



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**FEDERAL CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and
CORRECTIVE ACTION REPORT - 2023**

**Midwest Generation, LLC
Will County
259 E. 135th Street
Romeoville, Illinois**

Prepared By: **KPRG and Associates, Inc.
14665 West Lisbon Road, Suite 1A
Brookfield, WI 53005**

January 31, 2024

TABLE OF CONTENTS

OVERVIEW 1

1.0 INTRODUCTION 3

 2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION 4

 2.1 Field Procedures 4

 2.2 Groundwater Flow Evaluation 4

3.0 ANALYTICAL DATA AND STATUS OF EVALUATIONS..... 6

 3.1 Sampling Summary 6

 3.2 Data Summary..... 6

 3.3 Current Status 6

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS 7

5.0 REFERENCES 8

FIGURES

1 – CCR Monitoring Wells Site Map

TABLES

- 1 – Groundwater Elevations
- 2 – Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate
- 3 – Groundwater Sampling Summary
- 4 – Detection Monitoring Appendix III Groundwater Analytical Results
- 5 – Assessment Monitoring Appendix IV Groundwater Analytical Results

ATTACHMENTS

- 1 – Groundwater Flow Contour Maps
- 2 – Analytical Data Packages

OVERVIEW

Groundwater monitoring requirements in accordance with the Federal Register, Environmental Protection Agency, 40 CFR Parts 257.94, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule dated April 17, 2015 (CCR Rule) and subsequent amendments, have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Will County Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for Ash Ponds 2 South (2S) and 3 South (3S). The CCR monitoring well network around these ponds consists of six monitoring wells (MW-05, MW-06, MW-09, MW-10, MW-11, and MW-12) as shown on Figure 1. Wells MW-05 and MW-06 are upgradient wells.

This overview of the 2023 groundwater monitoring period is provided in accordance with requirements under Section 257.90(e)(6). Each required item is discussed separately below.

- Section 257.90(e)(6)(i) – At the start of the current monitoring period, the subject CCR unit was operating under the assessment monitoring program outlined in Section 257.95.
- Section 257.90(e)(6)(ii) – At the end of the current monitoring period, the subject CCR unit is operating under assessment monitoring in accordance with Section 257.95. The shift to assessment monitoring occurred on March 28, 2022.
- Section 257.90(e)(6)(iii) – The following confirmed potential statistically significant increases (SSIs) above established background for Appendix III detection monitoring constituents were noted during this monitoring period:
 - MW-09 – chloride (1st through 4th quarter)
 - MW-10 – chloride and fluoride (2nd through 4th quarters)
 - MW-12 – chloride and total dissolved solids (TDS) (1st through 4th quarters)

Wells MW-05 and MW-06 are upgradient monitoring points.

- Section 257.90(e)(6)(iv) – The following Appendix IV constituents were detected above the established Groundwater Protection Standards (GWPSs):
 - Arsenic – MW-10 (1st through 3rd quarters), MW-11 (1st and 2nd quarters)
 - Molybdenum: MW-10 (1st, 2nd and 4th quarters)
 - Selenium – MW-05 (3rd and 4th quarters)

Well MW-05 is an upgradient monitoring point. Based on fourth quarter 2022 assessment verification sampling data for arsenic, which was received on January 9, 2023, an Assessment of Corrective Measures (ACM) for Ponds 2S and 3S was initiated on February 14, 2023 and completed on May 11, 2023. Public meetings were held on June 7th and 8th, 2023 presenting the results of the ACM.

- Section 257.90(e)(6)(v) – Remedy selection pursuant to Section 257.97 is in process; however, was not completed during this reporting period as Midwest Generation is awaiting Illinois Environmental Protection Agency (IEPA) review/approval of a State required Application for Initial Construction Permit (submitted to IEPA on August 1, 2023) under the State CCR Rule program prior to being able to proceed with final remedy selection and subsequent implementation.
- Section 257.90(e)(6)(vi) – As noted above, because Midwest Generation is waiting for an approved Construction Permit Application from IEPA, remedial activities pursuant to Section 257.98 were not initiated during this reporting period.

1.0 INTRODUCTION

In the 2023 reporting period, assessment monitoring requirements in accordance with the Federal Register, Environmental Protection Agency, 40 CFR Parts 257.95, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule dated April 17, 2015 (CCR Rule) have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Will County Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for Ash Ponds 2 South (2S) and 3 South (3S). The CCR monitoring well network around these ponds consists of six monitoring wells (MW-05, MW-06, MW-09, MW-10, MW-11, and MW-12) as shown on Figure 1. Wells MW-05 and MW-06 are upgradient wells.

This annual report covers the work performed relative to CCR groundwater monitoring for the calendar year 2023. It does not duplicate information or activities previously reported for prior years. It is prepared in accordance with Section 257.90(e)(1-6) and summarizes the sampling procedures used, provides an evaluation of groundwater flow conditions and summarizes the analytical data generated.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network around the Ash Ponds 2S and 3S at the Will County facility consists of six wells (MW-05, MW-06, MW-09, MW-10, MW-11, and MW-12) as shown on Figure 1. As part of sampling procedures, the integrity of all monitoring wells was inspected and water levels were obtained using an electronic water level meter (see summary of water level discussion below). Wells MW-05, MW-06, and MW-09 were found in good condition with locked protector casings and intact concrete surface seals. Wells MW-10, MW-11, and MW-12 are completed with flush-mounts at ground surface and were also in good condition.

All groundwater samples were collected using the low-flow sampling technique from dedicated pumps. The samples were not filtered prior to analysis to provide for total metals concentrations as opposed to dissolved metals concentrations. One duplicate sample was collected from a randomly selected monitoring well per sampling event for quality assurance purposes.

2.2 Groundwater Flow Evaluation

Water level data measurements were obtained from each well during each round of groundwater monitoring. A complete round of water levels was collected prior to initiating sampling, and the water level data are summarized in Table 1. The water levels were used to generate a groundwater flow map for each sampling event. These maps are provided in Attachment 1. A review of the maps indicates a consistent westerly groundwater flow direction. In accordance with general groundwater sampling requirements under Section 257.93(c), Table 2 provides a summary of the flow direction and an estimated rate of groundwater flow for each sampling event. The flow rate was calculated using the following equation:

$$V_s = \frac{Kdh}{n_e dl}, \text{ where}$$

V_s is seepage velocity (distance/time)

K is hydraulic conductivity (distance/time)

dh/dl is hydraulic gradient (unitless)

n_e is effective porosity (unitless)

The average hydraulic conductivity used in Table 2 was based on a re-evaluation of slug test data performed by Patrick Engineering as part of a hydrogeologic assessment dated

February 2011. The estimated effective porosity of the sandy materials (0.35) was obtained from literature (Applied Hydrogeology, Fetter, 1980).

3.0 ANALYTICAL DATA AND STATUS OF EVALUATIONS

3.1 Sampling Summary

The groundwater sampling summary from the 2023 reporting period is provided in Table 3, in accordance with 257.90 (e)(3).

3.2 Data Summary

The analytical data from the detection monitoring groundwater sampling for Appendix III parameters are provided in Table 4 which includes calculated Prediction Limits (PLs) established in the initial CCR Groundwater Monitoring Statistical Evaluation Summary dated January 2018 for data comparison purposes. The downgradient intrawell prediction limits were established for the three parameters which were part of the Alternate Source Demonstration (ASD) as recommended at the end of that evaluation. Table 5 includes a summary of Appendix IV sampling data generated as part of assessment monitoring which was initiated the 2nd quarter 2022. Table 4 includes calculated GWPSs for any Appendix IV constituents detected during the initial round of assessment monitoring data in accordance with Sections 257.95(h).

Quarterly groundwater sampling was completed during the 2023 reporting period. The full list of Appendix III and IV parameters were analyzed. The data summarized in Tables 4 and 5 include the sample dates and whether the specific well is considered upgradient or downgradient relative to groundwater flow and the regulated unit. The analytical data packages are provided in Attachment 2.

The following Appendix IV constituents were detected above the established Groundwater Protection Standards (GWPSs):

- Arsenic – MW-10 (1st through 3rd quarters), MW-11 (1st and 2nd quarters)
- Molybdenum: MW-10 (1st, 2nd and 4th quarters)
- Selenium – MW-05 (3rd and 4th quarters)

Well MW-05 is an upgradient monitoring point. It is noted that there have never been, and continue to be no detections of selenium in any of the downgradient wells above the GWPS.

3.3 Current Status

The site continues to be in assessment monitoring. Additional study is being performed for refining the definition of the extent of impacts in accordance with Section 257.95(g)(1), as necessary. An extent of impacts report will be issued under separate cover.

