mg/L		0	20
Barium	0.197		0.2022		mg/L		2	20
Beryllium	<0.000270		<0.000270		mg/L		NC	20
Cadmium	0.000209		0.0002210		mg/L		6	20
Calcium	347		347.7		mg/L		0.1	20
Chromium	<0.00110		<0.00110		mg/L		NC	20
Cobalt	0.00673		0.006928		mg/L		3	20
Lead	0.00132		0.002065	F3	mg/L		44	20
Lithium	0.0432		0.04435		mg/L		3	20
Molybdenum	0.0605		0.06127		mg/L		1	20
Thallium	<0.000260		<0.000260		mg/L		NC	20

Lab Sample ID: 310-179739-3 DU
Matrix: Water
Analysis Batch: 276834

Client Sample ID: MW6
Prep Type: Total/NA
Prep Batch: 276016

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.000580		<0.000580		mg/L		NC	20
Boron	0.517		0.5309		mg/L		3	20
Selenium	<0.00100		<0.00100		mg/L		NC	20

QC Sample Results

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-275976/1-A
Matrix: Water
Analysis Batch: 276156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:20	04/17/20 14:44	1

Lab Sample ID: LCS 310-275976/2-A
Matrix: Water
Analysis Batch: 276156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275976
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00167	0.001874		mg/L		112	80 - 120

Lab Sample ID: MB 310-275978/1-A
Matrix: Water
Analysis Batch: 276156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		04/16/20 13:21	04/17/20 16:48	1

Lab Sample ID: LCS 310-275978/2-A
Matrix: Water
Analysis Batch: 276156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275978
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00167	0.001920		mg/L		115	80 - 120

Lab Sample ID: 310-179739-8 MS
Matrix: Water
Analysis Batch: 276156

Client Sample ID: MW17
Prep Type: Total/NA
Prep Batch: 275978
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.000100		0.00167	0.001494		mg/L		90	80 - 120

Lab Sample ID: 310-179739-8 MSD
Matrix: Water
Analysis Batch: 276156

Client Sample ID: MW17
Prep Type: Total/NA
Prep Batch: 275978
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	<0.000100		0.00167	0.001380		mg/L		83	80 - 120	8	20

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

Lab Sample ID: MB 310-275971/1
Matrix: Water
Analysis Batch: 275971

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	<26.0		30.0	26.0	mg/L			04/16/20 12:43	1

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

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

Lab Sample ID: LCS 310-275971/2
Matrix: Water
Analysis Batch: 275971

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	1000	966.0		mg/L		97	90 - 110

Lab Sample ID: 310-179739-1 DU
Matrix: Water
Analysis Batch: 275971

Client Sample ID: MW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1670		1650		mg/L		1	24

Lab Sample ID: MB 310-276131/1
Matrix: Water
Analysis Batch: 276131

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	<26.0		30.0	26.0	mg/L			04/17/20 15:24	1

Lab Sample ID: LCS 310-276131/2
Matrix: Water
Analysis Batch: 276131

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	1000	974.0		mg/L		97	90 - 110

Lab Sample ID: 310-179739-7 DU
Matrix: Water
Analysis Batch: 276131

Client Sample ID: MW15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	928		916.0		mg/L		1	24

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

HPLC/IC

Analysis Batch: 276645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	9056A	
310-179739-1	MW2	Total/NA	Water	9056A	
310-179739-2	MW5	Total/NA	Water	9056A	
310-179739-2	MW5	Total/NA	Water	9056A	
310-179739-3	MW6	Total/NA	Water	9056A	
310-179739-4	MW8	Total/NA	Water	9056A	
310-179739-4	MW8	Total/NA	Water	9056A	
310-179739-5	MW9	Total/NA	Water	9056A	
310-179739-6	MW13	Total/NA	Water	9056A	
310-179739-6	MW13	Total/NA	Water	9056A	
310-179739-7	MW15	Total/NA	Water	9056A	
310-179739-7	MW15	Total/NA	Water	9056A	
310-179739-8	MW17	Total/NA	Water	9056A	
310-179739-8	MW17	Total/NA	Water	9056A	
310-179739-9	MW18	Total/NA	Water	9056A	
310-179739-10	MW19	Total/NA	Water	9056A	
310-179739-11	DUP1	Total/NA	Water	9056A	
310-179739-11	DUP1	Total/NA	Water	9056A	
MB 310-276645/3	Method Blank	Total/NA	Water	9056A	
LCS 310-276645/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 275976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	7470A	
310-179739-2	MW5	Total/NA	Water	7470A	
310-179739-3	MW6	Total/NA	Water	7470A	
310-179739-4	MW8	Total/NA	Water	7470A	
310-179739-5	MW9	Total/NA	Water	7470A	
310-179739-6	MW13	Total/NA	Water	7470A	
310-179739-7	MW15	Total/NA	Water	7470A	
MB 310-275976/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-275976/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 275978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-8	MW17	Total/NA	Water	7470A	
310-179739-9	MW18	Total/NA	Water	7470A	
310-179739-10	MW19	Total/NA	Water	7470A	
310-179739-11	DUP1	Total/NA	Water	7470A	
MB 310-275978/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-275978/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-179739-8 MS	MW17	Total/NA	Water	7470A	
310-179739-8 MSD	MW17	Total/NA	Water	7470A	

Prep Batch: 276016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	3010A	
310-179739-2	MW5	Total/NA	Water	3010A	
310-179739-3	MW6	Total/NA	Water	3010A	

QC Association Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Metals (Continued)

Prep Batch: 276016 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-4	MW8	Total/NA	Water	3010A	
310-179739-5	MW9	Total/NA	Water	3010A	
310-179739-6	MW13	Total/NA	Water	3010A	
310-179739-7	MW15	Total/NA	Water	3010A	
310-179739-8	MW17	Total/NA	Water	3010A	
310-179739-9	MW18	Total/NA	Water	3010A	
310-179739-10	MW19	Total/NA	Water	3010A	
310-179739-11	DUP1	Total/NA	Water	3010A	
MB 310-276016/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-276016/2-A	Lab Control Sample	Total/NA	Water	3010A	
310-179739-3 DU	MW6	Total/NA	Water	3010A	

Analysis Batch: 276156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	7470A	275976
310-179739-2	MW5	Total/NA	Water	7470A	275976
310-179739-3	MW6	Total/NA	Water	7470A	275976
310-179739-4	MW8	Total/NA	Water	7470A	275976
310-179739-5	MW9	Total/NA	Water	7470A	275976
310-179739-6	MW13	Total/NA	Water	7470A	275976
310-179739-7	MW15	Total/NA	Water	7470A	275976
310-179739-8	MW17	Total/NA	Water	7470A	275978
310-179739-9	MW18	Total/NA	Water	7470A	275978
310-179739-10	MW19	Total/NA	Water	7470A	275978
310-179739-11	DUP1	Total/NA	Water	7470A	275978
MB 310-275976/1-A	Method Blank	Total/NA	Water	7470A	275976
MB 310-275978/1-A	Method Blank	Total/NA	Water	7470A	275978
LCS 310-275976/2-A	Lab Control Sample	Total/NA	Water	7470A	275976
LCS 310-275978/2-A	Lab Control Sample	Total/NA	Water	7470A	275978
310-179739-8 MS	MW17	Total/NA	Water	7470A	275978
310-179739-8 MSD	MW17	Total/NA	Water	7470A	275978

Analysis Batch: 276721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	6020A	276016
310-179739-2	MW5	Total/NA	Water	6020A	276016
310-179739-3	MW6	Total/NA	Water	6020A	276016
310-179739-4	MW8	Total/NA	Water	6020A	276016
310-179739-5	MW9	Total/NA	Water	6020A	276016
310-179739-6	MW13	Total/NA	Water	6020A	276016
310-179739-7	MW15	Total/NA	Water	6020A	276016
310-179739-8	MW17	Total/NA	Water	6020A	276016
310-179739-9	MW18	Total/NA	Water	6020A	276016
310-179739-10	MW19	Total/NA	Water	6020A	276016
310-179739-11	DUP1	Total/NA	Water	6020A	276016
MB 310-276016/1-A	Method Blank	Total/NA	Water	6020A	276016
LCS 310-276016/2-A	Lab Control Sample	Total/NA	Water	6020A	276016
310-179739-3 DU	MW6	Total/NA	Water	6020A	276016

QC Association Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Metals

Analysis Batch: 276834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	6020A	276016
310-179739-2	MW5	Total/NA	Water	6020A	276016
310-179739-3	MW6	Total/NA	Water	6020A	276016
310-179739-4	MW8	Total/NA	Water	6020A	276016
310-179739-6	MW13	Total/NA	Water	6020A	276016
310-179739-7	MW15	Total/NA	Water	6020A	276016
310-179739-8	MW17	Total/NA	Water	6020A	276016
310-179739-10	MW19	Total/NA	Water	6020A	276016
310-179739-11	DUP1	Total/NA	Water	6020A	276016
LCS 310-276016/2-A	Lab Control Sample	Total/NA	Water	6020A	276016
310-179739-3 DU	MW6	Total/NA	Water	6020A	276016

Analysis Batch: 276998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-276016/1-A	Method Blank	Total/NA	Water	6020A	276016

General Chemistry

Analysis Batch: 275971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	SM 2540C	
310-179739-2	MW5	Total/NA	Water	SM 2540C	
310-179739-3	MW6	Total/NA	Water	SM 2540C	
310-179739-4	MW8	Total/NA	Water	SM 2540C	
310-179739-5	MW9	Total/NA	Water	SM 2540C	
310-179739-6	MW13	Total/NA	Water	SM 2540C	
MB 310-275971/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-275971/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-179739-1 DU	MW2	Total/NA	Water	SM 2540C	

Analysis Batch: 276131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-7	MW15	Total/NA	Water	SM 2540C	
310-179739-8	MW17	Total/NA	Water	SM 2540C	
310-179739-9	MW18	Total/NA	Water	SM 2540C	
310-179739-10	MW19	Total/NA	Water	SM 2540C	
310-179739-11	DUP1	Total/NA	Water	SM 2540C	
MB 310-276131/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-276131/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-179739-7 DU	MW15	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW2

Date Collected: 04/14/20 10:10

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 15:19	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/21/20 15:34	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 18:45	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:29	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:29	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	275971	04/16/20 12:43	SAS	TAL CF

Client Sample ID: MW5

Date Collected: 04/14/20 16:47

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 16:21	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/21/20 16:37	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 18:48	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:32	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:31	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	275971	04/16/20 12:43	SAS	TAL CF

Client Sample ID: MW6

Date Collected: 04/14/20 13:20

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 16:52	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 18:51	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:36	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:33	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	275971	04/16/20 12:43	SAS	TAL CF

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW8

Date Collected: 04/14/20 14:54

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 17:08	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/21/20 17:23	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 18:58	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:42	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:36	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	275971	04/16/20 12:43	SAS	TAL CF

Client Sample ID: MW9

Date Collected: 04/13/20 18:14

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/22/20 10:33	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:01	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:38	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	275971	04/16/20 12:43	SAS	TAL CF

Client Sample ID: MW13

Date Collected: 04/14/20 09:10

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/22/20 10:48	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/22/20 11:04	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:05	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:45	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:40	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	275971	04/16/20 12:43	SAS	TAL CF

Client Sample ID: MW15

Date Collected: 04/14/20 12:22

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 18:26	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/21/20 18:41	ACJ	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW15

Date Collected: 04/14/20 12:22

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:08	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:49	SAD	TAL CF
Total/NA	Prep	7470A			275976	04/16/20 13:20	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 15:42	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	276131	04/17/20 15:24	SAS	TAL CF

Client Sample ID: MW17

Date Collected: 04/14/20 15:51

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 19:28	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/21/20 19:44	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:11	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 18:52	SAD	TAL CF
Total/NA	Prep	7470A			275978	04/16/20 13:21	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 16:52	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	276131	04/17/20 15:24	SAS	TAL CF

Client Sample ID: MW18

Date Collected: 04/13/20 14:14

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 19:59	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:25	SAD	TAL CF
Total/NA	Prep	7470A			275978	04/16/20 13:21	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 16:59	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	276131	04/17/20 15:24	SAS	TAL CF

Client Sample ID: MW19

Date Collected: 04/13/20 15:43

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 20:15	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:28	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 19:05	SAD	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Client Sample ID: MW19

Date Collected: 04/13/20 15:43

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			275978	04/16/20 13:21	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 17:05	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	276131	04/17/20 15:24	SAS	TAL CF

Client Sample ID: DUP1

Date Collected: 04/14/20 00:00

Date Received: 04/16/20 09:30

Lab Sample ID: 310-179739-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	276645	04/21/20 20:30	ACJ	TAL CF
Total/NA	Analysis	9056A		20	276645	04/22/20 11:19	ACJ	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276721	04/23/20 19:31	SAD	TAL CF
Total/NA	Prep	3010A			276016	04/17/20 08:00	HED	TAL CF
Total/NA	Analysis	6020A		1	276834	04/24/20 19:08	SAD	TAL CF
Total/NA	Prep	7470A			275978	04/16/20 13:21	HIS	TAL CF
Total/NA	Analysis	7470A		1	276156	04/17/20 17:07	HIS	TAL CF
Total/NA	Analysis	SM 2540C		1	276131	04/17/20 15:24	SAS	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	101044	11-01-20
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-20
Georgia	State	IA100001 (OR)	09-29-20
Illinois	NELAP	200024	11-29-20
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-21
Minnesota	NELAP	019-999-319	12-31-20
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-30-20
Oregon	NELAP	IA100001	09-29-20
USDA	US Federal Programs	P330-19-00003	01-02-22

Method Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

Protocol References:

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:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



310-179739 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: <small>CITY</small> <u>Omaha</u> <small>STATE</small> <u>NE</u>	Project: <u>North Omaha Steponca R</u>	
Receipt Information		
Date/Time Received: <small>DATE</small> <u>4/14/20</u> <small>TIME</small> <u>0930</u>	Received By: <u>a</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0.0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>0.4</u>	Corrected Temp (°C): <u>0.4</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW 5 MW 8 MW 17</u>		

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Environment Testing
TestAmerica