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The site continues to be in assessment monitoring. The assessment monitoring requirements in accordance with the CCR rule are being successfully met. The wells which showed concentrations of Appendix IV parameters above the established GWPSs were as follows:

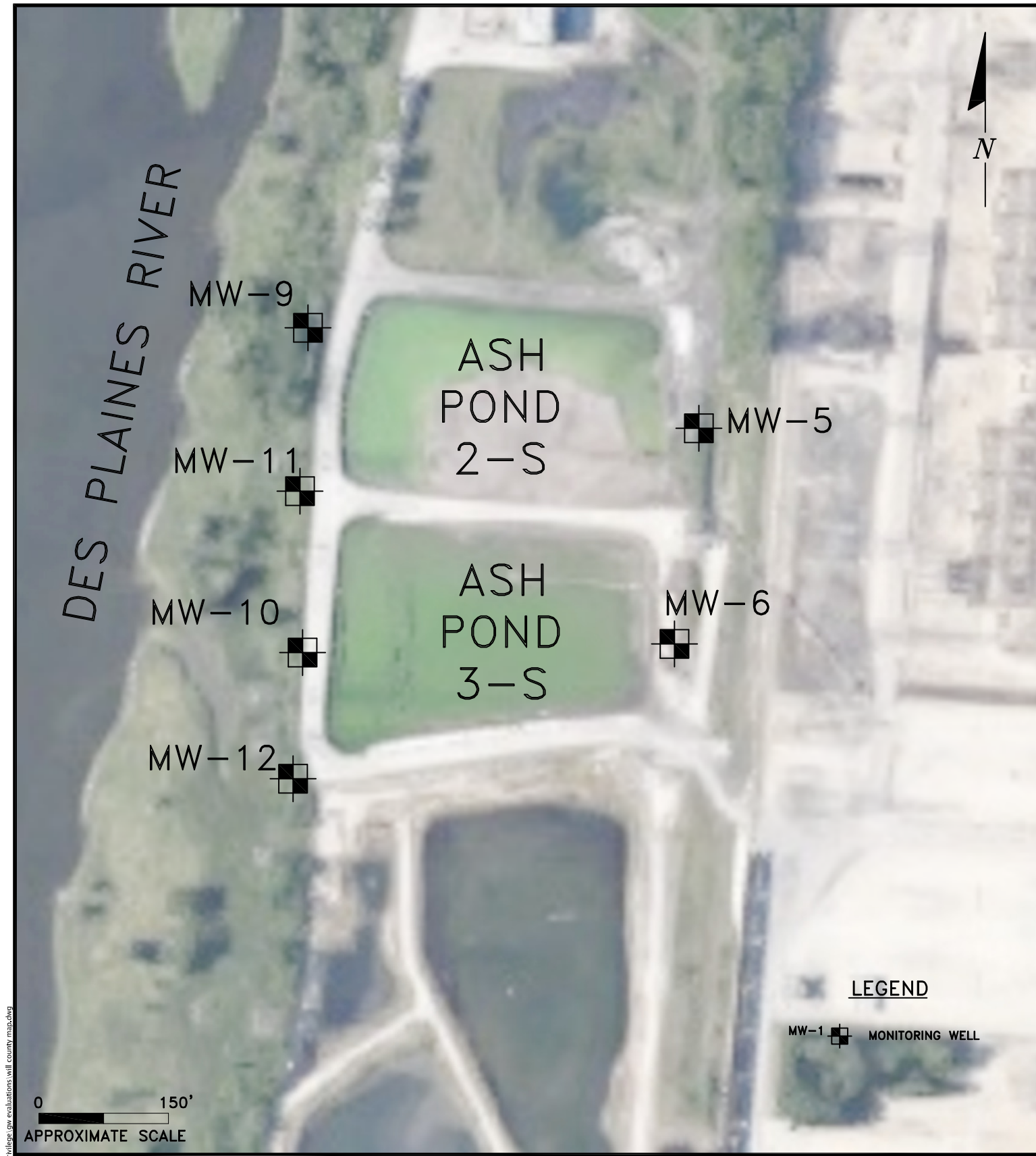
- Arsenic – MW-10 (1st through 3rd quarters), MW-11 (1st and 2nd quarters)
- Molybdenum: MW-10 (2nd and 4th quarters)
- Selenium – MW-05 (3rd and 4th quarters)

At this time, it is recommended to continue with assessment monitoring in accordance with Section 257.95 and formalize selection of remedy in accordance with Section 257.97 once the Initial Application for Initial Construction Permit submitted to IEPA on August 1, 2023, as required under the State CCR Rule program, is approved. It is noted that once the final remedy is selected, initiation of remedial activities must occur within 90-days in accordance with Section 257.98. A nature and extent of impacts evaluation is also currently ongoing in accordance with Section 257.95(g)(1). Results of the study will be provided under separate cover and placed into the facility's operating record.

5.0 REFERENCES

- Federal Register, Environmental Protection Agency, 40 CFR Parts 257 and 261, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule. Vol. 80, No. 74, Friday April 17, 2015.
- Patrick Engineering, Inc., Hydrogeologic Assessment Report – Will County Generating Station, Romeoville, IL. February 2011.
- KPRG and Associates, Inc., CCR Compliance Monitoring, Sampling and Analysis Plan, Midwest Generation, LLC Will County Generating Station. October 10, 2017.
- KPRG and Associates, Inc., CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation, LLC Will County Generating Station. October 10, 2017.
- KPRG and Associates, Inc., CCR Groundwater Monitoring Statistical Evaluation Summary - 2017, Midwest Generation, LLC Will County Generating Station. January 12, 2018.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2017, Midwest Generation, LLC Will County Generating Station. January 31, 2018.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2018, Midwest Generation, LLC Will County Generating Station. January 31, 2019.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2019, Midwest Generation, LLC Will County Generating Station. January 31, 2020.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2020, Midwest Generation, LLC Will County Generating Station. January 31, 2021.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2021, Midwest Generation, LLC Will County Generating Station. January 31, 2022.
- KPRG and Associates, Inc., CCR Compliance Annual Groundwater Monitoring and Corrective Action Report - 2022, Midwest Generation, LLC Will County Generating Station. January 31, 2023.
- C.W. Fetter, Jr., Applied Hydrogeology. Charles E. Merrill Publishing Co., 1980.

FIGURE



W:\projects\midwest_generation_attorney-client_privilege_gw_evaluations\will_county_map.dwg

ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G KPRG and Associates, inc.

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

14665 West Lisbon Road, Suite 2B Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

CCR MONITORING WELL SITE MAP

WILL COUNTY STATION
ROMEOVILLE, ILLINOIS

Scale: 1" = 150' | Date: December 27, 2017

KPRG Project No. 12313.3 | FIGURE 1

TABLES

Table 1. Groundwater Elevations - Midwest Generation, LLC, Will County Station, Romeoville, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-09	11/9/2015	592.87	11.38	581.49
	2/16/2016	592.87	11.03	581.84
	5/24/2016	592.87	11.35	581.52
	8/9/2016	592.87	11.43	581.44
	10/25/2016	592.87	10.74	582.13
	1/31/2017	592.87	11.15	581.72
	5/9/2017	592.87	10.45	582.42
	6/27/2017	592.87	11.66	581.21
	9/6/2017	592.87	11.95	580.92
	11/14/2017	592.87	11.54	581.33
	2/27/2018	592.87	10.13	582.74
	5/1/2018	592.87	11.39	581.48
	10/2/2018	592.87	11.91	580.96
	5/28/2019	592.87	9.65	583.22
	12/5/2019	592.87	11.17	581.70
	5/26/2020	592.87	9.67	583.20
	11/3/2020	592.87	11.90	580.97
	5/25/2021	592.87	12.02	580.85
	11/19/2021	592.87	11.84	581.03
	1/19/2022	592.87	12.04	580.83
	2/10/2022	592.87	12.12	580.75
	3/14/2022	592.87	11.48	581.39
	4/6/2022	592.87	10.46	582.41
	5/23/2022	592.87	11.22	581.65
	6/29/2022	592.87	12.20	580.67
	7/19/2022	592.87	11.86	581.01
	8/23/2022	592.87	11.59	581.28
	9/20/2022	592.87	11.39	581.48
	10/13/2022	592.87	11.97	580.90
	11/15/2022	592.87	12.25	580.62
	12/19/2022	592.87	11.34	581.53
	1/26/2023	592.87	11.59	581.28
	2/21/2023	592.87	11.28	581.59
	3/15/2023	592.87	11.07	581.80
	4/25/2023	592.87	11.80	581.07
	5/19/2023	592.87	12.16	580.71
	6/8/2023	592.87	12.79	580.08
	7/25/2023	592.87	11.89	580.98
	8/29/2023	592.87	12.08	580.79
	9/21/2023	592.87	11.35	581.52
10/19/2023	592.87	11.45	581.42	
11/14/2023	592.87	12.23	580.64	
12/7/2023	592.87	11.56	581.31	
MW-10	11/9/2015	590.96	10.65	580.31
	2/16/2016	590.96	10.43	580.53
	5/24/2016	590.96	10.72	580.24
	8/9/2016	590.96	11.12	579.84
	10/25/2016	590.96	10.73	580.23
	1/31/2017	590.96	10.37	580.59
	5/9/2017	590.96	9.78	581.18
	6/27/2017	590.96	11.09	579.87
	9/6/2017	590.96	11.20	579.76
	11/15/2017	590.96	10.76	580.20
	2/27/2018	590.96	9.54	581.42
	5/1/2018	590.96	10.64	580.32
	10/2/2018	590.96	11.12	579.84
	5/28/2019	590.96	9.02	581.94
	12/5/2019	590.96	10.28	580.68
	5/27/2020	590.96	8.89	582.07
	11/3/2020	590.96	10.68	580.28
	5/24/2021	590.96	11.06	579.90
	11/19/2021	590.96	10.72	580.24
	1/19/2022	590.96	11.00	579.96
	2/10/2022	590.96	10.95	580.01
	3/14/2022	590.96	10.57	580.39
	4/6/2022	590.96	9.74	581.22
	5/23/2022	590.96	8.99	581.97
	6/29/2022	590.96	11.50	579.46
	7/19/2022	590.96	11.03	579.93
	8/23/2022	590.96	10.86	580.10
	9/20/2022	590.96	10.35	580.61
	10/13/2022	590.96	11.06	579.90
	11/15/2022	590.96	11.15	579.81
	12/19/2022	590.96	10.02	580.94
	1/26/2023	590.96	10.50	580.46
	2/21/2023	590.96	10.26	580.70
	3/15/2023	590.96	10.06	580.90
	4/25/2023	590.96	10.77	580.19
	5/19/2023	590.96	11.14	579.82
	6/8/2023	590.96	11.77	579.19
	7/25/2023	590.96	11.02	579.94
	8/29/2023	590.96	11.13	579.83
	9/21/2023	590.96	10.34	580.62
10/19/2023	590.96	10.33	580.63	
11/14/2023	590.96	11.11	579.85	
12/7/2023	590.96	10.35	580.61	