Place COC scanning label
here 268

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station CR</u>	
Receipt Information		
Date/Time Received: DATE <u>4/16/20</u> TIME <u>0930</u>	Received By: <u>a</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0.0</u>	
* Temp Blank Temperature -- If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>0.8</u>	Corrected Temp (°C): <u>0.8</u>	
Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW 151, MW 13, MW 6. Dup 1</u>		



Environment Testing
TestAmerica

Place COC scanning label
here 268

Cooler/Sample Receipt and Temperature Log Form

Client Information	
Client:	OPPD
City/State: CITY	Omaha STATE NE Project: North Omaha Station CR
Receipt Information	
Date/Time Received: DATE	4/16/20 TIME 0930 Received By: a
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other:	
Condition of Cooler/Containers	
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID:
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler # 3 of 3
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓
Temperature Record	
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: <input type="checkbox"/> NONE	
Thermometer ID:	N Correction Factor (°C): 0.0
Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature	
Uncorrected Temp (°C):	0.8 Corrected Temp (°C): 0.8
Sample Container Temperature	
Container(s) used:	CONTAINER 1 CONTAINER 2
Uncorrected Temp (°C):	
Corrected Temp (°C):	
Exceptions Noted	
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No	
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No	
NOTE: If yes, contact PM before proceeding. If no, proceed with login	
Additional Comments	
MW 2 MW 9 MW 19 MW 18	

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

Chain of Custody Record

Client Information Client Contact: Kyle K. Uhing Phone: (531) 226-2515 Company: Omaha Public Power District		Lab P.M.: Hayes, Shawn M E-Mail: shawn.hayes@testamericainc.com		Carrier Tracking No(s): COC No: Page: Job #:	
Address: 444 South 16th Street Mall 9E/EP1 City: Omaha State/Zip: NE, 68102-2247 Phone: (531) 226-2515 Email: kkuhing@oppd.com		Due Date Requested: TAT Requested (days): PO #: WO #: TestAmerica Project #: 31007560 SSOW#:		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 Other: 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 Z - other (specify)	
Sample Identification		Perform MS/MSD (Yes or No)		Total Number of Containers	
Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (Hexane, MeOH, Ozone, etc.) Preservation Code:		9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228 2540C TDS, 9056A Chloride, Fluoride, Sulfate		Special Instructions/Note:	
MW2	4/14/2020 10:10	G	W	X	4
MW5	4/14/2020 12:47	G	W	X	4
MW6	4/14/2020 13:20	G	W	X	4
MW8	4/14/2020 14:34	G	W	X	4
MW9	4/13/2020 18:14	G	W	X	4
MW13	4/14/2020 9:10	G	W	X	4
MW15	4/14/2020 12:22	G	W	X	4
MW17	4/14/2020 15:51	G	W	X	4
MW18	4/13/2020 14:14	G	W	X	4
MW19	4/13/2020 16:43	G	W	X	4
DUP1	4/14/2020	G	W	X	4
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Field Filtered Sample (Yes or No)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		Method of Shipment:	
Empty Kit Relinquished by: Kyle K. Uhing		Date: 4/15/2020 14:20		Company: OPPD	
Relinquished by:		Date/Time: 4/15/2020 17:00		Company: EuraFas	
Relinquished by:		Date/Time:		Company: EFA	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container		Preservative	Lot #
			pH	Temp	Added (mls)	
MW2	310-179739-A-1	Plastic 250ml - with Nitric Acid	<2			
MW2	310-179739-C-1	Plastic 1 liter - Nitric Acid	<2			
MW2	310-179739-D-1	Plastic 1 liter - Nitric Acid	<2			
MW5	310-179739-A-2	Plastic 250ml - with Nitric Acid	<2			
MW5	310-179739-C-2	Plastic 1 liter - Nitric Acid	<2			
MW5	310-179739-D-2	Plastic 1 liter - Nitric Acid	<2			
MW6	310-179739-A-3	Plastic 250ml - with Nitric Acid	<2			
MW6	310-179739-C-3	Plastic 1 liter - Nitric Acid	<2			
MW6	310-179739-D-3	Plastic 1 liter - Nitric Acid	<2			
MW8	310-179739-A-4	Plastic 250ml - with Nitric Acid	<2			
MW8	310-179739-C-4	Plastic 1 liter - Nitric Acid	<2			
MW8	310-179739-D-4	Plastic 1 liter - Nitric Acid	<2			
MW9	310-179739-A-5	Plastic 250ml - with Nitric Acid	<2			
MW9	310-179739-C-5	Plastic 1 liter - Nitric Acid	<2			
MW9	310-179739-D-5	Plastic 1 liter - Nitric Acid	<2			
MW13	310-179739-A-6	Plastic 250ml - with Nitric Acid	<2			
MW13	310-179739-C-6	Plastic 1 liter - Nitric Acid	<2			
MW13	310-179739-D-6	Plastic 1 liter - Nitric Acid	<2			
MW15	310-179739-A-7	Plastic 250ml - with Nitric Acid	<2			
MW15	310-179739-C-7	Plastic 1 liter - Nitric Acid	<2			
MW15	310-179739-D-7	Plastic 1 liter - Nitric Acid	<2			
MW17	310-179739-A-8	Plastic 250ml - with Nitric Acid	<2			
MW17	310-179739-C-8	Plastic 1 liter - Nitric Acid	<2			
MW17	310-179739-D-8	Plastic 1 liter - Nitric Acid	<2			
MW18	310-179739-A-9	Plastic 250ml - with Nitric Acid	<2			
MW18	310-179739-C-9	Plastic 1 liter - Nitric Acid	<2			
MW18	310-179739-D-9	Plastic 1 liter - Nitric Acid	<2			
MW19	310-179739-A-10	Plastic 250ml - with Nitric Acid	<2			
MW19	310-179739-C-10	Plastic 1 liter - Nitric Acid	<2			
MW19	310-179739-D-10	Plastic 1 liter - Nitric Acid	<2			
DUP1	310-179739-A-11	Plastic 250ml - with Nitric Acid	<2			
DUP1	310-179739-C-11	Plastic 1 liter - Nitric Acid	<2			
DUP1	310-179739-D-11	Plastic 1 liter - Nitric Acid	<2			



Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-179739-1

Login Number: 179739

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Bovy, Lorrainna L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-179739-2
Client Project/Site: North Omaha Station CCR

For:
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Attn: Kyle Uhing



Authorized for release by:
5/18/2020 12:15:45 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
shawn.hayes@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Job ID: 310-179739-2

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-179739-2

Receipt

The samples were received on 4/16/2020 9:30 AM; the samples arrived in good condition, properly preserved, and where required, on ice. The temperatures of the 3 coolers at receipt time were 0.4°C, 0.8°C and 0.8°C

Department Gas Flow Proportional Counter

Method 9315_Ra226: Radium 226 Prep Batch 160-468909:

The following sample was reduced due to brown discoloration: MW9 (310-179739-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 9320_Ra228: Radium 228 Prep Batch 160-468910:

The following sample was reduced due to brown discoloration: MW9 (310-179739-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision

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

Department Rad

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



Sample Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-179739-1	MW2	Water	04/14/20 10:10	04/16/20 09:30	
310-179739-2	MW5	Water	04/14/20 16:47	04/16/20 09:30	
310-179739-3	MW6	Water	04/14/20 13:20	04/16/20 09:30	
310-179739-4	MW8	Water	04/14/20 14:54	04/16/20 09:30	
310-179739-5	MW9	Water	04/13/20 18:14	04/16/20 09:30	
310-179739-6	MW13	Water	04/14/20 09:10	04/16/20 09:30	
310-179739-7	MW15	Water	04/14/20 12:22	04/16/20 09:30	
310-179739-8	MW17	Water	04/14/20 15:51	04/16/20 09:30	
310-179739-9	MW18	Water	04/13/20 14:14	04/16/20 09:30	
310-179739-10	MW19	Water	04/13/20 15:43	04/16/20 09:30	
310-179739-11	DUP1	Water	04/14/20 00:00	04/16/20 09:30	

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW2

Lab Sample ID: 310-179739-1

Date Collected: 04/14/20 10:10

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.168		0.0758	0.0773	1.00	0.0776	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.3		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.287	U	0.265	0.266	1.00	0.427	pCi/L	04/26/20 13:18	05/06/20 17:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.3		40 - 110					04/26/20 13:18	05/06/20 17:50	1
Y Carrier	85.6		40 - 110					04/26/20 13:18	05/06/20 17:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.455		0.276	0.277	5.00	0.427	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW5

Lab Sample ID: 310-179739-2

Date Collected: 04/14/20 16:47

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.103	U	0.0870	0.0875	1.00	0.133	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0519	U	0.238	0.238	1.00	0.435	pCi/L	04/26/20 13:18	05/06/20 17:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		40 - 110					04/26/20 13:18	05/06/20 17:49	1
Y Carrier	85.6		40 - 110					04/26/20 13:18	05/06/20 17:49	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0513	U	0.253	0.254	5.00	0.435	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW6

Lab Sample ID: 310-179739-3

Date Collected: 04/14/20 13:20

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.210		0.0925	0.0944	1.00	0.0990	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.1		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.251	U	0.298	0.299	1.00	0.492	pCi/L	04/26/20 13:18	05/06/20 17:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.1		40 - 110					04/26/20 13:18	05/06/20 17:50	1
Y Carrier	90.5		40 - 110					04/26/20 13:18	05/06/20 17:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.462	U	0.312	0.314	5.00	0.492	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW8

Lab Sample ID: 310-179739-4

Date Collected: 04/14/20 14:54

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0553	U	0.0662	0.0664	1.00	0.108	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.160	U	0.241	0.241	1.00	0.404	pCi/L	04/26/20 13:18	05/06/20 17:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					04/26/20 13:18	05/06/20 17:50	1
Y Carrier	86.4		40 - 110					04/26/20 13:18	05/06/20 17:50	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.215	U	0.250	0.250	5.00	0.404	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW9

Lab Sample ID: 310-179739-5

Date Collected: 04/13/20 18:14

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.662		0.231	0.239	1.00	0.234	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.1		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.499	U	0.530	0.532	1.00	0.865	pCi/L	04/26/20 13:18	05/06/20 17:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.1		40 - 110					04/26/20 13:18	05/06/20 17:51	1
Y Carrier	86.7		40 - 110					04/26/20 13:18	05/06/20 17:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.16		0.578	0.583	5.00	0.865	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW13

Lab Sample ID: 310-179739-6

Date Collected: 04/14/20 09:10

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0954	U	0.0702	0.0707	1.00	0.0991	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.136	U	0.247	0.247	1.00	0.419	pCi/L	04/26/20 13:18	05/06/20 17:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		40 - 110					04/26/20 13:18	05/06/20 17:51	1
Y Carrier	86.7		40 - 110					04/26/20 13:18	05/06/20 17:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.231	U	0.257	0.257	5.00	0.419	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW15

Lab Sample ID: 310-179739-7

Date Collected: 04/14/20 12:22

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0220	U	0.0639	0.0639	1.00	0.118	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.153	U	0.247	0.248	1.00	0.417	pCi/L	04/26/20 13:18	05/06/20 17:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					04/26/20 13:18	05/06/20 17:51	1
Y Carrier	87.1		40 - 110					04/26/20 13:18	05/06/20 17:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.175	U	0.255	0.256	5.00	0.417	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW17

Lab Sample ID: 310-179739-8

Date Collected: 04/14/20 15:51

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.0781	0.0787	1.00	0.110	pCi/L	04/26/20 12:22	05/18/20 06:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		40 - 110					04/26/20 12:22	05/18/20 06:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.358	U	0.271	0.273	1.00	0.426	pCi/L	04/26/20 13:18	05/06/20 17:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		40 - 110					04/26/20 13:18	05/06/20 17:51	1
Y Carrier	89.0		40 - 110					04/26/20 13:18	05/06/20 17:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.467		0.282	0.284	5.00	0.426	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW18

Lab Sample ID: 310-179739-9

Date Collected: 04/13/20 14:14

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.240		0.118	0.120	1.00	0.143	pCi/L	04/26/20 12:22	05/18/20 08:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		40 - 110					04/26/20 12:22	05/18/20 08:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00618	U	0.323	0.323	1.00	0.576	pCi/L	04/26/20 13:18	05/06/20 17:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		40 - 110					04/26/20 13:18	05/06/20 17:51	1
Y Carrier	86.7		40 - 110					04/26/20 13:18	05/06/20 17:51	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.246	U	0.344	0.345	5.00	0.576	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW19

Lab Sample ID: 310-179739-10

Date Collected: 04/13/20 15:43

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.310		0.125	0.128	1.00	0.135	pCi/L	04/26/20 12:22	05/18/20 08:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					04/26/20 12:22	05/18/20 08:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.313	U	0.322	0.323	1.00	0.525	pCi/L	04/26/20 13:18	05/06/20 17:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					04/26/20 13:18	05/06/20 17:52	1
Y Carrier	88.6		40 - 110					04/26/20 13:18	05/06/20 17:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.623		0.345	0.347	5.00	0.525	pCi/L		05/18/20 11:17	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: DUP1

Lab Sample ID: 310-179739-11

Date Collected: 04/14/20 00:00

Matrix: Water

Date Received: 04/16/20 09:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0671	U	0.0670	0.0672	1.00	0.105	pCi/L	04/26/20 12:22	05/18/20 08:44	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					04/26/20 12:22	05/18/20 08:44	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.382		0.244	0.246	1.00	0.373	pCi/L	04/26/20 13:18	05/06/20 17:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					04/26/20 13:18	05/06/20 17:52	1
Y Carrier	87.1		40 - 110					04/26/20 13:18	05/06/20 17:52	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.449		0.253	0.255	5.00	0.373	pCi/L		05/18/20 11:17	1

Definitions/Glossary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-468909/23-A
Matrix: Water
Analysis Batch: 470653

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468909

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01038	U	0.0462	0.0462	1.00	0.102	pCi/L	04/26/20 12:22	05/18/20 08:45	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	98.2		40 - 110		04/26/20 12:22	05/18/20 08:45	1			

Lab Sample ID: LCS 160-468909/1-A
Matrix: Water
Analysis Batch: 470653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 468909

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.08		1.05	1.00	0.0763	pCi/L	89	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	91.5		40 - 110						