Table 1. Groundwater Elevations - Midwest Generation, LLC, Will County Station, Romeoville, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-11	11/9/2015	590.69	10.28	580.41
	2/16/2016	590.69	10.15	580.54
	5/24/2016	590.69	10.25	580.44
	8/9/2016	590.69	10.66	580.03
	10/25/2016	590.69	10.42	580.27
	1/31/2017	590.69	9.91	580.78
	5/9/2017	590.69	9.21	581.48
	6/27/2017	590.69	10.48	580.21
	9/6/2017	590.69	10.73	579.96
	11/15/2017	590.69	10.43	580.26
	5/1/2018	590.69	10.18	580.51
	10/2/2018	590.69	10.59	580.10
	5/28/2019	590.69	8.32	582.37
	12/5/2019	590.69	9.85	580.84
	5/26/2020	590.69	8.09	582.60
	11/3/2020	590.69	10.58	580.11
	5/24/2021	590.69	10.76	579.93
	8/23/2021	590.69	10.75	579.94
	11/19/2021	590.69	10.60	580.09
	1/19/2022	590.69	10.67	580.02
	2/10/2022	590.69	11.21	579.48
	3/14/2022	590.69	10.24	580.45
	4/6/2022	590.69	9.14	581.55
	5/23/2022	590.69	9.72	580.97
	6/29/2022	590.69	11.00	579.69
	7/19/2022	590.69	10.44	580.25
	8/23/2022	590.69	10.35	580.34
	9/20/2022	590.69	9.82	580.87
	10/13/2022	590.69	10.44	580.25
	11/15/2022	590.69	10.92	579.77
	12/19/2022	590.69	9.77	580.92
	1/26/2023	590.69	10.68	580.01
2/21/2023	590.69	9.82	580.87	
3/15/2023	590.69	9.54	581.15	
4/25/2023	590.69	10.39	580.30	
5/19/2023	590.69	10.72	579.97	
6/8/2023	590.69	11.33	579.36	
7/25/2023	590.69	10.52	580.17	
8/29/2023	590.69	10.66	580.03	
9/21/2023	590.69	9.86	580.83	
10/19/2023	590.69	9.91	580.78	
11/14/2023	590.69	10.94	579.75	
12/7/2023	590.69	10.11	580.58	
MW-12	11/9/2015	590.81	10.15	580.66
	2/16/2016	590.81	10.24	580.57
	5/24/2016	590.81	10.31	580.50
	8/9/2016	590.81	10.73	580.08
	10/25/2016	590.81	10.45	580.36
	1/31/2017	590.81	10.16	580.65
	5/9/2017	590.81	9.88	580.93
	6/27/2017	590.81	10.62	580.19
	9/6/2017	590.81	10.61	580.20
	11/15/2017	590.81	10.20	580.61
	5/1/2018	590.81	10.30	580.51
	10/2/2018	590.81	10.77	580.04
	5/28/2019	590.81	9.17	581.64
	12/5/2019	590.81	10.15	580.66
	5/22/2020	590.81	9.88	580.93
	11/3/2020	590.81	10.49	580.32
	5/24/2021	590.81	10.65	580.16
	8/23/2021	590.81	11.05	579.76
	11/19/2021	590.81	10.48	580.33
	1/19/2022	590.81	10.63	580.18
	2/10/2022	590.81	10.65	580.16
	3/14/2022	590.81	10.24	580.57
	4/6/2022	590.81	9.83	580.98
	5/23/2022	590.81	10.18	580.63
	6/29/2022	590.81	11.15	579.66
	7/19/2022	590.81	10.62	580.19
	8/23/2022	590.81	10.34	580.47
	9/20/2022	590.81	10.22	580.59
	10/13/2022	590.81	10.78	580.03
	11/15/2022	590.81	10.77	580.04
	12/19/2022	590.81	9.97	580.84
	1/26/2023	590.81	10.18	580.63
2/21/2023	590.81	10.12	580.69	
3/15/2023	590.81	10.03	580.78	
4/24/2023	590.81	10.37	580.44	
5/19/2023	590.81	10.64	580.17	
6/8/2023	590.81	11.46	579.35	
7/25/2023	590.81	10.57	580.24	
8/29/2023	590.81	10.77	580.04	
9/21/2023	590.81	10.15	580.66	
10/19/2023	590.81	10.17	580.64	
11/14/2023	590.81	10.67	580.14	
12/7/2023	590.81	10.14	580.67	

MSL - Mean Sea Level
TOC - Top of Casing

Table 1. Groundwater Elevations - Midwest Generation, LLC, Will County Station, Romeoville, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-05	11/9/2015	592.87	9.99	582.88
	2/16/2016	592.87	9.91	582.96
	5/24/2016	592.87	9.94	582.93
	8/9/2016	592.87	10.09	582.78
	10/25/2016	592.87	9.02	583.85
	1/31/2017	592.87	9.81	583.06
	5/9/2017	592.87	9.63	583.24
	6/27/2017	592.87	10.26	582.61
	9/6/2017	592.87	10.48	582.39
	11/16/2017	592.87	10.02	582.85
	2/28/2018	592.87	9.48	583.39
	5/1/2018	592.87	9.94	582.93
	10/2/2018	592.87	10.64	582.23
	5/28/2019	592.87	8.73	584.14
	12/5/2019	592.87	9.92	582.95
	5/22/2020	592.87	9.39	583.48
	11/3/2020	592.87	10.48	582.39
	5/24/2021	592.87	10.21	582.66
	11/19/2021	592.87	10.25	582.62
	1/19/2022	592.87	10.54	582.33
	2/10/2022	592.87	10.85	582.02
	3/14/2022	592.87	9.90	582.97
	4/6/2022	592.87	9.59	583.28
	5/23/2022	592.87	10.06	582.81
	6/29/2022	592.87	10.68	582.19
	7/19/2022	592.87	10.40	582.47
	8/23/2022	592.87	10.26	582.61
	9/20/2022	592.87	10.17	582.70
	10/13/2022	592.87	11.09	581.78
	11/15/2022	592.87	10.66	582.21
	12/19/2022	592.87	9.96	582.91
	1/26/2023	592.87	10.03	582.84
	2/21/2023	592.87	9.88	582.99
	3/15/2023	592.87	9.92	582.95
	4/25/2023	592.87	10.29	582.58
	5/19/2023	592.87	10.68	582.19
	6/8/2023	592.87	11.50	581.37
	7/25/2023	592.87	10.19	582.68
	8/29/2023	592.87	10.47	582.40
	9/21/2023	592.87	9.97	582.90
	10/19/2023	592.87	10.11	582.76
	11/14/2023	592.87	10.51	582.36
	12/7/2023	592.87	10.03	582.84
	MW-06	11/9/2015	593.18	9.96
2/16/2016		593.18	11.37	581.81
5/24/2016		593.18	11.37	581.81
8/9/2016		593.18	11.54	581.64
10/25/2016		593.18	11.37	581.81
1/31/2017		593.18	11.24	581.94
5/9/2017		593.18	10.86	582.32
6/27/2017		593.18	11.55	581.63
9/6/2017		593.18	11.77	581.41
11/16/2017		593.18	11.49	581.69
2/28/2018		593.18	10.91	582.27
5/1/2018		593.18	11.47	581.71
10/2/2018		593.18	11.89	581.29
5/28/2019		593.18	10.18	583.00
12/5/2019		593.18	11.51	581.67
5/22/2020		593.18	10.55	582.63
11/3/2020		593.18	11.86	581.32
5/24/2021		593.18	11.85	581.33
11/19/2021		593.18	11.85	581.33
1/19/2022		593.18	12.07	581.11
2/10/2022		593.18	12.20	580.98
3/14/2022		593.18	11.61	581.57
4/6/2022		593.18	11.07	582.11
5/23/2022		593.18	11.62	581.56
6/29/2022		593.18	12.21	580.97
7/19/2022		593.18	11.88	581.30
8/23/2022		593.18	12.57	580.61
9/20/2022		593.18	11.78	581.40
10/13/2022		593.18	12.37	580.81
11/15/2022		593.18	12.14	581.04
12/19/2022		593.18	11.53	581.65
1/26/2023		593.18	11.66	581.52
2/21/2023		593.18	11.57	581.61
3/15/2023		593.18	11.61	581.57
4/25/2023		593.18	11.98	581.20
5/19/2023		593.18	12.21	580.97
6/8/2023		593.18	12.83	580.35
7/25/2023		593.18	11.96	581.22
8/29/2023		593.18	12.06	581.12
9/21/2023		593.18	11.58	581.60
10/19/2023		593.18	11.72	581.46
11/14/2023		593.18	12.13	581.05
12/7/2023		593.18	11.89	581.59

Table 2. Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate - Will County Generation Station.

DATE	Groundwater Flow Direction	K _{avg} (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
6/29/2022	West	2.32E-04	0.0047	0.2	0.47
8/23/2022	West	2.32E-04	0.0039	0.2	0.39
11/15/2022	West	2.32E-04	0.0043	0.2	0.43
2/26/2023	West	2.315E-04	0.0036	0.2	0.36
4/26/2023	West	2.315E-04	0.0046	0.2	0.46
7/26/2023	West	2.315E-04	0.0060	0.2	0.60
10/24/2023	West	2.315E-04	0.0055	0.2	0.55

* K_{avg} - K values from re-evaluation of slug test data as part of groundwater modeling in support of Application for Construction Permit per Illinois State CCR Rule.