Lab Sample ID: LCSD 160-468909/2-A
Matrix: Water
Analysis Batch: 470653

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 468909

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	9.511		0.993	1.00	0.0817	pCi/L	84	75 - 125	0.28	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	96.6		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-468910/23-A
Matrix: Water
Analysis Batch: 469688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 468910

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1348	U	0.194	0.194	1.00	0.325	pCi/L	04/26/20 13:18	05/06/20 17:55	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	98.2		40 - 110		04/26/20 13:18	05/06/20 17:55	1			
Y Carrier	90.5		40 - 110		04/26/20 13:18	05/06/20 17:55	1			

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-468910/1-A

Matrix: Water

Analysis Batch: 469763

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 468910

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	8.87	8.777		1.04	1.00	0.357	pCi/L	99	75 - 125	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	91.5		40 - 110							
Y Carrier	89.0		40 - 110							

Lab Sample ID: LCSD 160-468910/2-A

Matrix: Water

Analysis Batch: 469763

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 468910

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	8.87	8.139		0.967	1.00	0.339	pCi/L	92	75 - 125	0.32	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	96.6		40 - 110								
Y Carrier	88.6		40 - 110								

QC Association Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Rad

Prep Batch: 468909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	PrecSep-21	
310-179739-2	MW5	Total/NA	Water	PrecSep-21	
310-179739-3	MW6	Total/NA	Water	PrecSep-21	
310-179739-4	MW8	Total/NA	Water	PrecSep-21	
310-179739-5	MW9	Total/NA	Water	PrecSep-21	
310-179739-6	MW13	Total/NA	Water	PrecSep-21	
310-179739-7	MW15	Total/NA	Water	PrecSep-21	
310-179739-8	MW17	Total/NA	Water	PrecSep-21	
310-179739-9	MW18	Total/NA	Water	PrecSep-21	
310-179739-10	MW19	Total/NA	Water	PrecSep-21	
310-179739-11	DUP1	Total/NA	Water	PrecSep-21	
MB 160-468909/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-468909/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-468909/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 468910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-179739-1	MW2	Total/NA	Water	PrecSep_0	
310-179739-2	MW5	Total/NA	Water	PrecSep_0	
310-179739-3	MW6	Total/NA	Water	PrecSep_0	
310-179739-4	MW8	Total/NA	Water	PrecSep_0	
310-179739-5	MW9	Total/NA	Water	PrecSep_0	
310-179739-6	MW13	Total/NA	Water	PrecSep_0	
310-179739-7	MW15	Total/NA	Water	PrecSep_0	
310-179739-8	MW17	Total/NA	Water	PrecSep_0	
310-179739-9	MW18	Total/NA	Water	PrecSep_0	
310-179739-10	MW19	Total/NA	Water	PrecSep_0	
310-179739-11	DUP1	Total/NA	Water	PrecSep_0	
MB 160-468910/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-468910/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-468910/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW2

Lab Sample ID: 310-179739-1

Date Collected: 04/14/20 10:10

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:50	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW5

Lab Sample ID: 310-179739-2

Date Collected: 04/14/20 16:47

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:49	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW6

Lab Sample ID: 310-179739-3

Date Collected: 04/14/20 13:20

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:50	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW8

Lab Sample ID: 310-179739-4

Date Collected: 04/14/20 14:54

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:50	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW9

Lab Sample ID: 310-179739-5

Date Collected: 04/13/20 18:14

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:51	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW13

Lab Sample ID: 310-179739-6

Date Collected: 04/14/20 09:10

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:51	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW15

Lab Sample ID: 310-179739-7

Date Collected: 04/14/20 12:22

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:51	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW17

Lab Sample ID: 310-179739-8

Date Collected: 04/14/20 15:51

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 06:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:51	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Client Sample ID: MW18

Lab Sample ID: 310-179739-9

Date Collected: 04/13/20 14:14

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 08:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:51	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: MW19

Lab Sample ID: 310-179739-10

Date Collected: 04/13/20 15:43

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 08:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:52	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Client Sample ID: DUP1

Lab Sample ID: 310-179739-11

Date Collected: 04/14/20 00:00

Matrix: Water

Date Received: 04/16/20 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			468909	04/26/20 12:22	MNH	TAL SL
Total/NA	Analysis	9315		1	470653	05/18/20 08:44	KLS	TAL SL
Total/NA	Prep	PrecSep_0			468910	04/26/20 13:18	MNH	TAL SL
Total/NA	Analysis	9320		1	469754	05/06/20 17:52	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	470668	05/18/20 11:17	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	101044	11-01-20
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-20
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-20
Georgia	State	IA100001 (OR)	09-29-20
Illinois	NELAP	200024	11-29-20
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-21
Minnesota	NELAP	019-999-319	12-31-20
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-30-20
Oregon	NELAP	IA100001	09-29-20
USDA	US Federal Programs	P330-19-00003	01-02-22

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20

Eurofins TestAmerica, Cedar Falls

Accreditation/Certification Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Laboratory: Eurofins TestAmerica, St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566





310-179739 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: <small>CITY</small> <u>Omaha</u> <small>STATE</small> <u>NE</u>	Project: <u>North Omaha Steponca R</u>	
Receipt Information		
Date/Time Received: <small>DATE</small> <u>4/14/20</u> <small>TIME</small> <u>0930</u>	Received By: <u>a</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0.0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>0.4</u>	Corrected Temp (°C): <u>0.4</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW 5 MW 8 MW 17</u>		



Environment Testing
TestAmerica

Place COC scanning label
here 268

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station CR</u>	
Receipt Information		
Date/Time Received: DATE <u>4/16/20</u> TIME <u>0930</u>	Received By: <u>a</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0.0</u>	
* Temp Blank Temperature -- If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>0.8</u>	Corrected Temp (°C): <u>0.8</u>	
Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>MW 151, MW 13, MW 6. Dup 1</u>		



Environment Testing
TestAmerica

Place COC scanning label
here 268

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>OPPD</u>			
City/State:	CITY <u>Omaha</u>	STATE <u>NE</u>	Project: <u>North Omaha Station CR</u>
Receipt Information			
Date/Time Received:	DATE <u>4/16/20</u>	TIME <u>0930</u>	Received By: <u>a</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>3</u> of <u>3</u>	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>N</u>		Correction Factor (°C): <u>0.0</u>	
Temp Blank Temperature – If no temp blank; or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.8</u>		Corrected Temp (°C): <u>0.8</u>	
Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			
<u>MW 2 MW 9 MW 19 MW 18</u>			

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

Chain of Custody Record

Client Information Client Contact: Kyle K. Uhing Phone: (531) 226-2515 Company: Omaha Public Power District		Lab PM: Hayes, Shawn M E-Mail: shawn.hayes@testamericainc.com		Carrier Tracking No(s): COC No: Page: Job #:	
Address: 444 South 16th Street Mall 9E/EP1 City: Omaha State/Zip: NE, 68102-2247 Phone: (531) 226-2515 Email: kkuhing@oppd.com		Due Date Requested: TAT Requested (days): PO #: WO #: TestAmerica Project #: 31007560 SSOW#:		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 Other: 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 Z - other (specify)	
Sample Identification MW2 MW5 MW6 MW8 MW9 MW13 MW15 MW17 MW18 MW19 DUP1		Sample Date 4/14/2020 10:10 4/14/2020 12:47 4/14/2020 3:20 4/14/2020 14:34 4/13/2020 18:14 4/14/2020 9:10 4/14/2020 12:22 4/14/2020 15:51 4/13/2020 14:14 4/13/2020 16:43 4/14/2020 --		Sample Time G W G W G W G W G W G W G W G W G W G W G W	
Matrix (Hexane, MeOH, Ozone, etc.) Preservation Code:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)		Analysis Requested Total 9029A CCR Appendix III and IV, 7479A Mercury 9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228 2540C TDS, 9056A Chloride, Fluoride, Sulfate	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements: <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Kyle K. Uhing		Date: 4/15/2020 14:20		Method of Shipment:	
Relinquished by:		Date/Time: 4/15/2020 14:20		Company: OPPD	
Relinquished by:		Date/Time: 4/15/2020 17:00		Company: EuraFas	
Relinquished by:		Date/Time:		Company: ETA	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container		Preservative	
			pH	Temp	Added (mls)	Lot #
MW2	310-179739-A-1	Plastic 250ml - with Nitric Acid	<2			
MW2	310-179739-C-1	Plastic 1 liter - Nitric Acid	<2			
MW2	310-179739-D-1	Plastic 1 liter - Nitric Acid	<2			
MW5	310-179739-A-2	Plastic 250ml - with Nitric Acid	<2			
MW5	310-179739-C-2	Plastic 1 liter - Nitric Acid	<2			
MW5	310-179739-D-2	Plastic 1 liter - Nitric Acid	<2			
MW6	310-179739-A-3	Plastic 250ml - with Nitric Acid	<2			
MW6	310-179739-C-3	Plastic 1 liter - Nitric Acid	<2			
MW6	310-179739-D-3	Plastic 1 liter - Nitric Acid	<2			
MW8	310-179739-A-4	Plastic 250ml - with Nitric Acid	<2			
MW8	310-179739-C-4	Plastic 1 liter - Nitric Acid	<2			
MW8	310-179739-D-4	Plastic 1 liter - Nitric Acid	<2			
MW9	310-179739-A-5	Plastic 250ml - with Nitric Acid	<2			
MW9	310-179739-C-5	Plastic 1 liter - Nitric Acid	<2			
MW9	310-179739-D-5	Plastic 1 liter - Nitric Acid	<2			
MW13	310-179739-A-6	Plastic 250ml - with Nitric Acid	<2			
MW13	310-179739-C-6	Plastic 1 liter - Nitric Acid	<2			
MW13	310-179739-D-6	Plastic 1 liter - Nitric Acid	<2			
MW15	310-179739-A-7	Plastic 250ml - with Nitric Acid	<2			
MW15	310-179739-C-7	Plastic 1 liter - Nitric Acid	<2			
MW15	310-179739-D-7	Plastic 1 liter - Nitric Acid	<2			
MW17	310-179739-A-8	Plastic 250ml - with Nitric Acid	<2			
MW17	310-179739-C-8	Plastic 1 liter - Nitric Acid	<2			
MW17	310-179739-D-8	Plastic 1 liter - Nitric Acid	<2			
MW18	310-179739-A-9	Plastic 250ml - with Nitric Acid	<2			
MW18	310-179739-C-9	Plastic 1 liter - Nitric Acid	<2			
MW18	310-179739-D-9	Plastic 1 liter - Nitric Acid	<2			
MW19	310-179739-A-10	Plastic 250ml - with Nitric Acid	<2			
MW19	310-179739-C-10	Plastic 1 liter - Nitric Acid	<2			
MW19	310-179739-D-10	Plastic 1 liter - Nitric Acid	<2			
DUP1	310-179739-A-11	Plastic 250ml - with Nitric Acid	<2			
DUP1	310-179739-C-11	Plastic 1 liter - Nitric Acid	<2			
DUP1	310-179739-D-11	Plastic 1 liter - Nitric Acid	<2			



Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-179739-2

Login Number: 179739

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Bovy, Lorraine L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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: Omaha Public Power District

Job Number: 310-179739-2

Login Number: 179739

List Number: 2

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 04/17/20 08:53 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	



Tracer/Carrier Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR

Job ID: 310-179739-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	
310-179739-1	MW2	93.3	
310-179739-2	MW5	89.6	
310-179739-3	MW6	77.1	
310-179739-4	MW8	90.9	
310-179739-5	MW9	85.1	
310-179739-6	MW13	87.8	
310-179739-7	MW15	91.5	
310-179739-8	MW17	87.8	
310-179739-9	MW18	90.2	
310-179739-10	MW19	91.2	
310-179739-11	DUP1	97.3	
LCS 160-468909/1-A	Lab Control Sample	91.5	
LCSD 160-468909/2-A	Lab Control Sample Dup	96.6	
MB 160-468909/23-A	Method Blank	98.2	

Tracer/Carrier Legend
 Ba Carrier = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	Y Carrier (40-110)
310-179739-1	MW2	93.3	85.6
310-179739-2	MW5	89.6	85.6
310-179739-3	MW6	77.1	90.5
310-179739-4	MW8	90.9	86.4
310-179739-5	MW9	85.1	86.7
310-179739-6	MW13	87.8	86.7
310-179739-7	MW15	91.5	87.1
310-179739-8	MW17	87.8	89.0
310-179739-9	MW18	90.2	86.7
310-179739-10	MW19	91.2	88.6
310-179739-11	DUP1	97.3	87.1
LCS 160-468910/1-A	Lab Control Sample	91.5	89.0
LCSD 160-468910/2-A	Lab Control Sample Dup	96.6	88.6
MB 160-468910/23-A	Method Blank	98.2	90.5

Tracer/Carrier Legend
 Ba Carrier = Ba Carrier
 Y Carrier = Y Carrier

ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-192648-1

Client Project/Site: North Omaha Station CCR Landfill

For:

Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Attn: Kyle Uhing



*Authorized for release by:
10/16/2020 11:54:54 AM*

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Job ID: 310-192648-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-192648-1

Comments

No additional comments.

Receipt

The samples were received on 10/9/2020 9:20 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.3° C, 2.5° C and 2.8° C.

HPLC/IC

Method 9056A: The continuing calibration verification (CCV) associated with batch 310-295631 recovered above the upper control limit for Fluoride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW9 (310-192648-5), MW15 (310-192648-7), MW17 (310-192648-8), MW18 (310-192648-9) and DUP1 (310-192648-11).

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

Metals

Method 6020A: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: MW17 (310-192648-8).

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.



Sample Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-192648-1	MW2	Water	10/07/20 15:07	10/09/20 09:20	
310-192648-2	MW5	Water	10/08/20 13:23	10/09/20 09:20	
310-192648-3	MW6	Water	10/07/20 18:31	10/09/20 09:20	
310-192648-4	MW8	Water	10/08/20 10:32	10/09/20 09:20	
310-192648-5	MW9	Water	10/07/20 13:17	10/09/20 09:20	
310-192648-6	MW13	Water	10/07/20 14:20	10/09/20 09:20	
310-192648-7	MW15	Water	10/07/20 17:13	10/09/20 09:20	
310-192648-8	MW17	Water	10/08/20 11:27	10/09/20 09:20	
310-192648-9	MW18	Water	10/07/20 11:12	10/09/20 09:20	
310-192648-10	MW19	Water	10/07/20 11:58	10/09/20 09:20	
310-192648-11	DUP1	Water	10/08/20 00:00	10/09/20 09:20	



Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW2

Lab Sample ID: 310-192648-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21.4		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.352	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	807		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.224		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.100		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	2.16		0.100	0.0800	mg/L	1		6020A	Total/NA
Calcium	265		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000535		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000455	J	0.000500	0.000110	mg/L	1		6020A	Total/NA
Lithium	0.0392		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.00112	J	0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1840		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW5

Lab Sample ID: 310-192648-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39.7		5.00	2.00	mg/L	5		9056A	Total/NA
Sulfate	1200		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0681		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0477		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.664		0.100	0.0800	mg/L	1		6020A	Total/NA
Calcium	424		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000350	J	0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lithium	0.0848		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.00110	J	0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	2380		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW6

Lab Sample ID: 310-192648-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	409		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.373	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	346		5.00	3.55	mg/L	5		9056A	Total/NA
Arsenic	0.0123		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.143		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.557		0.100	0.0800	mg/L	1		6020A	Total/NA
Cadmium	0.000250		0.000100	0.0000490	mg/L	1		6020A	Total/NA
Calcium	319		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00770		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.00159		0.000500	0.000110	mg/L	1		6020A	Total/NA
Lithium	0.0461		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.0642		0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	320		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW8

Lab Sample ID: 310-192648-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.8		5.00	2.00	mg/L	5		9056A	Total/NA
Sulfate	560		5.00	3.55	mg/L	5		9056A	Total/NA
Arsenic	0.00998		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0851		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	2.24		0.100	0.0800	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW8 (Continued)

Lab Sample ID: 310-192648-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.0000660	J	0.000100	0.0000490	mg/L	1		6020A	Total/NA
Calcium	139		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000543		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000146	J	0.000500	0.000110	mg/L	1		6020A	Total/NA
Lithium	0.0133		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.101		0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	986		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW9

Lab Sample ID: 310-192648-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	217		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.410	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	48.0		5.00	3.55	mg/L	5		9056A	Total/NA
Arsenic	0.00544		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.523		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.101		0.100	0.0800	mg/L	1		6020A	Total/NA
Calcium	145		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000199	J	0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000464	J	0.000500	0.000110	mg/L	1		6020A	Total/NA
Lithium	0.0478		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	820		60.0	52.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13

Lab Sample ID: 310-192648-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.82		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.391	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	821		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.167		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.111		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	2.19		0.100	0.0800	mg/L	1		6020A	Total/NA
Cadmium	0.000464		0.000100	0.0000490	mg/L	1		6020A	Total/NA
Calcium	188		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.000661		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lithium	0.0256		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	1.41		0.00200	0.00110	mg/L	1		6020A	Total/NA
Selenium	0.0408		0.00500	0.00100	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1640		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW15

Lab Sample ID: 310-192648-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.51		5.00	2.00	mg/L	5		9056A	Total/NA
Sulfate	495		5.00	3.55	mg/L	5		9056A	Total/NA
Antimony	0.00155		0.00100	0.000510	mg/L	1		6020A	Total/NA
Arsenic	0.00230		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0612		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	3.44		0.100	0.0800	mg/L	1		6020A	Total/NA
Cadmium	0.0000710	J	0.000100	0.0000490	mg/L	1		6020A	Total/NA
Calcium	199		0.500	0.190	mg/L	1		6020A	Total/NA
Chromium	0.00178	J	0.00500	0.00110	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW15 (Continued)

Lab Sample ID: 310-192648-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.000224	J	0.000500	0.000110	mg/L	1		6020A	Total/NA
Lithium	0.00986	J	0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.216		0.00200	0.00110	mg/L	1		6020A	Total/NA
Selenium	0.0540		0.00500	0.00100	mg/L	1		6020A	Total/NA
Total Dissolved Solids	978		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW17

Lab Sample ID: 310-192648-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31.1		5.00	2.00	mg/L	5		9056A	Total/NA
Sulfate	684		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0206		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0323		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.709		0.100	0.0800	mg/L	1		6020A	Total/NA
Calcium	269		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00898		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lithium	0.0948		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1600		150	130	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW18

Lab Sample ID: 310-192648-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.48		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.320	J	0.500	0.230	mg/L	5		9056A	Total/NA
Arsenic	0.000972	J	0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.215		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.0811	J	0.100	0.0800	mg/L	1		6020A	Total/NA
Calcium	72.6		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.0000920	J	0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lead	0.000219	J	0.000500	0.000110	mg/L	1		6020A	Total/NA
Lithium	0.0203		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	316		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW19

Lab Sample ID: 310-192648-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23.3		5.00	2.00	mg/L	5		9056A	Total/NA
Fluoride	0.469	J	0.500	0.230	mg/L	5		9056A	Total/NA
Sulfate	33.5		5.00	3.55	mg/L	5		9056A	Total/NA
Barium	0.363		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.107		0.100	0.0800	mg/L	1		6020A	Total/NA
Calcium	109		0.500	0.190	mg/L	1		6020A	Total/NA
Lithium	0.0363		0.0100	0.00250	mg/L	1		6020A	Total/NA
Total Dissolved Solids	482		30.0	26.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP1

Lab Sample ID: 310-192648-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	32.3		5.00	2.00	mg/L	5		9056A	Total/NA
Sulfate	681		20.0	14.2	mg/L	20		9056A	Total/NA
Arsenic	0.0251		0.00200	0.000880	mg/L	1		6020A	Total/NA
Barium	0.0342		0.00200	0.000280	mg/L	1		6020A	Total/NA
Boron	0.658		0.100	0.0800	mg/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: DUP1 (Continued)

Lab Sample ID: 310-192648-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	275		0.500	0.190	mg/L	1		6020A	Total/NA
Cobalt	0.00904		0.000500	0.0000910	mg/L	1		6020A	Total/NA
Lithium	0.100		0.0100	0.00250	mg/L	1		6020A	Total/NA
Molybdenum	0.00202		0.00200	0.00110	mg/L	1		6020A	Total/NA
Total Dissolved Solids	1600		150	130	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls



Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW2

Lab Sample ID: 310-192648-1

Date Collected: 10/07/20 15:07

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.4		5.00	2.00	mg/L			10/13/20 17:24	5
Fluoride	0.352	J	0.500	0.230	mg/L			10/13/20 17:24	5
Sulfate	807		20.0	14.2	mg/L			10/14/20 08:46	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:27	1
Arsenic	0.224		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:27	1
Barium	0.100		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:27	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:27	1
Boron	2.16		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:27	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:27	1
Calcium	265		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:27	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:27	1
Cobalt	0.000535		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:27	1
Lead	0.000455	J	0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:27	1
Lithium	0.0392		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:27	1
Molybdenum	0.00112	J	0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:15	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:27	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1840		150	130	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW5

Lab Sample ID: 310-192648-2

Date Collected: 10/08/20 13:23

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.7		5.00	2.00	mg/L			10/13/20 17:39	5
Fluoride	<0.230		0.500	0.230	mg/L			10/13/20 17:39	5
Sulfate	1200		20.0	14.2	mg/L			10/14/20 09:02	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:30	1
Arsenic	0.0681		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:30	1
Barium	0.0477		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:30	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:30	1
Boron	0.664		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:30	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:30	1
Calcium	424		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:30	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:30	1
Cobalt	0.000350	J	0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:30	1
Lead	<0.000110		0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:30	1
Lithium	0.0848		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:30	1
Molybdenum	0.00110	J	0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:18	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:30	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2380		150	130	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW6

Lab Sample ID: 310-192648-3

Date Collected: 10/07/20 18:31

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	409		5.00	2.00	mg/L			10/13/20 17:54	5
Fluoride	0.373	J	0.500	0.230	mg/L			10/13/20 17:54	5
Sulfate	346		5.00	3.55	mg/L			10/13/20 17:54	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:32	1
Arsenic	0.0123		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:32	1
Barium	0.143		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:32	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:32	1
Boron	0.557		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:32	1
Cadmium	0.000250		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:32	1
Calcium	319		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:32	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:32	1
Cobalt	0.00770		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:32	1
Lead	0.00159		0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:32	1
Lithium	0.0461		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:32	1
Molybdenum	0.0642		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:20	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:32	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:32	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	320		30.0	26.0	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW8

Lab Sample ID: 310-192648-4

Date Collected: 10/08/20 10:32

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.8		5.00	2.00	mg/L			10/13/20 18:10	5
Fluoride	<0.230		0.500	0.230	mg/L			10/13/20 18:10	5
Sulfate	560		5.00	3.55	mg/L			10/13/20 18:10	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:45	1
Arsenic	0.00998		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:45	1
Barium	0.0851		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:45	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:45	1
Boron	2.24		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:45	1
Cadmium	0.0000660	J	0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:45	1
Calcium	139		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:45	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:45	1
Cobalt	0.000543		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:45	1
Lead	0.000146	J	0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:45	1
Lithium	0.0133		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:45	1
Molybdenum	0.101		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:23	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:45	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	986		30.0	26.0	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW9

Lab Sample ID: 310-192648-5

Date Collected: 10/07/20 13:17

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	217		5.00	2.00	mg/L			10/13/20 18:57	5
Fluoride	0.410	J	0.500	0.230	mg/L			10/13/20 18:57	5
Sulfate	48.0		5.00	3.55	mg/L			10/13/20 18:57	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:48	1
Arsenic	0.00544		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:48	1
Barium	0.523		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:48	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:48	1
Boron	0.101		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:48	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:48	1
Calcium	145		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:48	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:48	1
Cobalt	0.000199	J	0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:48	1
Lead	0.000464	J	0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:48	1
Lithium	0.0478		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:48	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:26	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:48	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		60.0	52.0	mg/L			10/12/20 11:43	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW13

Lab Sample ID: 310-192648-6

Date Collected: 10/07/20 14:20

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.82		5.00	2.00	mg/L			10/13/20 19:13	5
Fluoride	0.391	J	0.500	0.230	mg/L			10/14/20 09:33	5
Sulfate	821		20.0	14.2	mg/L			10/14/20 09:49	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:50	1
Arsenic	0.167		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:50	1
Barium	0.111		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:50	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:50	1
Boron	2.19		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:50	1
Cadmium	0.000464		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:50	1
Calcium	188		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:50	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:50	1
Cobalt	0.000661		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:50	1
Lead	<0.000110		0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:50	1
Lithium	0.0256		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:50	1
Molybdenum	1.41		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:28	1
Selenium	0.0408		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:50	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:50	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1640		150	130	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW15

Lab Sample ID: 310-192648-7

Date Collected: 10/07/20 17:13

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.51		5.00	2.00	mg/L			10/13/20 19:28	5
Fluoride	<0.230		0.500	0.230	mg/L			10/13/20 19:28	5
Sulfate	495		5.00	3.55	mg/L			10/13/20 19:28	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00155		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:53	1
Arsenic	0.00230		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:53	1
Barium	0.0612		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:53	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:53	1
Boron	3.44		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:53	1
Cadmium	0.0000710	J	0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:53	1
Calcium	199		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:53	1
Chromium	0.00178	J	0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:53	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:53	1
Lead	0.000224	J	0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:53	1
Lithium	0.00986	J	0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:53	1
Molybdenum	0.216		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:31	1
Selenium	0.0540		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:53	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	978		30.0	26.0	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW17

Lab Sample ID: 310-192648-8

Date Collected: 10/08/20 11:27

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.1		5.00	2.00	mg/L			10/13/20 19:44	5
Fluoride	<0.230		0.500	0.230	mg/L			10/13/20 19:44	5
Sulfate	684		20.0	14.2	mg/L			10/14/20 10:04	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 00:56	1
Arsenic	0.0206		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 00:56	1
Barium	0.0323		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 00:56	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 00:56	1
Boron	0.709		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 00:56	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 00:56	1
Calcium	269		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 00:56	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 00:56	1
Cobalt	0.00898		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 00:56	1
Lead	<0.000110		0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 00:56	1
Lithium	0.0948		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 00:56	1
Molybdenum	<0.00440		0.00800	0.00440	mg/L		10/12/20 08:48	10/15/20 17:33	4
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 00:56	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 00:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:41	10/14/20 11:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		150	130	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW18
Date Collected: 10/07/20 11:12
Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-9
Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.48		5.00	2.00	mg/L			10/13/20 20:00	5
Fluoride	0.320	J	0.500	0.230	mg/L			10/13/20 20:00	5
Sulfate	<3.55		5.00	3.55	mg/L			10/13/20 20:00	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 01:01	1
Arsenic	0.000972	J	0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 01:01	1
Barium	0.215		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 01:01	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 01:01	1
Boron	0.0811	J	0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 01:01	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 01:01	1
Calcium	72.6		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 01:01	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 01:01	1
Cobalt	0.0000920	J	0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 01:01	1
Lead	0.000219	J	0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 01:01	1
Lithium	0.0203		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 01:01	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:38	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 01:01	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 01:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:41	10/14/20 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	316		30.0	26.0	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW19

Lab Sample ID: 310-192648-10

Date Collected: 10/07/20 11:58

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.3		5.00	2.00	mg/L			10/13/20 20:15	5
Fluoride	0.469	J	0.500	0.230	mg/L			10/14/20 10:20	5
Sulfate	33.5		5.00	3.55	mg/L			10/13/20 20:15	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 01:04	1
Arsenic	<0.000880		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 01:04	1
Barium	0.363		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 01:04	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 01:04	1
Boron	0.107		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 01:04	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 01:04	1
Calcium	109		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 01:04	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 01:04	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 01:04	1
Lead	<0.000110		0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 01:04	1
Lithium	0.0363		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 01:04	1
Molybdenum	<0.00110		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:52	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 01:04	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 01:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:41	10/14/20 11:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	482		30.0	26.0	mg/L			10/12/20 13:59	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: DUP1