** - Porosity estimate from Groundwater, Freeze and Cherry, 1979.

Table 3. CCR Groundwater Sample Collection Summary for 2023 - Will County Generating Station

Well ID	Number of Groundwater Sampling Events	Dates Groundwater Sampling Events	Detection Monitoring (D) versus Assessment Monitoring (A)
MW-05 (Upgradient)	4	2/23/2023	A
		4/26/2023	A
		7/26/2023	A
		10/24/2023	A
MW-06 (Upgradient)	4	2/23/2023	A
		4/26/2023	A
		7/26/2023	A
		10/24/2023	A
MW-09 (Downgradient)	4	2/23/2023	A
		4/26/2023	A
		7/26/2023	A
		10/24/2023	A
MW-10 (Downgradient)	4	2/23/2023	A
		4/26/2023	A
		7/26/2023	A
		10/24/2023	A
MW-11 (Downgradient)	4	2/21/2023	A
		4/25/2023	A
		7/25/2023	A
		10/19/2023	A
MW-12 (Downgradient)	4	2/21/2023	A
		4/25/2023	A
		7/25/2023	A
		10/19/2023	A

Table 4. Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Ponds 2S/3S Will County Station, Romeoville, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-05 up-gradient	11/11/2015	6.1	220	110	0.31	7.24	770	1,900
	2/18/2016	4.4	230	120	0.31	6.99	730	1,600
	5/26/2016	3.7	170	110	0.33	6.73	670	1,300
	8/10/2016	3.6	67	120	0.72	8.62	480	970
	10/26/2016	3.6	44	120	0.70	9.08	410	920
	2/1/2017	4.6	250	48	0.35	6.81	530	1,600
	5/11/2017	4.0	140	85	0.31	7.86	610	1,200
	6/27/2017	3.8	83	99	0.53	7.95	500	1,000
	Pred. Limit*	6.65	359	148	0.72	9.93-5.39	923	2,286
	9/8/2017	4.8	89	78	0.52	9.40	490	1,000
	11/16/2017	4.8	180	52	0.45	6.70	650	1,500
	5/2/2018	3.6	200	32	0.39	7.23	510	1,300
	10/3/2018	4.9	150	55	0.48	7.07	430	1,200
	5/29/2019	4.1	61	91	0.59	9.10	380	870
	12/6/2019	4.9	170	31	0.41	6.95	440	1,200
	5/22/2020	4.5	52	70	0.59	7.39	300	870
	11/4/2020	5.0	130	29	0.38	7.06	410	1,100
	5/24/2021	4.7	120	28	0.53	7.07	430	1,000
	11/23/2021	5.5	140	22	0.44	6.80	370	1,100
	2/24/2022	4.9	210	25	0.39	6.73	660	1,400
	6/16/2022	5.1	130	41	0.34	7.05	510	1,100
	8/25/2022	6.6	120	20	0.40	6.69	300	940
	11/15/2022	8.9	150	9.8	0.72	6.78	310	930
2/23/2023	6.2	120	26	0.43	6.83	430	1,100	
4/26/2023	4.9	210	33	0.47	6.73	670	1,600	
7/26/2023	4.8	180	18	0.50	6.91	440	1,200	
10/24/2023	6.8	140	8.6	0.52	6.68	210	850	
12/7/2023 R	5.7	NS	NS	NS	NS	NS	NS	
MW-06 up-gradient	11/10/2015	3.0	52	100	0.55	8.63	300	660
	2/18/2016	2.5	74	150	0.47	8.58	280	650
	5/26/2016	2.7	86	92	0.44	7.79	350	800
	8/11/2016	3.6	110	58	0.35	7.74	330	840
	10/26/2016	3.8	86	74	0.40	8.16	220	800
	2/1/2017	3.4	70	83	0.41	7.88	260	700
	5/11/2017	3.0	75	84	0.28	8.68	320	570
	6/27/2017	3.1	65	74	0.38	8.15	330	710
	Pred. Limit*	4.29	122	162	0.62	9.21-7.19	415	956
	9/7/2017	3.5	75	67	0.40	8.20	300	740
	11/16/2017	3.9	88	54	0.39	7.59	280	810
	5/3/2018	3.0	91	52	0.26	6.91	530	750
	7/25/2018 R	NA	NA	NA	NA	7.47	280	NA
	10/3/2018	3.5	93	44	0.31	7.83	240	720
	5/29/2019	4.3	120	38	0.21	7.51	350	1,000
	7/3/2019 R	3.2	NA	NA	NA	NA	NA	740
	12/6/2019	4.2	98	31	0.33	7.91	210	740
	5/22/2020	3.4	98	56	0.31	7.47	180	710
	11/3/2020	3.3	100	43	0.36	7.29	170	700
	5/24/2021	2.6	99	46	0.33	7.65	160	610
	11/23/2021	2.6	85	43	0.37	7.48	150	720
	2/22/2022	2.8	130	35	0.33	7.29	260	940
	6/14/2022	2.5	110	22	0.35	7.06	210	610
8/25/2022	2.7	110	20	0.42	7.31	170	750	
11/16/2022	3.2	110	19	0.47	7.41	160	600	
2/23/2023	3.0	110	17	0.35	7.54	190	680	
4/26/2023	2.0	100	15	0.36	7.42	150	610	
7/26/2023	2.5	110	16	0.42	7.60	170	610	
10/24/2023	2.5	100	13	0.40	7.34	140	580	
MW-09 down-gradient	11/11/2015	1.9	56	190	0.55	9.12	460	750
	2/17/2016	1.8	47	160	0.55	9.10	250	600
	5/24/2016	1.6	48	180	0.51	8.79	240	640
	8/9/2016	2.2	53	140	0.48	8.35	280	750
	10/26/2016	2.2	33	130	0.81	9.16	230	660
	1/31/2017	2.0	61	250	0.57	8.59	180	710
	5/9/2017	1.8	66	340	0.38	8.58	250	900
	6/27/2017	1.9	64	330	0.51	7.76	240	940
	Pred. Limit	4.26	275**	149**	0.72**	9.39-6.48**	413	950
	9/6/2017	1.8	59	310	0.51	8.98	240	890
	11/14/2017	2.6	160	270	0.51	8.1	290	910
	5/1/2018	1.7	49	200	0.52	7.81	430	820
	7/25/2018 R	NA	NA	NA	NA	NA	320	NA
	10/2/2018	2.1	49	170	0.55	8.09	270	820
	5/29/2019	1.5	48	280	0.29	8.90	150	750
	12/6/2019	2.0	38	140	0.46	8.65	160	630
	5/26/2020	1.3	55	320	0.32	8.66	140	720
	11/3/2020	2.0	43	240	0.55	8.64	180	750
	5/26/2021	1.6	67	360	0.39	8.74	180	900
	11/23/2021	1.1	30	290	0.47	8.73	210	900
	2/22/2022	1.5	49	250	0.40	8.65	160	900
	6/15/2022	1.9	43	230	0.48	8.35	180	730
	8/25/2022	2.1	38	210	0.58	8.68	190	770
11/16/2022	2.3	37	210	0.79	8.82	160	690	
2/23/2023	2	38	190	0.53	9.04	210	680	
4/26/2023	1.8	38	190	0.48	8.82	220	750	
7/26/2023	2.0	44	190	0.49	8.83	250	720	
10/24/2023	2.0	41	200	0.52	8.68	200	770	

Notes: All units are in mg/L, except pH is in standard units.

* - Intra-well Prediction Limit. All others are interwell comparisons.

** - Based on pooled background from MW-5/MW-6. All others based on MW-6 as background.

Italics Date - First round of Detection Monitoring and resample after statistical background establishment.

NC - Not calculated.

BOLD - Potential statistically significant increase relative to interwell Prediction Limit.

NA - Not analyzed. No confirmation resample required.

R - Resample

FI - MS and/or MSD Recovery outside of limits.

Table 4. Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Ponds 2S/3S Will County Station, Romeoville, IL.

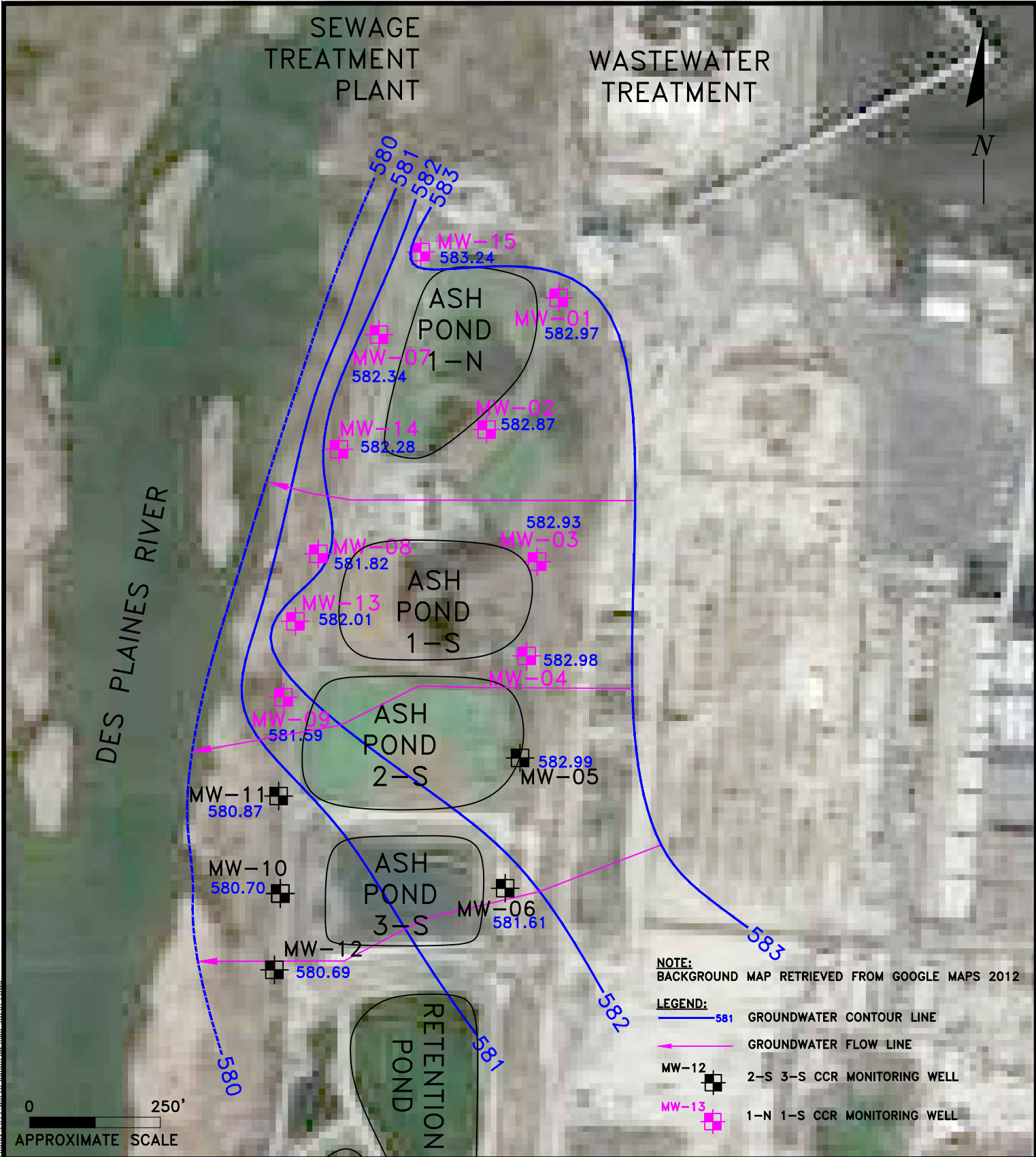
Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-10 down-gradient	11/10/2015	3.9	140	140	0.77	7.34	310	980
	2/16/2016	3.6	150	240	0.79	7.29	290	950
	5/25/2016	3.6	120	140	0.83	7.26	260	1,000
	8/10/2016	4.3	150	120	0.78	7.22	230	970
	10/26/2016	3.0	160	75	0.52	7.30	220	1,000
	2/2/2017	3.7	180	81	0.54	7.16	160	930
	5/10/2017	3.0	150	100	0.44	7.83	340	860
	6/27/2017	2.8	130	110	0.67	7.49	250	930
	Prod. Limit	4.26	275**	149**	0.72**	9.39-6.48**	413	950
	9/7/2017	2.8	120	120	0.77	7.37	290	920
	11/15/2017	4.1	140	120	0.77	7.10	270	1,000
	5/1/2018	3.2	150	130	0.65	7.31	280	990
	10/3/2018	2.5	110	140	0.89	7.60	200	860
	5/29/2019	2.8	100	140	0.82	7.53	260	860
	12/5/2019	3.7	120	110	0.93	7.21	190	940
	5/27/2020	2.3	100	170	0.90	7.39	280	850
	11/3/2020	3.7	130	140	0.87	7.02	180	920
	5/25/2021	3.0	160	130	0.62	7.16	160	910
	11/23/2021	2.7	110	130	0.71	7.07	230	990
	2/24/2022	2.6	130	120	0.53	7.02	170	840
6/14/2022	2.9	100	140	0.86	6.99	280	790	
8/25/2022	2.6	130	140	0.99	7.47	280	910	
11/16/2022	4.4	130	160	0.94	7.15	220	910	
2/23/2023	3.7	140	140	0.71	7.11	250	930	
4/26/2023	2.8	99	150	0.94	7.23	250	900	
7/26/2023	3.7	120	150	0.81	7.37	260	910	
10/24/2023	2.9	99	160	0.89	7.19	230	920	
MW-11 down-gradient	11/10/2015	2.6	120	89	0.61	7.60	180	620
	2/16/2016	3.0	100	88	0.68	7.47	170	640
	5/25/2016	2.8	82	98	0.75	7.43	170	640
	8/10/2016	3.1	96	86	0.72	7.57	150	660
	10/26/2016	2.5	110	67	0.53	7.82	120	630
	2/1/2017	3.9	110	72	0.65	7.54	110	600
	5/10/2017	3.1	95	84	0.46	8.37	170	590
	6/27/2017	2.8	87	90	0.59	7.57	150	680
	Prod. Limit	4.26	275**	149**	0.72**	9.39-6.48**	413	950
	9/7/2017	2.8	90	94	0.58	7.40	150	730
	11/15/2017	2.9	96	100	0.65	7.41	160	750
	5/3/2018	3.8	73	110	0.69	6.74	190	670
	10/3/2018	3.1	78	110	0.66	7.65	120	680
	5/29/2019	2.2	86	110	0.49	7.55	120	610
	12/5/2019	2.5	100	80	0.55	7.26	91	600
	5/26/2020	2.3	89	100	0.54	7.4	90	540
	11/3/2020	4.2	85	140	0.72	7.17	68	710
	5/25/2021	3.8	94	130	0.74	7.68	57	660
	11/23/2021	2.0	130	150	0.48	6.94	94	810
	12/22/2021 R	NA	NA	150	NA	7.03	NA	NA
2/23/2022	1.8	130	150	0.38	6.94	91	760	
6/13/2022	2.8	120	140	0.40	7.22	97	700	
8/23/2022	2.5	110	140	0.53	6.94	160	740	
11/16/2022	3.8	120	130	0.71	7.34	66	700	
2/21/2023	2.2	120	130	0.45	7.08	81	710	
4/25/2023	2.8	110	130	0.53	7.14	75	730	
7/25/2023	2.2	120	120	0.46	7.12	80	740	
10/19/2023	3.0	120	120	0.55	7.12	74	770	
MW-12 down-gradient	11/10/2015	2.3	150	160	0.59	7.44	290	1,000
	2/16/2016	1.8	130	140	0.52	7.38	220	850
	5/25/2016	1.9	130	150	0.54	7.23	250	890
	8/10/2016	2.4	170	140	0.49	7.20	280	1,000
	10/26/2016	2.6	140	120	0.49	7.44	220	980
	2/1/2017	2.0	160	120	0.48	7.30	150	900
	5/10/2017	2.3	200	240	0.30	7.65	260	1,300
	6/27/2017	2.4	180	280	0.44	7.31	260	1,300
	Prod. Limit	4.26	275**	149**	0.72**	9.39-6.48**	413	950
	9/6/2017	2.6	190	270	0.49	7.26	260	1,400
	11/15/2017	1.7	55	200	0.47	6.90	250	1,200
	5/3/2018	1.8	140	170	0.47	6.60	170	960
	10/2/2018	FI 2.2	150	160	0.49	7.30	170	1,100
	5/29/2019	1.9	140	140	0.42	7.23	190	930
	12/5/2019	2.1	140	71	0.53	7.02	110	820
	5/22/2020	1.9	180	120	0.4	6.95	140	1,100
	11/3/2020	2.2	160	190	0.52	7.27	160	1,000
	5/25/2021	1.8	140	170	0.49	7.37	180	930
	11/23/2021	2.3	180	210	0.44	7.01	180	1,200
	2/24/2022	1.7	150	150	0.4	7.06	150	1,000
6/13/2022	1.9	160	210	0.45	7.03	170	1,000	
8/23/2022	1.9	150	170	0.37	6.62	160	1,000	
11/16/2022	2.3	160	180	0.97	7.34	180	1,000	
2/21/2023	1.6	150	150	0.41	7.15	180	980	
4/25/2023	1.8	150	170	0.42	6.91	180	980	
7/25/2023	2.1	180	180	0.44	6.96	190	1,100	
10/19/2023	2.2	180	180	0.47	6.99	170	1,100	

Notes: All units are in mg/L, except pH is in standard units. **BOLD** - Potential statistically significant increase relative to interwell Prediction Limit.
 * - Intra-well Prediction Limit. All others are interwell comparisons.
 ** - Based on pooled background from MW-5/MW-6. All others based on MW-6 as background.
 Italics Date - First round of Detection Monitoring and re-sample after statistical background establishment. NA - Not analyzed. No confirmation re-sample required.
 R - Re-sample.
 FI - MS and/or MSD Recovery outside of limits.

Table 5. Appendix IV Groundwater Analytical Results - Midwest Generation, LLC, Ponds 2S/3S Will County Station, Romeoville, IL