Lab Sample ID: 310-192648-11

Date Collected: 10/08/20 00:00

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.3		5.00	2.00	mg/L			10/13/20 20:31	5
Fluoride	<0.230		0.500	0.230	mg/L			10/13/20 20:31	5
Sulfate	681		20.0	14.2	mg/L			10/14/20 10:36	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/15/20 01:06	1
Arsenic	0.0251		0.00200	0.000880	mg/L		10/12/20 08:48	10/15/20 01:06	1
Barium	0.0342		0.00200	0.000280	mg/L		10/12/20 08:48	10/15/20 01:06	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/15/20 01:06	1
Boron	0.658		0.100	0.0800	mg/L		10/12/20 08:48	10/15/20 01:06	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/15/20 01:06	1
Calcium	275		0.500	0.190	mg/L		10/12/20 08:48	10/15/20 01:06	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/15/20 01:06	1
Cobalt	0.00904		0.000500	0.0000910	mg/L		10/12/20 08:48	10/15/20 01:06	1
Lead	<0.000110		0.000500	0.000110	mg/L		10/12/20 08:48	10/15/20 01:06	1
Lithium	0.100		0.0100	0.00250	mg/L		10/12/20 08:48	10/15/20 01:06	1
Molybdenum	0.00202		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 17:54	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/15/20 01:06	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/15/20 01:06	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:41	10/14/20 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		150	130	mg/L			10/12/20 13:59	1

Definitions/Glossary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
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 Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-295631/3
Matrix: Water
Analysis Batch: 295631

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.400		1.00	0.400	mg/L			10/13/20 13:15	1
Fluoride	<0.0460		0.100	0.0460	mg/L			10/13/20 13:15	1
Sulfate	<0.710		1.00	0.710	mg/L			10/13/20 13:15	1

Lab Sample ID: LCS 310-295631/4
Matrix: Water
Analysis Batch: 295631

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.844		mg/L		98	90 - 110
Fluoride	2.00	2.112		mg/L		106	90 - 110
Sulfate	10.0	10.31		mg/L		103	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-295024/1-A
Matrix: Water
Analysis Batch: 295528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000510		0.00100	0.000510	mg/L		10/12/20 08:48	10/14/20 23:51	1
Arsenic	<0.000880		0.00200	0.000880	mg/L		10/12/20 08:48	10/14/20 23:51	1
Barium	<0.000280		0.00200	0.000280	mg/L		10/12/20 08:48	10/14/20 23:51	1
Beryllium	<0.000270		0.00100	0.000270	mg/L		10/12/20 08:48	10/14/20 23:51	1
Boron	<0.0800		0.100	0.0800	mg/L		10/12/20 08:48	10/14/20 23:51	1
Cadmium	<0.0000490		0.000100	0.0000490	mg/L		10/12/20 08:48	10/14/20 23:51	1
Calcium	<0.190		0.500	0.190	mg/L		10/12/20 08:48	10/14/20 23:51	1
Chromium	<0.00110		0.00500	0.00110	mg/L		10/12/20 08:48	10/14/20 23:51	1
Cobalt	<0.0000910		0.000500	0.0000910	mg/L		10/12/20 08:48	10/14/20 23:51	1
Lead	<0.000110		0.000500	0.000110	mg/L		10/12/20 08:48	10/14/20 23:51	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/12/20 08:48	10/14/20 23:51	1
Selenium	<0.00100		0.00500	0.00100	mg/L		10/12/20 08:48	10/14/20 23:51	1
Thallium	<0.000260		0.00100	0.000260	mg/L		10/12/20 08:48	10/14/20 23:51	1

Lab Sample ID: MB 310-295024/1-A
Matrix: Water
Analysis Batch: 295753

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00110		0.00200	0.00110	mg/L		10/12/20 08:48	10/15/20 16:47	1

Lab Sample ID: LCS 310-295024/2-A
Matrix: Water
Analysis Batch: 295528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.2089		mg/L		104	80 - 120
Arsenic	0.200	0.2062		mg/L		103	80 - 120
Barium	0.100	0.1056		mg/L		106	80 - 120
Beryllium	0.100	0.1056		mg/L		106	80 - 120

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QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

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

Lab Sample ID: LCS 310-295024/2-A
Matrix: Water
Analysis Batch: 295528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.200	0.2160		mg/L		108	80 - 120
Cadmium	0.100	0.1033		mg/L		103	80 - 120
Calcium	2.00	1.817		mg/L		91	80 - 120
Chromium	0.100	0.09930		mg/L		99	80 - 120
Cobalt	0.100	0.1012		mg/L		101	80 - 120
Lead	0.200	0.2169		mg/L		108	80 - 120
Lithium	0.200	0.2133		mg/L		107	80 - 120
Selenium	0.400	0.4120		mg/L		103	80 - 120

Lab Sample ID: LCS 310-295024/2-A
Matrix: Water
Analysis Batch: 295753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.200	0.2076		mg/L		104	80 - 120

Lab Sample ID: LCS 310-295024/2-A ^10
Matrix: Water
Analysis Batch: 295528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.200	0.1767		mg/L		88	80 - 120

Lab Sample ID: 310-192648-8 DU
Matrix: Water
Analysis Batch: 295528

Client Sample ID: MW17
Prep Type: Total/NA
Prep Batch: 295024

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.000510		<0.000510		mg/L		NC	20
Arsenic	0.0206		0.02011		mg/L		2	20
Barium	0.0323		0.03175		mg/L		2	20
Beryllium	<0.000270		<0.000270		mg/L		NC	20
Boron	0.709		0.6635		mg/L		7	20
Cadmium	<0.0000490		<0.0000490		mg/L		NC	20
Calcium	269		263.0		mg/L		2	20
Chromium	<0.00110		<0.00110		mg/L		NC	20
Cobalt	0.00898		0.008693		mg/L		3	20
Lead	<0.000110		<0.000110		mg/L		NC	20
Lithium	0.0948		0.09538		mg/L		0.6	20
Selenium	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.000260		<0.000260		mg/L		NC	20

Lab Sample ID: 310-192648-8 DU
Matrix: Water
Analysis Batch: 295753

Client Sample ID: MW17
Prep Type: Total/NA
Prep Batch: 295024

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Molybdenum	<0.00440		<0.00440		mg/L		NC	20

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-295259/1-A
 Matrix: Water
 Analysis Batch: 295425

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 295259

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:39	10/14/20 10:26	1

Lab Sample ID: LCS 310-295259/2-A
 Matrix: Water
 Analysis Batch: 295425

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 295259

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00167	0.001659		mg/L		100	80 - 120

Lab Sample ID: MB 310-295264/1-A
 Matrix: Water
 Analysis Batch: 295425

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 295264

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000100		0.000200	0.000100	mg/L		10/13/20 12:41	10/14/20 11:26	1

Lab Sample ID: LCS 310-295264/2-A
 Matrix: Water
 Analysis Batch: 295425

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 295264

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00167	0.001721		mg/L		103	80 - 120

Lab Sample ID: 310-192648-8 MS
 Matrix: Water
 Analysis Batch: 295425

Client Sample ID: MW17
 Prep Type: Total/NA
 Prep Batch: 295264

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.000100		0.00167	0.001584		mg/L		95	80 - 120

Lab Sample ID: 310-192648-8 MSD
 Matrix: Water
 Analysis Batch: 295425

Client Sample ID: MW17
 Prep Type: Total/NA
 Prep Batch: 295264

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.000100		0.00167	0.001519		mg/L		91	80 - 120	4	20

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

Lab Sample ID: MB 310-295081/1
 Matrix: Water
 Analysis Batch: 295081

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	<26.0		30.0	26.0	mg/L			10/12/20 11:43	1

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

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

Lab Sample ID: LCS 310-295081/2
Matrix: Water
Analysis Batch: 295081

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	1000	934.0		mg/L		93	90 - 110

Lab Sample ID: MB 310-295097/1
Matrix: Water
Analysis Batch: 295097

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	<26.0		30.0	26.0	mg/L			10/12/20 13:59	1

Lab Sample ID: LCS 310-295097/2
Matrix: Water
Analysis Batch: 295097

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	1000	984.0		mg/L		98	90 - 110

- 1
- 2
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- 11
- 12
- 13
- 14

QC Association Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

HPLC/IC

Analysis Batch: 295631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	9056A	
310-192648-1	MW2	Total/NA	Water	9056A	
310-192648-2	MW5	Total/NA	Water	9056A	
310-192648-2	MW5	Total/NA	Water	9056A	
310-192648-3	MW6	Total/NA	Water	9056A	
310-192648-4	MW8	Total/NA	Water	9056A	
310-192648-5	MW9	Total/NA	Water	9056A	
310-192648-6	MW13	Total/NA	Water	9056A	
310-192648-6	MW13	Total/NA	Water	9056A	
310-192648-6	MW13	Total/NA	Water	9056A	
310-192648-7	MW15	Total/NA	Water	9056A	
310-192648-8	MW17	Total/NA	Water	9056A	
310-192648-8	MW17	Total/NA	Water	9056A	
310-192648-9	MW18	Total/NA	Water	9056A	
310-192648-10	MW19	Total/NA	Water	9056A	
310-192648-10	MW19	Total/NA	Water	9056A	
310-192648-11	DUP1	Total/NA	Water	9056A	
310-192648-11	DUP1	Total/NA	Water	9056A	
MB 310-295631/3	Method Blank	Total/NA	Water	9056A	
LCS 310-295631/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 295024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	3010A	
310-192648-2	MW5	Total/NA	Water	3010A	
310-192648-3	MW6	Total/NA	Water	3010A	
310-192648-4	MW8	Total/NA	Water	3010A	
310-192648-5	MW9	Total/NA	Water	3010A	
310-192648-6	MW13	Total/NA	Water	3010A	
310-192648-7	MW15	Total/NA	Water	3010A	
310-192648-8	MW17	Total/NA	Water	3010A	
310-192648-9	MW18	Total/NA	Water	3010A	
310-192648-10	MW19	Total/NA	Water	3010A	
310-192648-11	DUP1	Total/NA	Water	3010A	
MB 310-295024/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-295024/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCS 310-295024/2-A ^10	Lab Control Sample	Total/NA	Water	3010A	
310-192648-8 DU	MW17	Total/NA	Water	3010A	

Prep Batch: 295259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	7470A	
310-192648-2	MW5	Total/NA	Water	7470A	
310-192648-3	MW6	Total/NA	Water	7470A	
310-192648-4	MW8	Total/NA	Water	7470A	
310-192648-5	MW9	Total/NA	Water	7470A	
310-192648-6	MW13	Total/NA	Water	7470A	
310-192648-7	MW15	Total/NA	Water	7470A	
MB 310-295259/1-A	Method Blank	Total/NA	Water	7470A	

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QC Association Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Metals (Continued)

Prep Batch: 295259 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-295259/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 295264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-8	MW17	Total/NA	Water	7470A	
310-192648-9	MW18	Total/NA	Water	7470A	
310-192648-10	MW19	Total/NA	Water	7470A	
310-192648-11	DUP1	Total/NA	Water	7470A	
MB 310-295264/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-295264/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-192648-8 MS	MW17	Total/NA	Water	7470A	
310-192648-8 MSD	MW17	Total/NA	Water	7470A	

Analysis Batch: 295425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	7470A	295259
310-192648-2	MW5	Total/NA	Water	7470A	295259
310-192648-3	MW6	Total/NA	Water	7470A	295259
310-192648-4	MW8	Total/NA	Water	7470A	295259
310-192648-5	MW9	Total/NA	Water	7470A	295259
310-192648-6	MW13	Total/NA	Water	7470A	295259
310-192648-7	MW15	Total/NA	Water	7470A	295259
310-192648-8	MW17	Total/NA	Water	7470A	295264
310-192648-9	MW18	Total/NA	Water	7470A	295264
310-192648-10	MW19	Total/NA	Water	7470A	295264
310-192648-11	DUP1	Total/NA	Water	7470A	295264
MB 310-295259/1-A	Method Blank	Total/NA	Water	7470A	295259
MB 310-295264/1-A	Method Blank	Total/NA	Water	7470A	295264
LCS 310-295259/2-A	Lab Control Sample	Total/NA	Water	7470A	295259
LCS 310-295264/2-A	Lab Control Sample	Total/NA	Water	7470A	295264
310-192648-8 MS	MW17	Total/NA	Water	7470A	295264
310-192648-8 MSD	MW17	Total/NA	Water	7470A	295264

Analysis Batch: 295528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	6020A	295024
310-192648-2	MW5	Total/NA	Water	6020A	295024
310-192648-3	MW6	Total/NA	Water	6020A	295024
310-192648-4	MW8	Total/NA	Water	6020A	295024
310-192648-5	MW9	Total/NA	Water	6020A	295024
310-192648-6	MW13	Total/NA	Water	6020A	295024
310-192648-7	MW15	Total/NA	Water	6020A	295024
310-192648-8	MW17	Total/NA	Water	6020A	295024
310-192648-9	MW18	Total/NA	Water	6020A	295024
310-192648-10	MW19	Total/NA	Water	6020A	295024
310-192648-11	DUP1	Total/NA	Water	6020A	295024
MB 310-295024/1-A	Method Blank	Total/NA	Water	6020A	295024
LCS 310-295024/2-A	Lab Control Sample	Total/NA	Water	6020A	295024
LCS 310-295024/2-A ^10	Lab Control Sample	Total/NA	Water	6020A	295024
310-192648-8 DU	MW17	Total/NA	Water	6020A	295024

QC Association Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Metals

Analysis Batch: 295753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	6020A	295024
310-192648-2	MW5	Total/NA	Water	6020A	295024
310-192648-3	MW6	Total/NA	Water	6020A	295024
310-192648-4	MW8	Total/NA	Water	6020A	295024
310-192648-5	MW9	Total/NA	Water	6020A	295024
310-192648-6	MW13	Total/NA	Water	6020A	295024
310-192648-7	MW15	Total/NA	Water	6020A	295024
310-192648-8	MW17	Total/NA	Water	6020A	295024
310-192648-9	MW18	Total/NA	Water	6020A	295024
310-192648-10	MW19	Total/NA	Water	6020A	295024
310-192648-11	DUP1	Total/NA	Water	6020A	295024
MB 310-295024/1-A	Method Blank	Total/NA	Water	6020A	295024
LCS 310-295024/2-A	Lab Control Sample	Total/NA	Water	6020A	295024
310-192648-8 DU	MW17	Total/NA	Water	6020A	295024