Well	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium
MW-10 down-gradient	11/10/2015	< 0.003	0.015	0.096	< 0.001	< 0.0005	< 0.005	< 0.001	0.77	< 0.0005	0.018	< 0.0002	0.068	1.341	< 0.0025	< 0.002
	2/16/2016	< 0.003	0.014	0.098	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.79	< 0.0005	0.021	< 0.0002	0.075	0.952	< 0.0025	< 0.002
	5/25/2016	< 0.003	0.034	0.096	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.83	0.00055	0.016	< 0.0002	0.065	0.51	< 0.0025	< 0.002
	8/10/2016	< 0.003	0.017	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.78	< 0.0005	0.021	< 0.0002	0.082	0.864	< 0.0025	< 0.002
	10/26/2016	< 0.003	0.022	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.52	< 0.0005	0.021	< 0.0002	0.030	0.458	< 0.0025	< 0.002
	2/2/2017	< 0.003	0.05	0.14	* < 0.001	< 0.0005	< 0.005	< 0.001	0.54	0.0013	0.02	^ < 0.0002	0.031	< 0.464	< 0.0025	< 0.002
	5/10/2017	< 0.003	0.02	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.44	< 0.0005	0.015	< 0.0002	0.066	0.882	< 0.0025	< 0.002
	6/27/2017	< 0.003	0.0072	0.096	< 0.001	< 0.0005	< 0.005	< 0.001	0.67	< 0.0005	0.017	< 0.0002	0.080	0.953	< 0.0025	< 0.002
	9/7/2017	< 0.003	0.0076	0.086	< 0.001	< 0.0005	< 0.005	< 0.001	0.77	< 0.0005	0.014	0.00058	0.096	0.921	< 0.0025	< 0.002
	11/15/2017	< 0.003	0.015	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.77	< 0.0005	0.021	< 0.0002	0.071	0.893	< 0.0025	< 0.002
	5/1/2018	NA	NA	NA	NA	NA	NA	NA	0.65	NA	NA	NA	NA	NA	NA	NA
	5/25/2021	< 0.003	0.018	0.18	^1+ < 0.001	< 0.0005	< 0.005	0.0013	0.62	0.0054	0.02	< 0.0002	0.036	< 1.14	< 0.0025	< 0.002
	11/23/2021	< 0.003	0.012	0.091	^1+ < 0.001	< 0.0005	< 0.005	< 0.001	0.71	0.0011	0.013	< 0.0002	0.048	2.22	< 0.0025	< 0.002
	2/24/2022	< 0.003	0.0072	0.1	^1+ < 0.001	< 0.0005	< 0.005	0.0012	0.53	0.001	0.014	< 0.0002	0.043	0.77	< 0.0025	< 0.002
	6/14/2022	< 0.003	0.008	0.081	< 0.001	< 0.0005	< 0.005	< 0.001	0.86	< 0.0005	0.015	< 0.0002	0.12	1.55	< 0.0025	< 0.002
	GWPS	NS	0.01	2.0	0.004	NS	NS	0.006	4.0	0.015	0.04	NS	0.1	5.0	0.056	NS
	8/25/2022	< 0.003	0.019	0.11	< 0.001	^1+ < 0.0005	0.0053	0.001	0.99	0.0077	0.015	< 0.0002	0.12	1.20	< 0.0025	< 0.002
	9/28/2022 (R)	NA	0.0088	NA	NA	NA	NA	NA	0.65	0.00093	NA	NA	NA	NA	NA	NA
11/16/2022	< 0.003	0.015	0.1	^+ < 0.001	< 0.0005	< 0.005	< 0.001	0.94	0.002	0.018	< 0.0002	0.097	2.74	< 0.0025	< 0.002	
12/29/2022 (R)	NS	0.071	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2/23/2023	< 0.003	0.015	0.12	^1+ ^+ < 0.001	< 0.0005	< 0.005	< 0.001	0.71	0.0008	0.016	< 0.0002	0.073	1.35	< 0.0025	< 0.002	
4/26/2023	< 0.0030	0.013	0.079	< 0.0010	< 0.00050	< 0.0050	< 0.0010	0.94	0.00067	0.015	< 0.00020	0.12	1.37	< 0.0025	< 0.0020	
6/8/2023(R)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14	NA	NA	NA	
7/26/2023	< 0.0030	0.017	0.0990	< 0.0010	< 0.0005	< 0.0050	< 0.0010	0.8100	< 0.0005	0.0170	< 0.0002	0.097	0.9590	< 0.0025	< 0.0020	
10/24/2023	< 0.0030	0.0087	0.083	< 0.0010	< 0.00050	< 0.0050	< 0.0010	0.89	< 0.00050	0.015	< 0.00020	0.12	1.30	0.0025	0.0020	
MW-11 down-gradient	11/10/2015	< 0.003	0.007	0.098	< 0.001	< 0.0005	< 0.005	< 0.001	0.61	0.00064	< 0.01	< 0.0002	0.0600	0.736	< 0.0025	< 0.002
	2/16/2016	< 0.003	0.0059	0.11	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.68	< 0.0005	0.012	< 0.0002	0.078	1.14	< 0.0025	< 0.002
	5/25/2016	< 0.003	0.0073	0.093	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.75	< 0.0005	< 0.01	< 0.0002	0.083	0.775	< 0.0025	< 0.002
	8/10/2016	< 0.003	0.0072	0.12	< 0.001	< 0.0005	< 0.005	< 0.001	0.72	< 0.0005	< 0.010	< 0.0002	0.087	0.807	< 0.0025	< 0.002
	10/26/2016	< 0.003	0.0082	0.096	< 0.001	< 0.0005	< 0.005	< 0.001	0.53	0.00052	< 0.01	< 0.0002	0.043	0.51	< 0.0025	< 0.002
	2/1/2017	< 0.003	0.011	0.15	* < 0.001	< 0.0005	< 0.005	< 0.001	0.65	< 0.0005	< 0.01	< 0.0002	0.076	0.909	< 0.0025	< 0.002
	5/10/2017	< 0.003	0.014	0.14	< 0.001	< 0.0005	< 0.005	< 0.001	0.46	< 0.0005	< 0.01	< 0.0002	0.074	1.03	< 0.0025	< 0.002
	6/27/2017	< 0.003	0.0058	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.59	< 0.0005	< 0.01	< 0.0002	0.069	0.692	< 0.0025	< 0.002
	9/7/2017	< 0.003	0.0074	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.58	< 0.0005	< 0.01	< 0.0002	0.067	0.676	< 0.0025	< 0.002
	11/15/2017	< 0.003	0.0082	0.15	< 0.001	< 0.0005	< 0.005	< 0.001	0.65	< 0.0005	< 0.01	< 0.0002	0.075	1.04	< 0.0025	< 0.002
	5/3/2018	NA	NA	NA	NA	NA	NA	NA	0.69	NA	NA	NA	NA	NA	NA	NA
	5/25/2021	< 0.003	0.0067	0.16	^1+ < 0.001	< 0.0005	< 0.005	< 0.001	0.74	< 0.0005	< 0.01	< 0.0002	0.077	1.29	< 0.0025	< 0.002
	11/23/2021	< 0.003	0.0085	0.11	^1+ < 0.001	< 0.0005	< 0.005	< 0.001	0.48	< 0.0005	< 0.01	< 0.0002	0.025	2.35	< 0.0025	< 0.002
	2/23/2022	< 0.003	0.013	0.12	^1+ < 0.001	< 0.0005	< 0.005	< 0.001	0.38	0.0006	0.011	< 0.0002	0.031	1.65	< 0.0025	< 0.002
	6/13/2022	< 0.003	0.0088	0.17	< 0.001	< 0.0005	< 0.005	0.0022	0.4	0.0018	0.011	< 0.0002	0.058	1.44	< 0.0025	< 0.002
	GWPS	NS	0.01	2.0	0.004	NS	NS	0.006	4.0	0.015	0.04	NS	0.1	5.0	0.056	NS
	8/23/2022	< 0.003	0.0082	0.1	< 0.001	^1+ < 0.0005	< 0.005	< 0.001	0.5	< 0.0005	< 0.01	< 0.0002	0.033	2.0	< 0.0025	< 0.002
	11/16/2022	< 0.003	0.013	0.1	^+ < 0.001	< 0.0005	< 0.005	0.0015	0.7	0.0014	0.01	< 0.0002	0.052	1.6	< 0.0025	< 0.002
12/29/2022 (R)	NS	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2/21/2023	< 0.003	0.016	0.2	< 0.001	< 0.0005	< 0.005	< 0.001	0.5	0.00096	< 0.01	< 0.0002	0.037	1.6	< 0.0025	< 0.002	
4/25/2023	< 0.0030	0.015	0.18	< 0.0010	< 0.00050	< 0.0050	< 0.0010	0.53	< 0.00050	< 0.010	< 0.00020	0.043	< 0.734	< 0.0025	< 0.0020	
7/25/2023	< 0.0030	0.0077	0.14	< 0.0010	< 0.00050	< 0.0050	< 0.0010	0.46	< 0.00050	< 0.010	< 0.00020	0.031	1.02	< 0.0025	< 0.0020	
10/19/2023	< 0.0030	0.010	0.16	*+ ^+ < 0.0010	< 0.00050	< 0.0050	< 0.0010	0.55	< 0.00050	< 0.010	< 0.00020	0.044	1.34	< 0.0025	^1+ < 0.0020	
MW-12 down-gradient	11/10/2015	< 0.003	0.0016	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	0.59	< 0.0005	0.012	< 0.0002	0.034	0.8139	< 0.0025	< 0.002
	2/16/2016	< 0.003	0.0013	0.084	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.52	< 0.0005	0.015	< 0.0002	0.031	< 0.407	< 0.0025	< 0.002
	5/25/2016	< 0.003	0.0013	0.12	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.54	0.00063	0.014	< 0.0002	0.03	0.41	0.0026	< 0.002
	8/10/2016	< 0.003	0.0017	0.12	< 0.001	< 0.0005	< 0.005	< 0.001	0.49	0.0006	0.017	< 0.0002	0.04	< 0.426	0.0077	< 0.002
	10/26/2016	< 0.003	0.0016	0.11	< 0.001	< 0.0005	0.025	< 0.001	0.49	< 0.0005	0.013	< 0.0002	0.036	< 0.664	< 0.0025	< 0.002
	2/1/2017	< 0.003	0.0017	0.11	* < 0.001	< 0.0005	< 0.005	< 0.001	0.48	0.00065	0.013	< 0.0002	0.023	0.949	< 0.0025	< 0.002
	5/10/2017	< 0.003	0.0013	0.13	< 0.001	< 0.0005	< 0.005	< 0.001	0.3	< 0.0005	0.012	< 0.0002	0.029	< 0.464	0.017	< 0.002
	6/27/2017	< 0.003	0.0014	0.14	< 0.001	< 0.0005	< 0.005	< 0.001	0.44	< 0.0005	0.017	< 0.0002	0.03	< 0.455	0.0032	< 0.002
	9/6/2017	< 0.003	0.0017	0.13	< 0.001	< 0.0005	< 0.005	< 0.001	0.49	< 0.0005	0.014	< 0.0002	0.032	< 0.317	0.0043	< 0.002
	11/15/2017	< 0.003	0.0054	0.034	< 0.001	< 0.0005	< 0.005	< 0.001								

ATTACHMENT 1
Groundwater Flow Contour Maps



ENVIRONMENTAL CONSULTATION & REMEDIATION

POTENTIOMETRIC MAP 02/2023

K P R G

KPRG and Associates, inc.