General Chemistry

Analysis Batch: 295081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-5	MW9	Total/NA	Water	SM 2540C	
MB 310-295081/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-295081/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 295097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	SM 2540C	
310-192648-2	MW5	Total/NA	Water	SM 2540C	
310-192648-3	MW6	Total/NA	Water	SM 2540C	
310-192648-4	MW8	Total/NA	Water	SM 2540C	
310-192648-6	MW13	Total/NA	Water	SM 2540C	
310-192648-7	MW15	Total/NA	Water	SM 2540C	
310-192648-8	MW17	Total/NA	Water	SM 2540C	
310-192648-9	MW18	Total/NA	Water	SM 2540C	
310-192648-10	MW19	Total/NA	Water	SM 2540C	
310-192648-11	DUP1	Total/NA	Water	SM 2540C	
MB 310-295097/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-295097/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW2

Lab Sample ID: 310-192648-1

Date Collected: 10/07/20 15:07

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 17:24	ACJ	TAL CF
Total/NA	Analysis	9056A		20	295631	10/14/20 08:46	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:27	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:15	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:11	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: MW5

Lab Sample ID: 310-192648-2

Date Collected: 10/08/20 13:23

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 17:39	ACJ	TAL CF
Total/NA	Analysis	9056A		20	295631	10/14/20 09:02	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:30	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:18	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:13	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: MW6

Lab Sample ID: 310-192648-3

Date Collected: 10/07/20 18:31

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 17:54	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:32	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:20	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:15	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW8

Lab Sample ID: 310-192648-4

Date Collected: 10/08/20 10:32

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 18:10	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:45	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:23	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:18	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: MW9

Lab Sample ID: 310-192648-5

Date Collected: 10/07/20 13:17

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 18:57	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:48	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:26	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:20	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295081	10/12/20 11:43	SAS	TAL CF

Client Sample ID: MW13

Lab Sample ID: 310-192648-6

Date Collected: 10/07/20 14:20

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 19:13	ACJ	TAL CF
Total/NA	Analysis	9056A		5	295631	10/14/20 09:33	ACJ	TAL CF
Total/NA	Analysis	9056A		20	295631	10/14/20 09:49	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:50	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:28	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:22	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW15

Date Collected: 10/07/20 17:13

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 19:28	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:53	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:31	SAD	TAL CF
Total/NA	Prep	7470A			295259	10/13/20 12:39	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:24	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: MW17

Date Collected: 10/08/20 11:27

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 19:44	ACJ	TAL CF
Total/NA	Analysis	9056A		20	295631	10/14/20 10:04	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 00:56	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		4	295753	10/15/20 17:33	SAD	TAL CF
Total/NA	Prep	7470A			295264	10/13/20 12:41	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:35	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: MW18

Date Collected: 10/07/20 11:12

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 20:00	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 01:01	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:38	SAD	TAL CF
Total/NA	Prep	7470A			295264	10/13/20 12:41	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:41	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: MW19

Date Collected: 10/07/20 11:58

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 20:15	ACJ	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Client Sample ID: MW19

Lab Sample ID: 310-192648-10

Date Collected: 10/07/20 11:58

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/14/20 10:20	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 01:04	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:52	SAD	TAL CF
Total/NA	Prep	7470A			295264	10/13/20 12:41	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:43	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Client Sample ID: DUP1

Lab Sample ID: 310-192648-11

Date Collected: 10/08/20 00:00

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	295631	10/13/20 20:31	ACJ	TAL CF
Total/NA	Analysis	9056A		20	295631	10/14/20 10:36	ACJ	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295528	10/15/20 01:06	SAD	TAL CF
Total/NA	Prep	3010A			295024	10/12/20 08:48	HED	TAL CF
Total/NA	Analysis	6020A		1	295753	10/15/20 17:54	SAD	TAL CF
Total/NA	Prep	7470A			295264	10/13/20 12:41	ACJ	TAL CF
Total/NA	Analysis	7470A		1	295425	10/14/20 11:45	ACJ	TAL CF
Total/NA	Analysis	SM 2540C		1	295097	10/12/20 13:59	SAS	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	101044	11-01-20
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-21
Georgia	State	IA100001 (OR)	09-29-21
Illinois	NELAP	200024	11-29-20
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-21
Minnesota	NELAP	019-999-319	12-31-20
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-30-20 *
Oregon	NELAP	IA100001	09-29-21
USDA	US Federal Programs	P330-19-00003	01-02-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Method Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

Protocol References:

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:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>OPPD</u>			
City/State:	CITY <u>Omaha</u>	STATE <u>NE</u>	Project: <u>North Omaha Station</u>
Receipt Information			
Date/Time Received:	DATE <u>10/4/20</u>	TIME <u>0920</u>	Received By: <u>MRH</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{MRH 10/4/20}	If yes: Cooler # <u>1</u> of <u>3</u>	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>P</u>		Correction Factor (°C): <u>+0.1</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.2</u>		Corrected Temp (°C): <u>2.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station</u>	
Receipt Information		
Date/Time Received: DATE <u>10/9/20</u> TIME <u>0920</u>	Received By: <u>MRH</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{MRH 10/9/20}	If yes: Cooler # <u>2</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>P</u>	Correction Factor (°C): <u>+0.1</u>	
* Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>2.4</u>	Corrected Temp (°C): <u>2.5</u>	
Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		

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Cooler/Sample Receipt and Temperature Log Form

Client Information	
Client: <u>OPPD</u>	
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station</u>
Receipt Information	
Date/Time Received: DATE <u>10/9/20</u> TIME <u>0920</u>	Received By: <u>MRH</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____	
Condition of Cooler/Containers	
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{MRH 10/9/20} If yes: Cooler # <u>3</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓
Temperature Record	
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE	
Thermometer ID: <u>P</u>	Correction Factor (°C): <u>+0.1</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature	
Uncorrected Temp (°C):	Corrected Temp (°C):
• Sample Container Temperature	
Container(s) used:	CONTAINER 1 <u>Plus 500ml NT</u>
Uncorrected Temp (°C):	<u>2.7</u>
Corrected Temp (°C):	<u>2.8</u>
Exceptions Noted	
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No	
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No	
NOTE: If yes, contact PM before proceeding. If no, proceed with login	
Additional Comments	

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Chain of Custody Record

Client Information Client Contact: Kyle Uhing Phone: (531) 226-2515 Company: Omaha Public Power District Address: 444 South 16th Street Mall 9E/EP1 City: Omaha State, Zip: NE, 68102-2247 Phone: (531) 226-2515 Email: kkuhing@oppd.com Project Name: North Omaha Station Landfill Site: North Omaha Station		Lab PM: Hayes, Shawn M E-Mail: shawn.hayes@testamericainc.com Carrier Tracking No(s): Lab Mail: shawn.hayes@testamericainc.com E-Mail: shawn.hayes@testamericainc.com								
Due Date Requested: TAT Requested (days): PO #: WO #: TestAmerica Project #: SSOW#:		Analysis Requested 9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228 Total 6020A CCR Appendix III and IV, Iron, 7470A Mercury 2540C TDS, 9056A Chloride, Fluoride, Sulfate								
Sample Identification		Total Number of Containers								
Sample ID MW2 MW5 MW6 MW8 MW9 MW13 MW15 MW17 MW18 MW19 DUP1	Sample Date 10/7/20 10/9/20 10/7/20 10/9/20 10/7/20 10/7/20 10/9/20 10/7/20 10/7/20 10/9/20	Sample Time 15:57 13:23 14:31 10:32 13:17 14:20 17:15 11:27 11:12 11:58 -	Sample Type (C=comp, G=grab) G G G G G G G G G G	Matrix (Inorganic, Organic, Metals, Other) W W W W W W W W W W	Preservation Code: W W W W W W W W W W	Field Filtered Sample (Yes or No) N N N N N N N N N N	Perform MS/MSD (Yes or No) X X X X X X X X X X	D X X X X X X X X X	N X X X X X X X X X	Special Instructions/Note: CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron CCR Appendix III and IV Constituents, Iron
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:								
Empty Kit Relinquished by:		Method of Shipment:								
Relinquished by: [Signature] Date: 10/8/2020 14:59 Company: EWO/AFN		Received by: [Signature] Date: 10/8/2020 14:59 Company: EWO/AFN								
Relinquished by: [Signature] Date: 10/8/2020 17:00 Company: EWO		Received by: [Signature] Date: 10/9/20 09:20 Company:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:								



Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-192648-1

SDG Number:

Login Number: 192648

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Homolar, Dana J

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-192648-2

Client Project/Site: North Omaha Station CCR Landfill

For:

Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Attn: Kyle Uhing



*Authorized for release by:
11/12/2020 4:38:36 PM*

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Job ID: 310-192648-2

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-192648-2

Comments

No additional comments.

Receipt

The samples were received on 10/9/2020 9:20 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.3° C, 2.5° C and 2.8° C.

RAD

Methods 904.0, 9320: 904/9320 prep batch 485913

The LCS recovery (127%) for Ra228 was outside the upper QC limits of 75-125. It was within our statistical upper limit of 138%. The LCSD recovered at 114% of the true value and the RER/RPD was acceptable. Original results will be qualified and reported.

Method PrecSep_0: Radium 228 Prep Batch 160-485913:

Samples 310-192648-1, 310-192648-2, 310-192648-6, 310-192648-9, and 310-192648-10 were prepared at a reduced aliquot due to yellow discoloration: Samples 310-192648-3 and 310-192648-5 were prepared at a reduced aliquot due to a cloudy appearance.

Method PrecSep-21: Radium 226 Prep Batch 160-485829:

Samples 310-192648-1, 310-192648-2, 310-192648-6, 310-192648-9, and 310-192648-10 were prepared at a reduced aliquot due to yellow discoloration: Samples 310-192648-3 and 310-192648-5 were prepared at a reduced aliquot due to a cloudy appearance.

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



Sample Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-192648-1	MW2	Water	10/07/20 15:07	10/09/20 09:20	
310-192648-2	MW5	Water	10/08/20 13:23	10/09/20 09:20	
310-192648-3	MW6	Water	10/07/20 18:31	10/09/20 09:20	
310-192648-4	MW8	Water	10/08/20 10:32	10/09/20 09:20	
310-192648-5	MW9	Water	10/07/20 13:17	10/09/20 09:20	
310-192648-6	MW13	Water	10/07/20 14:20	10/09/20 09:20	
310-192648-7	MW15	Water	10/07/20 17:13	10/09/20 09:20	
310-192648-8	MW17	Water	10/08/20 11:27	10/09/20 09:20	
310-192648-9	MW18	Water	10/07/20 11:12	10/09/20 09:20	
310-192648-10	MW19	Water	10/07/20 11:58	10/09/20 09:20	
310-192648-11	DUP1	Water	10/08/20 00:00	10/09/20 09:20	

Detection Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW2 **Lab Sample ID: 310-192648-1**

No Detections.

Client Sample ID: MW5 **Lab Sample ID: 310-192648-2**

No Detections.

Client Sample ID: MW6 **Lab Sample ID: 310-192648-3**

No Detections.

Client Sample ID: MW8 **Lab Sample ID: 310-192648-4**

No Detections.

Client Sample ID: MW9 **Lab Sample ID: 310-192648-5**

No Detections.

Client Sample ID: MW13 **Lab Sample ID: 310-192648-6**

No Detections.

Client Sample ID: MW15 **Lab Sample ID: 310-192648-7**

No Detections.

Client Sample ID: MW17 **Lab Sample ID: 310-192648-8**

No Detections.

Client Sample ID: MW18 **Lab Sample ID: 310-192648-9**

No Detections.

Client Sample ID: MW19 **Lab Sample ID: 310-192648-10**

No Detections.

Client Sample ID: DUP1 **Lab Sample ID: 310-192648-11**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls



Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW2

Lab Sample ID: 310-192648-1

Date Collected: 10/07/20 15:07

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0761	U	0.185	0.185	1.00	0.347	pCi/L	10/15/20 14:39	11/11/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					10/15/20 14:39	11/11/20 18:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.770	*	0.402	0.409	1.00	0.597	pCi/L	10/16/20 06:54	11/11/20 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					10/16/20 06:54	11/11/20 12:09	1
Y Carrier	76.3		40 - 110					10/16/20 06:54	11/11/20 12:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.846		0.443	0.449	5.00	0.597	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW5

Lab Sample ID: 310-192648-2

Date Collected: 10/08/20 13:23

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.391		0.257	0.260	1.00	0.336	pCi/L	10/15/20 14:39	11/11/20 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/15/20 14:39	11/11/20 18:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331	U *	0.341	0.342	1.00	0.555	pCi/L	10/16/20 06:54	11/11/20 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					10/16/20 06:54	11/11/20 12:09	1
Y Carrier	76.6		40 - 110					10/16/20 06:54	11/11/20 12:09	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.722		0.427	0.430	5.00	0.555	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW6

Lab Sample ID: 310-192648-3

Date Collected: 10/07/20 18:31

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.258	U	0.238	0.240	1.00	0.360	pCi/L	10/15/20 14:39	11/11/20 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					10/15/20 14:39	11/11/20 18:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.569	*	0.353	0.356	1.00	0.535	pCi/L	10/16/20 06:54	11/11/20 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		40 - 110					10/16/20 06:54	11/11/20 12:10	1
Y Carrier	78.5		40 - 110					10/16/20 06:54	11/11/20 12:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.827		0.426	0.429	5.00	0.535	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW8

Lab Sample ID: 310-192648-4

Date Collected: 10/08/20 10:32

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.134	U	0.153	0.153	1.00	0.244	pCi/L	10/15/20 14:39	11/11/20 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					10/15/20 14:39	11/11/20 18:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0817	U *	0.219	0.219	1.00	0.380	pCi/L	10/16/20 06:54	11/11/20 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					10/16/20 06:54	11/11/20 12:10	1
Y Carrier	75.9		40 - 110					10/16/20 06:54	11/11/20 12:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.216	U	0.267	0.267	5.00	0.380	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW9

Lab Sample ID: 310-192648-5

Date Collected: 10/07/20 13:17

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.605		0.300	0.305	1.00	0.329	pCi/L	10/15/20 14:39	11/11/20 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					10/15/20 14:39	11/11/20 18:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.775	*	0.390	0.396	1.00	0.576	pCi/L	10/16/20 06:54	11/11/20 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					10/16/20 06:54	11/11/20 12:10	1
Y Carrier	80.0		40 - 110					10/16/20 06:54	11/11/20 12:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.38		0.492	0.500	5.00	0.576	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW13
Date Collected: 10/07/20 14:20
Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-6
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169	U	0.217	0.218	1.00	0.361	pCi/L	10/15/20 14:39	11/11/20 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					10/15/20 14:39	11/11/20 18:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.503	U *	0.368	0.371	1.00	0.577	pCi/L	10/16/20 06:54	11/11/20 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					10/16/20 06:54	11/11/20 12:10	1
Y Carrier	78.9		40 - 110					10/16/20 06:54	11/11/20 12:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.672		0.427	0.430	5.00	0.577	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW15
Date Collected: 10/07/20 17:13
Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-7
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.167	0.167	1.00	0.288	pCi/L	10/15/20 14:39	11/11/20 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					10/15/20 14:39	11/11/20 18:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0537	U *	0.240	0.240	1.00	0.423	pCi/L	10/16/20 06:54	11/11/20 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					10/16/20 06:54	11/11/20 12:10	1
Y Carrier	75.5		40 - 110					10/16/20 06:54	11/11/20 12:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.162	U	0.292	0.292	5.00	0.423	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW17
Date Collected: 10/08/20 11:27
Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-8
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.249	U	0.191	0.193	1.00	0.269	pCi/L	10/15/20 14:39	11/11/20 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					10/15/20 14:39	11/11/20 18:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.453	U *	0.298	0.301	1.00	0.460	pCi/L	10/16/20 06:54	11/11/20 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					10/16/20 06:54	11/11/20 12:10	1
Y Carrier	75.9		40 - 110					10/16/20 06:54	11/11/20 12:10	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.702		0.354	0.358	5.00	0.460	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW18
Date Collected: 10/07/20 11:12
Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-9
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.164	U	0.261	0.262	1.00	0.453	pCi/L	10/15/20 14:39	11/11/20 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					10/15/20 14:39	11/11/20 18:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.232	U *	0.399	0.399	1.00	0.676	pCi/L	10/16/20 06:54	11/11/20 12:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					10/16/20 06:54	11/11/20 12:11	1
Y Carrier	76.3		40 - 110					10/16/20 06:54	11/11/20 12:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.396	U	0.477	0.477	5.00	0.676	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW19

Lab Sample ID: 310-192648-10

Date Collected: 10/07/20 11:58

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.529	U	0.406	0.409	1.00	0.614	pCi/L	10/15/20 14:39	11/11/20 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					10/15/20 14:39	11/11/20 18:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.168	U *	0.413	0.413	1.00	0.708	pCi/L	10/16/20 06:54	11/11/20 12:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.1		40 - 110					10/16/20 06:54	11/11/20 12:11	1
Y Carrier	80.0		40 - 110					10/16/20 06:54	11/11/20 12:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.698	U	0.579	0.581	5.00	0.708	pCi/L		11/12/20 16:16	1

Client Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: DUP1

Lab Sample ID: 310-192648-11

Date Collected: 10/08/20 00:00

Matrix: Water

Date Received: 10/09/20 09:20

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0980	U	0.158	0.158	1.00	0.275	pCi/L	10/15/20 14:39	11/11/20 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					10/15/20 14:39	11/11/20 18:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.642	*	0.275	0.282	1.00	0.392	pCi/L	10/16/20 06:54	11/11/20 12:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					10/16/20 06:54	11/11/20 12:11	1
Y Carrier	82.6		40 - 110					10/16/20 06:54	11/11/20 12:11	1

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.740		0.317	0.323	5.00	0.392	pCi/L		11/12/20 16:16	1

Definitions/Glossary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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 Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-485829/23-A
Matrix: Water
Analysis Batch: 488915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485829

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.004364	U	0.145	0.145	1.00	0.301	pCi/L	10/15/20 14:39	11/11/20 21:01	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	84.8		40 - 110			10/15/20 14:39	11/11/20 21:01	1		

Lab Sample ID: LCS 160-485829/1-A
Matrix: Water
Analysis Batch: 488915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485829

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.88		1.42	1.00	0.287	pCi/L	96	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	77.7		40 - 110						

Lab Sample ID: LCSD 160-485829/2-A
Matrix: Water
Analysis Batch: 488915

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485829

Analyte	Spike Added	LCSD Result	LCSD Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	RER	Limit
				Uncert. (2σ+/-)							
Radium-226	11.3	8.714		1.21	1.00	0.293	pCi/L	77	75 - 125	0.82	1
Carrier	LCSD	LCSD	Limits			Prepared	Analyzed	Dil Fac			
	%Yield	Qualifier									
Ba Carrier	81.2		40 - 110								

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-485913/23-A
Matrix: Water
Analysis Batch: 488916

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485913

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.4431		0.280	0.283	1.00	0.429	pCi/L	10/16/20 06:54	11/11/20 12:30	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	84.8		40 - 110			10/16/20 06:54	11/11/20 12:30	1		
Y Carrier	86.4		40 - 110			10/16/20 06:54	11/11/20 12:30	1		

QC Sample Results

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-485913/1-A
Matrix: Water
Analysis Batch: 488918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485913

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									75	125
Radium-228	7.66	9.698	*	1.20	1.00	0.528	pCi/L	127	75	125
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	77.7		40 - 110							
Y Carrier	77.0		40 - 110							

Lab Sample ID: LCSD 160-485913/2-A
Matrix: Water
Analysis Batch: 488918

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485913

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	Limit
									75	125	0.42	1
Radium-228	7.66	8.740		1.08	1.00	0.457	pCi/L	114	75	125	0.42	1
LCSD LCSD												
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	81.2		40 - 110									
Y Carrier	81.5		40 - 110									

QC Association Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Rad

Prep Batch: 485829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	PrecSep-21	
310-192648-2	MW5	Total/NA	Water	PrecSep-21	
310-192648-3	MW6	Total/NA	Water	PrecSep-21	
310-192648-4	MW8	Total/NA	Water	PrecSep-21	
310-192648-5	MW9	Total/NA	Water	PrecSep-21	
310-192648-6	MW13	Total/NA	Water	PrecSep-21	
310-192648-7	MW15	Total/NA	Water	PrecSep-21	
310-192648-8	MW17	Total/NA	Water	PrecSep-21	
310-192648-9	MW18	Total/NA	Water	PrecSep-21	
310-192648-10	MW19	Total/NA	Water	PrecSep-21	
310-192648-11	DUP1	Total/NA	Water	PrecSep-21	
MB 160-485829/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485829/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-485829/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 485913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-192648-1	MW2	Total/NA	Water	PrecSep_0	
310-192648-2	MW5	Total/NA	Water	PrecSep_0	
310-192648-3	MW6	Total/NA	Water	PrecSep_0	
310-192648-4	MW8	Total/NA	Water	PrecSep_0	
310-192648-5	MW9	Total/NA	Water	PrecSep_0	
310-192648-6	MW13	Total/NA	Water	PrecSep_0	
310-192648-7	MW15	Total/NA	Water	PrecSep_0	
310-192648-8	MW17	Total/NA	Water	PrecSep_0	
310-192648-9	MW18	Total/NA	Water	PrecSep_0	
310-192648-10	MW19	Total/NA	Water	PrecSep_0	
310-192648-11	DUP1	Total/NA	Water	PrecSep_0	
MB 160-485913/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485913/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-485913/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW2

Lab Sample ID: 310-192648-1

Date Collected: 10/07/20 15:07

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:55	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:09	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW5

Lab Sample ID: 310-192648-2

Date Collected: 10/08/20 13:23

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:55	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:09	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW6

Lab Sample ID: 310-192648-3

Date Collected: 10/07/20 18:31

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:56	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW8

Lab Sample ID: 310-192648-4

Date Collected: 10/08/20 10:32

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:56	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW9

Lab Sample ID: 310-192648-5

Date Collected: 10/07/20 13:17

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:56	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW13

Lab Sample ID: 310-192648-6

Date Collected: 10/07/20 14:20

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:56	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW15

Lab Sample ID: 310-192648-7

Date Collected: 10/07/20 17:13

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:56	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW17

Lab Sample ID: 310-192648-8

Date Collected: 10/08/20 11:27

Matrix: Water

Date Received: 10/09/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:57	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:10	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Lab Chronicle

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Client Sample ID: MW18

Date Collected: 10/07/20 11:12

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:57	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:11	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: MW19

Date Collected: 10/07/20 11:58

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:57	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:11	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Client Sample ID: DUP1

Date Collected: 10/08/20 00:00

Date Received: 10/09/20 09:20

Lab Sample ID: 310-192648-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485829	10/15/20 14:39	AVB	TAL SL
Total/NA	Analysis	9315		1	488915	11/11/20 18:57	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485913	10/16/20 06:54	AVB	TAL SL
Total/NA	Analysis	9320		1	488918	11/11/20 12:11	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488984	11/12/20 16:16	SCB	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	12-01-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Method Summary

Client: Omaha Public Power District
Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station</u>	
Receipt Information		
Date/Time Received: DATE <u>10/4/20</u> TIME <u>0920</u>	Received By: <u>MRH</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{MRH 10/4/20}	If yes: Cooler # <u>1</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>P</u>	Correction Factor (°C): <u>+0.1</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>2.2</u>	Corrected Temp (°C): <u>2.3</u>	
• Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		



Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>OPPD</u>		
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station</u>	
Receipt Information		
Date/Time Received: DATE <u>10/9/20</u> TIME <u>0920</u>	Received By: <u>MRH</u>	
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{MRH 10/9/20}	If yes: Cooler # <u>2</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>P</u>	Correction Factor (°C): <u>+0.1</u>	
* Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>2.4</u>	Corrected Temp (°C): <u>2.5</u>	
Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		



Cooler/Sample Receipt and Temperature Log Form

Client Information	
Client: <u>OPPD</u>	
City/State: CITY <u>Omaha</u> STATE <u>NE</u>	Project: <u>North Omaha Station</u>
Receipt Information	
Date/Time Received: DATE <u>10/9/20</u> TIME <u>0920</u>	Received By: <u>MRH</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____	
Condition of Cooler/Containers	
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{MRH 10/9/20} If yes: Cooler # <u>3</u> of <u>3</u>
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Which VOA samples are in cooler? ↓
Temperature Record	
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE	
Thermometer ID: <u>P</u>	Correction Factor (°C): <u>+0.1</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature	
Uncorrected Temp (°C):	Corrected Temp (°C):
• Sample Container Temperature	
Container(s) used:	CONTAINER 1 <u>Plus 500ml NT</u>
Uncorrected Temp (°C):	<u>2.7</u>
Corrected Temp (°C):	<u>2.8</u>
Exceptions Noted	
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No	
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No	
NOTE: If yes, contact PM before proceeding. If no, proceed with login	
Additional Comments	

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-192648-2

SDG Number:

Login Number: 192648

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Homolar, Dana J

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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: Omaha Public Power District

Job Number: 310-192648-2

SDG Number:

Login Number: 192648

List Number: 2

Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis

List Creation: 10/10/20 11:30 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.	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	



Tracer/Carrier Summary

Client: Omaha Public Power District
 Project/Site: North Omaha Station CCR Landfill

Job ID: 310-192648-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
310-192648-1	MW2	90.3	
310-192648-2	MW5	93.8	
310-192648-3	MW6	92.1	
310-192648-4	MW8	94.7	
310-192648-5	MW9	91.8	
310-192648-6	MW13	95.0	
310-192648-7	MW15	93.5	
310-192648-8	MW17	92.4	
310-192648-9	MW18	81.5	
310-192648-10	MW19	87.1	
310-192648-11	DUP1	98.2	
LCS 160-485829/1-A	Lab Control Sample	77.7	
LCSD 160-485829/2-A	Lab Control Sample Dup	81.2	
MB 160-485829/23-A	Method Blank	84.8	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
310-192648-1	MW2	90.3	76.3
310-192648-2	MW5	93.8	76.6
310-192648-3	MW6	92.1	78.5
310-192648-4	MW8	94.7	75.9
310-192648-5	MW9	91.8	80.0
310-192648-6	MW13	95.0	78.9
310-192648-7	MW15	93.5	75.5
310-192648-8	MW17	92.4	75.9
310-192648-9	MW18	81.5	76.3
310-192648-10	MW19	87.1	80.0
310-192648-11	DUP1	98.2	82.6
LCS 160-485913/1-A	Lab Control Sample	77.7	77.0
LCSD 160-485913/2-A	Lab Control Sample Dup	81.2	81.5
MB 160-485913/23-A	Method Blank	84.8	86.4
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			



Appendix C

April 2020 and October 2020
Statistical Analysis Memos



Technical Memorandum

Date: Thursday, June 04, 2020

To: Omaha Public Power District (OPPD)

From: HDR Engineering, Inc.

Subject: Summary of Statistical Analysis and Evaluation for SSLs
North Omaha Station Ash Landfill
Spring 2020 CCR Groundwater Monitoring Report

OPPD owns and operates a five-unit fuel-fired generating plant at the North Omaha Station (NOS), herein referenced as “Station” or “Site”, in Omaha, Nebraska. Units 1, 2, and 3 were retired from operation (converted to natural gas), while Units 4 and 5 are operating as coal-burning units through the year 2023. This Station has one active coal combustion residuals (CCR) landfill, known as the North Omaha Station (NOS) Ash Landfill, which is subject to the United States Environmental Protection Agency’s (EPA’s) final CCR rule promulgated under 40 C.F.R Part 257 and Nebraska Department of Environment and Energy’s (NDEE) Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the statistical analysis conducted for the NOS Ash Landfill which consists of an unlined active CCR landfill of approximately 18 acres and a 1.4-acre undeveloped portion.

Groundwater sampling was completed as part of an assessment monitoring program for the NOS Ash Landfill in April 2020, (as specified in 40 CFR §257.95(d) and NDEE Title 132 Chapter 7 Section 005.06). The statistical analysis of groundwater data was performed in accordance with the methods described in the *Groundwater Monitoring Statistical Certification* for the North Omaha Station – NOS Ash Landfill, amended January 24, 2020. Sampling results used to update background threshold values (BTVs) were obtained during monitoring events performed between March 2016 and October 2019. Downgradient sampling results from the April 2020 assessment monitoring sampling event were used to evaluate for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over the groundwater protection standard (GWPS). The calculated BTVs and the evaluation for SSIs over background for the Appendix III constituents and Appendix IV constituents are provided in **Table C1**. The calculated lower confidence levels (LCLs) and the evaluation for SSLs over the GWPS for the Appendix IV constituents are provided in **Table C2**. No new SSLs were identified during the spring 2020 sampling event.



Table C1. Summary of Evaluation for SSIs over Background (April 2020)

Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17	
BTV (UPL):	Unit	Assessment Monitoring Results in accordance with Title 132 Chapter 7 Section 005.06 – April 2020							
Appendix III Constituents									
Boron	0.2	mg/L	<u>1.9</u>	<u>0.573</u>	<u>0.517</u>	<u>2.22</u>	<u>2.22</u>	<u>3.60</u>	<u>0.757</u>
Calcium	195	mg/L	<u>319</u>	<u>439</u>	<u>347</u>	162	<u>213</u>	<u>239</u>	<u>323</u>
Chloride	275	mg/L	22	40.7	<u>349</u>	10.9	9.24	7.81	30.2
Fluoride**	1.84	mg/L	0.427J	0.46J	0.487J	0.577	0.817	<0.23	0.274J
pH	6.24-7.83*	SU	6.59	6.70	6.55	7.60	6.58	7.68	6.31
Sulfate	57.5	mg/L	<u>816</u>	<u>1,080</u>	<u>297</u>	<u>565</u>	<u>794</u>	<u>514</u>	<u>671</u>
TDS	1190	mg/L	<u>1,670</u>	<u>2,120</u>	<u>1,380</u>	948	<u>1,410</u>	928	<u>1,650</u>
Appendix IV Constituents									
Antimony	0.001	mg/L	<0.00058	<0.00058	<0.00058	<0.00058	<0.00058	<0.00058	<0.00058
Arsenic	0.0118	mg/L	<u>0.241</u>	<u>0.0568</u>	<u>0.0198</u>	<u>0.012</u>	<u>0.0901</u>	0.00159J	0.0111
Barium	0.625	mg/L	0.0997	0.0669	0.197	0.0955	0.0979	0.0701	0.033
Beryllium	0.001	mg/L	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027	<0.00027
Cadmium	0.000537	mg/L	<0.000039	<0.000039	0.000209	<0.000039	0.000226	0.000054J	<0.000039
Chromium	0.005	mg/L	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.00495J	<0.0011
Cobalt	0.00293	mg/L	0.00113	0.000388J	<u>0.00673</u>	0.000503	0.000527	<0.000091	<u>0.101</u>
Fluoride**	1.84	mg/L	0.427J	0.46J	0.487J	0.577	0.817	<0.23	0.274J
Lead	0.0114	mg/L	0.000437J	0.000542	0.00132	0.000349J	<0.00027	<0.00027	<0.00027
Lithium	0.0541	mg/L	0.0398	<u>0.0718</u>	0.0432	0.0131	0.0232	0.00782J	<u>0.0969</u>
Mercury	0.00022	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum	0.002	mg/L	<0.0011	<0.0011	<u>0.0605</u>	<u>0.102</u>	<u>1.22</u>	<u>0.211</u>	<u>0.00264</u>
Radium 226+228	3.77	pCi/L	0.455	0.0513U	0.462U	0.215U	0.231U	0.175U	0.467
Selenium	0.005	mg/L	<0.001	<0.001	<0.001	<0.001	<u>0.0357</u>	<u>0.056</u>	<0.001
Thallium	0.001	mg/L	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026	<0.0026

Bold and underlined concentration indicates an SSI over background.

* indicates the lower bound of the range is the lower prediction limit (LPL). The upper bound is the upper prediction limit (UPL).

** Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

"U" data qualifier (radium) indicates parameter was analyzed for but not detected above limiting criteria (such as, but not limited to: minimum detectable concentration; total uncertainty; reporting limit) as defined in the analytical laboratory data package.

"J" data qualifier indicates that value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.



Table C2. Summary of Evaluation for SSLs over GWPS (April 2020)

Well ID:	MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17		
	<i>GWPS^[1]</i>	<i>Unit</i>	<i>Lower Confidence Levels – Appendix IV Constituents – April 2020</i>						
Antimony	0.006	mg/L	0.001	0.001	0.001	0.001	0.001	0.001476	0.001
Arsenic	0.0118 ^[2]	mg/L	<u>0.217</u>	<u>0.0389</u>	<u>0.01814</u>	<u>0.013</u>	<u>0.1103</u>	0.001	<u>0.01312</u>
Barium	2.00	mg/L	0.1047	0.04571	0.1813	0.08993	0.08355	0.04454	0.03496
Beryllium	0.004	mg/L	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cadmium	0.005	mg/L	0.0001	0.0001	0.0001	0.0001	0.0001	0.000054	0.0001
Chromium	0.1	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Cobalt	0.006	mg/L	0.0007009	0.000388	0.005967	0.0005	0.0005	0.0005	<u>0.01047</u>
Fluoride	4.00	mg/L	0.427	0.46	0.487	0.5	0.5	0.5	0.5
Lead	0.015	mg/L	0.0005	0.0005	0.001761	0.0007565	0.0005	0.0005	0.0005
Lithium	0.0541 ^[2]	mg/L	0.01	<u>0.07607</u>	0.01	0.01	0.01	0.01	<u>0.1066</u>
Mercury	0.002	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.10	mg/L	0.002	0.002	0.05455	0.09269	<u>0.8435</u>	<u>0.2711</u>	0.002
Radium 226+228	5.0	pCi/L	0.549	0.305	0.653	0.31	0.546	0.871	0.651
Selenium	0.05	mg/L	0.005	0.005	0.005	0.005	0.02332	<u>0.07187</u>	0.005
Thallium	0.002	mg/L	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Bold and underlined concentration indicates an SSL over the GWPS.

* indicates the lower bound of the range is the lower GWPS limit.

**The upper bound is the upper GWPS limit.

[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2).

[2] GWPS is established as the UPL when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2), or as the LPL when the background level is lower than the U.S. EPA MCL (i.e. pH).



Technical Memorandum

Date: Friday, January 29, 2021

To: Omaha Public Power District (OPPD)

From: HDR Engineering, Inc.

Subject: Summary of Statistical Analysis and Evaluation for SSLs
North Omaha Station Ash Landfill
Fall 2020 CCR Groundwater Monitoring Report

OPPD owns and operates a five-unit fuel-fired generating plant at the North Omaha Station (NOS), herein referenced as “Station” or “Site”, in Omaha, Nebraska. Units 1, 2, and 3 were retired from operation (converted to natural gas), while Units 4 and 5 are operating as coal-burning units through the year 2023. This Station has one active coal combustion residuals (CCR) landfill, known as the NOS Ash Landfill, which is subject to the United States Environmental Protection Agency’s (EPA’s) final CCR rule promulgated under U.S. Code of Federal Regulations (CFR), Title 40, Part 257 and Nebraska Department of Environment and Energy’s (NDEE) Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the statistical analysis conducted for the NOS Ash Landfill which consists of an unlined active CCR landfill of approximately 18 acres and a 1.4-acre undeveloped portion.

Groundwater sampling was completed as part of an assessment monitoring program for the NOS Ash Landfill in October 2020 (as specified in 40 CFR §257.95(d) and NDEE Title 132 Chapter 7 Section 005.06). The statistical analysis of groundwater data was performed in accordance with the methods described in the Groundwater Monitoring Statistical Certification for the North Omaha Station – NOS Ash Landfill, amended January 24, 2020. Sampling results used to update background threshold values (BTVs) were obtained during monitoring events performed between March 2016 and October 2019. Downgradient sampling results from the October 2020 assessment monitoring were used to evaluate for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over the groundwater protection standard (GWPS). The calculated BTVs and the evaluation for SSIs over background for the Appendix III constituents and Appendix IV constituents are provided in **Table C1**. The calculated lower confidence levels and the evaluation for SSLs over the GWPS for the Appendix IV constituents are provided in **Table C2**. One new SSL, cobalt at MW-6, was identified during the fall 2020 sampling event.



Table C1. Summary of Evaluation for SSIs over Background (October 2020)

Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17	
	BTV (UPL):	Unit	Assessment Monitoring Results in accordance with Title 132 Chapter 7 Section 005.06 – October 2020						
Appendix III Constituents									
Boron	0.2	mg/L	<u>2.16</u>	<u>0.664</u>	<u>0.557</u>	<u>2.24</u>	<u>2.19</u>	<u>3.44</u>	<u>0.709</u>
Calcium	195	mg/L	<u>265</u>	<u>424</u>	<u>319</u>	139	188	<u>199</u>	<u>269</u>
Chloride	275	mg/L	21.4	39.7	<u>409</u>	10.8	8.82	9.51	31.1
Fluoride**	1.84	mg/L	0.352J	<0.230	0.373J	<0.230	0.391J	<0.230	<0.230
pH	6.24-7.83*	SU	6.81	6.81	6.47	7.65	6.89	7.14	6.39
Sulfate	57.5	mg/L	<u>807</u>	<u>1200</u>	<u>346</u>	<u>560</u>	<u>821</u>	<u>495</u>	<u>684</u>
TDS	1190	mg/L	<u>1840</u>	<u>2380</u>	320	986	<u>1640</u>	978	<u>1600</u>
Appendix IV Constituents									
Antimony	0.001	mg/L	<0.000510	<0.000510	<0.000510	<0.000510	<0.000510	<u>0.00155</u>	<0.000510
Arsenic	0.0118	mg/L	<u>0.224</u>	<u>0.0681</u>	<u>0.0123</u>	0.00998	<u>0.167</u>	0.0023	<u>0.0206</u>
Barium	0.625	mg/L	0.100	0.0477	0.143	0.0851	0.111	0.0612	0.0323
Beryllium	0.001	mg/L	<0.000270	<0.000270	<0.000270	<0.000270	<0.000270	<0.000270	<0.000270
Cadmium	0.000537	mg/L	<0.0000490	<0.0000490	0.00025	0.0000660J	0.000464	0.0000710J	<0.0000490
Chromium	0.005	mg/L	<0.00110	<0.00110	<0.00110	<0.00110	<0.00110	0.00178J	<0.00110
Cobalt	0.00293	mg/L	0.000535	0.000350J	<u>0.0077</u>	0.000543	0.000661	<0.0000910	<u>0.00898</u>
Fluoride**	1.84	mg/L	0.352J	<0.230	0.373J	<0.230	0.391J	<0.230	<0.230
Lead	0.0114	mg/L	0.000455J	<0.000110	0.00159	0.000146J	<0.000110	0.000224J	<0.000110
Lithium	0.0541	mg/L	0.0392	<u>0.0848</u>	0.0461	0.0133	0.0256	0.00986J	<u>0.0948</u>
Mercury	0.00022	mg/L	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Molybdenum	0.002	mg/L	0.00112J	0.00110J	<u>0.0642</u>	<u>0.101</u>	<u>1.41</u>	<u>0.216</u>	<0.00440
Radium 226+228	3.77	pCi/L	0.846	0.722	0.827	0.216U	0.672	0.162U	0.702
Selenium	0.005	mg/L	<0.00100	<0.00100	<0.00100	<0.00100	<u>0.0408</u>	<u>0.054</u>	<0.00100
Thallium	0.001	mg/L	<0.000260	<0.000260	<0.000260	<0.000260	<0.000260	<0.000260	<0.000260

Bold and underlined concentration indicates an SSI over background.

* indicates the lower bound of the range is the lower prediction limit (LPL). The upper bound is the upper prediction limit (UPL).

** Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

"U" data qualifier (radium) indicates parameter was analyzed for but not detected above limiting criteria (such as, but not limited to: minimum detectable concentration; total uncertainty; reporting limit) as defined in the analytical laboratory data package.

"J" data qualifier indicates that value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.



Table C2. Summary of Evaluation for SSLs over GWPS (April 2020)

Well ID:		MW-2	MW-5	MW-6	MW-8	MW-13	MW-15	MW-17	
	GWPS ^[1]	Unit	<i>Lower Confidence Levels – Appendix IV Constituents – October 2020</i>						
Antimony	0.006	mg/L	0.001	0.001	0.001	0.001	0.001	0.001482	0.001
Arsenic	0.0118 ^[2]	mg/L	<u>0.219</u>	<u>0.04848</u>	<u>0.01735</u>	<u>0.01253</u>	<u>0.1139</u>	0.002	<u>0.01359</u>
Barium	2.00	mg/L	0.1043	0.04597	0.1755	0.08917	0.08505	0.0455	0.03474
Beryllium	0.004	mg/L	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cadmium	0.005	mg/L	0.0001	0.0001	0.0001	0.0001	0.0001	0.000071	0.0001
Chromium	0.1	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Cobalt	0.006	mg/L	0.0006766	0.00035	<u>0.006082</u>	0.0005	0.0005	0.0005	<u>0.01033</u>
Fluoride	4.00	mg/L	0.427	0.46	0.487	0.5	0.4652	0.5	0.5
Lead	0.015	mg/L	0.000455	0.0005	0.001739	0.0006145	0.0005	0.000224	0.0005
Lithium	0.0541 ^[2]	mg/L	0.01	<u>0.07706</u>	0.02707	0.01	0.01	0.00986	<u>0.1055</u>
Mercury	0.002	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Molybdenum	0.10	mg/L	0.00112	0.0011	0.05557	0.09447	<u>0.8653</u>	<u>0.266</u>	0.00264
Radium 226+228	5.0	pCi/L	0.422	0.305	0.7547	0.31	0.38	0.303	0.3845
Selenium	0.05	mg/L	0.005	0.005	0.005	0.005	0.02432	<u>0.0703</u>	0.005
Thallium	0.002	mg/L	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Bold and underlined concentration indicates an SSL over the GWPS.

* indicates the lower bound of the range is the lower GWPS limit.

**The upper bound is the upper GWPS limit.

[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2).

[2] GWPS is established as the UPL when the background level is higher than the U.S. EPA MCL or the GWPS specified in 40 CFR §257.95(h)(2), or as the LPL when the background level is lower than the U.S. EPA MCL (i.e. pH).