WILL COUNTY STATION, PONDS 2-S 3-S,
ROMEOWILLE, ILLINOIS

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

Scale: 1" = 250'

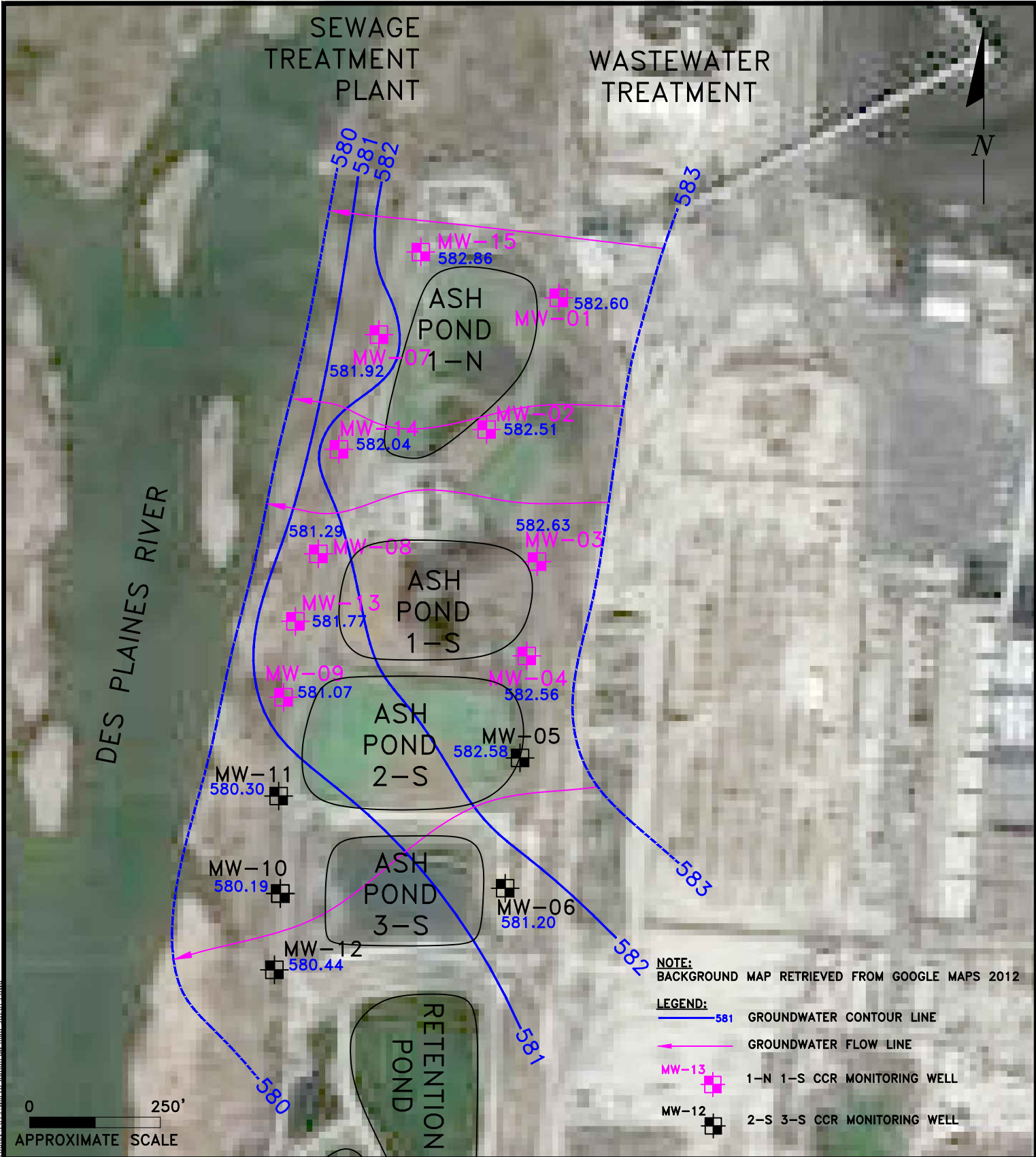
Date: July 5, 2023

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

KPRG Project No. 12313.3

ATTACHMENT 1

W:\projects\willcountystation\12313.3\figures\willcountystation\2019\will_countystation.mxd; 3/20/2019 9:41am



ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G

KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

POTENTIOMETRIC MAP 04/2023

WILL COUNTY STATION, PONDS 2-S 3-S,
ROMEOWILLE, ILLINOIS

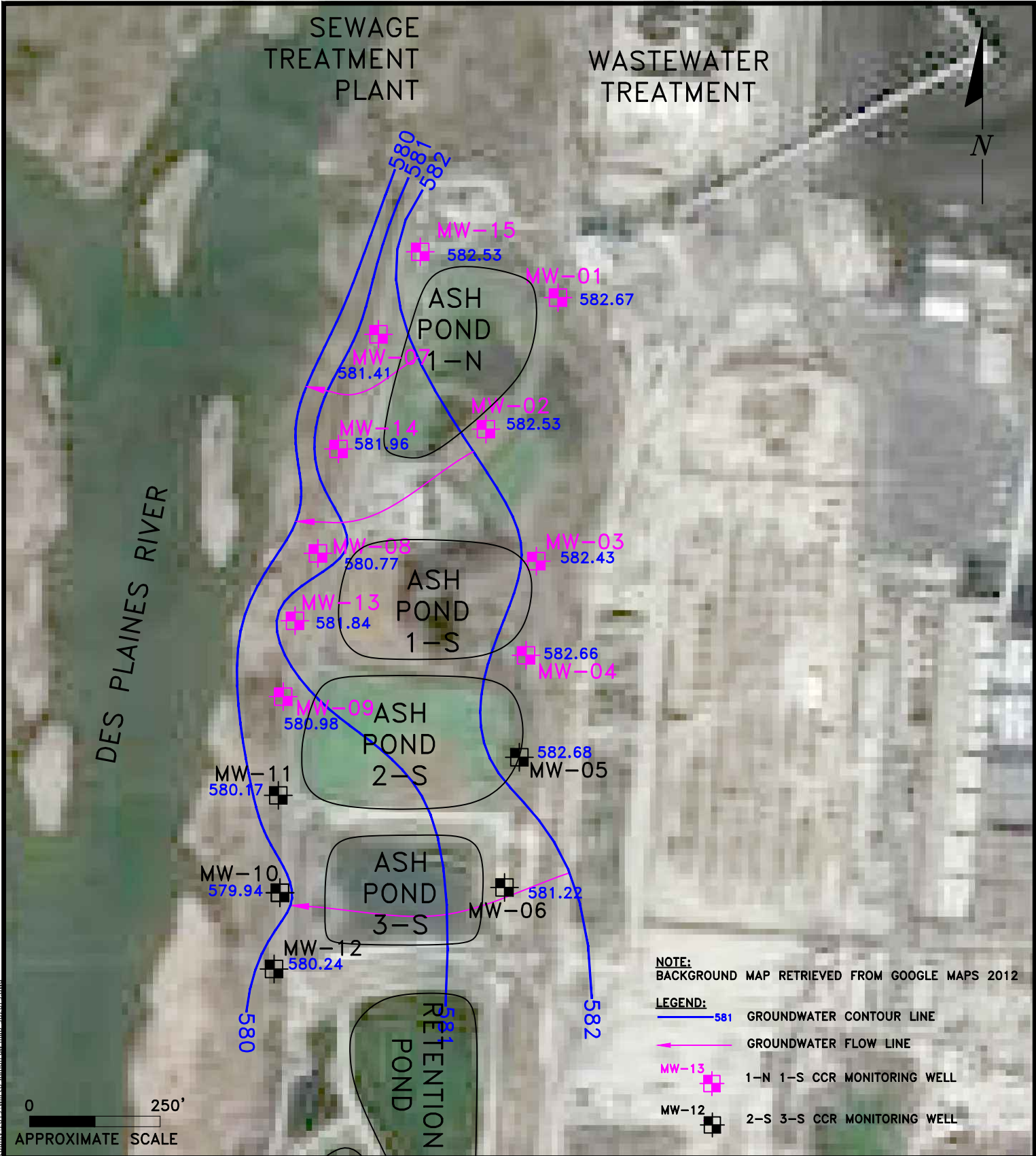
Scale: 1" = 250'

Date: July 5, 2023

KPRG Project No. 12313.3

ATTACHMENT 1

W:\projects\willcountystation\12313.3\figures\willcountystation\2019\will_countystation.mxd\3-20-2019.dwg



ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G

KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

POTENTIOMETRIC MAP 07/2023

WILL COUNTY STATION, PONDS 2-S 3-S,
ROMEOWILLE, ILLINOIS

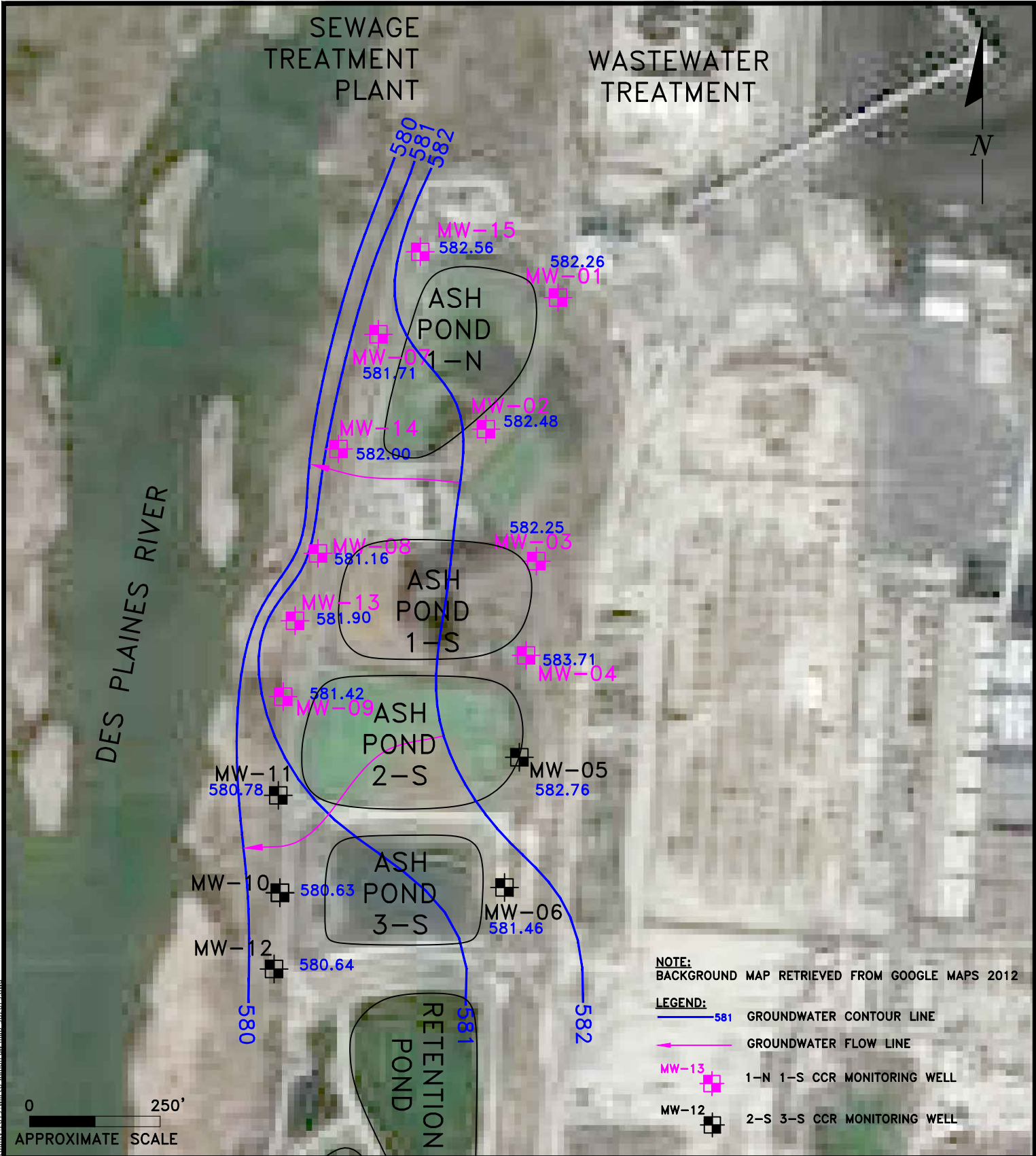
Scale: 1" = 250'

Date: August 16, 2023

KPRG Project No. 12313.3

ATTACHMENT 1

W:\projects\willcountystation\12313.3\figures\willcountystation\2019\will_countystation.mxd 3/20/2019 9:40:00 AM



NOTE:
BACKGROUND MAP RETRIEVED FROM GOOGLE MAPS 2012

- LEGEND:
- 581 GROUNDWATER CONTOUR LINE
 - GROUNDWATER FLOW LINE
 - MW-13 1-N 1-S CCR MONITORING WELL
 - MW-12 2-S 3-S CCR MONITORING WELL

ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G

KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

POTENTIOMETRIC MAP 10/2023

WILL COUNTY STATION, PONDS 2-S 3-S,
ROMEOWILLE, ILLINOIS

Scale: 1" = 250' Date: January 4, 2024

KPRG Project No. 12313.3

ATTACHMENT 1

W:\projects\12313.3\figures\will_county\2019\will_co_station.mxd; 1/20/2024 9:45:00 AM

ATTACHMENT 2
Analytical Data Packages

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Patrick Allenstein
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 3/8/2023 4:08:36 PM

JOB DESCRIPTION

Will County CCR

JOB NUMBER

500-229829-1

Eurofins Chicago

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization



Generated
3/8/2023 4:08:36 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	20
QC Association	21
QC Sample Results	25
Chain of Custody	30
Receipt Checklists	33
Chronicle	34
Certification Summary	39

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Job ID: 500-229829-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-229829-1

Comments

No additional comments.

Receipt

The samples were received on 2/22/2023 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8° C, 1.1° C and 1.4° C.

Metals

Method 6020A: The low level continuing calibration verification (ICVL/CCVL) associated with batch 500-700664 recovered above the upper control limit for Beryllium. The samples associated with this ICVL/CCVL were non-detects for the affected analyte; therefore, the data have been reported.

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.



Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

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:

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

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-229829-1	MW-01	Water	02/22/23 09:22	02/22/23 16:40
500-229829-2	MW-02	Water	02/22/23 10:50	02/22/23 16:40
500-229829-3	MW-03	Water	02/22/23 11:59	02/22/23 16:40
500-229829-4	MW-04	Water	02/22/23 13:02	02/22/23 16:40
500-229829-5	MW-07	Water	02/22/23 14:35	02/22/23 16:40
500-229829-6	MW-13	Water	02/21/23 15:24	02/22/23 16:40
500-229829-7	MW-14	Water	02/21/23 16:07	02/22/23 16:40
500-229829-8	MW-15	Water	02/21/23 16:54	02/22/23 16:40
500-229829-9	1N/1S Duplicate	Water	02/21/23 00:00	02/22/23 16:40
500-229829-10	MW-11	Water	02/21/23 14:24	02/22/23 16:40
500-229829-11	MW-12	Water	02/21/23 13:29	02/22/23 16:40
500-229829-12	MW-08	Water	02/23/23 14:17	02/24/23 09:31
500-229829-13	MW-09	Water	02/23/23 15:44	02/24/23 09:31

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

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-01
Date Collected: 02/22/23 09:22
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:21	1
Arsenic	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:21	1
Barium	0.082		0.0025		mg/L		02/23/23 16:26	02/24/23 12:21	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:21	1
Boron	2.0		0.050		mg/L		02/23/23 16:26	02/24/23 12:21	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:21	1
Calcium	170		0.20		mg/L		02/23/23 16:26	02/24/23 12:21	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:21	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:21	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:21	1
Lithium	0.031		0.010		mg/L		02/23/23 16:26	02/24/23 12:21	1
Molybdenum	0.013		0.0050		mg/L		02/23/23 16:26	02/24/23 12:21	1
Selenium	0.0092		0.0025		mg/L		02/23/23 16:26	02/24/23 12:21	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1000		10		mg/L			02/24/23 03:45	1
Chloride (SM 4500 Cl- E)	29		2.0		mg/L			02/28/23 11:12	1
Fluoride (SM 4500 F C)	0.49		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	360		50		mg/L			02/28/23 12:59	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-02
Date Collected: 02/22/23 10:50
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:24	1
Arsenic	0.0095		0.0010		mg/L		02/23/23 16:26	02/24/23 12:24	1
Barium	0.060		0.0025		mg/L		02/23/23 16:26	02/24/23 12:24	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:24	1
Boron	4.6		0.050		mg/L		02/23/23 16:26	02/24/23 12:24	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:24	1
Calcium	89		0.20		mg/L		02/23/23 16:26	02/24/23 12:24	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:24	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:24	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:24	1
Lithium	0.042		0.010		mg/L		02/23/23 16:26	02/24/23 12:24	1
Molybdenum	0.075		0.0050		mg/L		02/23/23 16:26	02/24/23 12:24	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 12:24	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	980		10		mg/L			02/24/23 03:47	1
Chloride (SM 4500 Cl- E)	29		2.0		mg/L			02/28/23 11:12	1
Fluoride (SM 4500 F C)	0.38		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	460		250		mg/L			02/28/23 13:00	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-03
Date Collected: 02/22/23 11:59
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:35	1
Arsenic	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:35	1
Barium	0.099		0.0025		mg/L		02/23/23 16:26	02/24/23 12:35	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:35	1
Boron	2.4		0.050		mg/L		02/23/23 16:26	02/24/23 12:35	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:35	1
Calcium	180		0.20		mg/L		02/23/23 16:26	02/24/23 12:35	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:35	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:35	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:35	1
Lithium	0.030		0.010		mg/L		02/23/23 16:26	02/24/23 12:35	1
Molybdenum	0.013		0.0050		mg/L		02/23/23 16:26	02/24/23 12:35	1
Selenium	0.030		0.0025		mg/L		02/23/23 16:26	02/24/23 12:35	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1000		10		mg/L			02/24/23 03:50	1
Chloride (SM 4500 Cl- E)	14		10		mg/L			02/28/23 11:12	5
Fluoride (SM 4500 F C)	0.29		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	330		100		mg/L			02/28/23 13:01	20

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-04
Date Collected: 02/22/23 13:02
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:38	1
Arsenic	0.0044		0.0010		mg/L		02/23/23 16:26	02/24/23 12:38	1
Barium	0.035		0.0025		mg/L		02/23/23 16:26	02/24/23 12:38	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:38	1
Boron	3.7		0.050		mg/L		02/23/23 16:26	02/24/23 12:38	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:38	1
Calcium	390		1.0		mg/L		02/23/23 16:26	02/24/23 13:29	5
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:38	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:38	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:38	1
Lithium	0.020		0.010		mg/L		02/23/23 16:26	02/24/23 12:38	1
Molybdenum	0.032		0.0050		mg/L		02/23/23 16:26	02/24/23 12:38	1
Selenium	0.067		0.0025		mg/L		02/23/23 16:26	02/24/23 12:38	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:38	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2500		10		mg/L			02/24/23 03:53	1
Chloride (SM 4500 Cl- E)	36		2.0		mg/L			02/28/23 11:13	1
Fluoride (SM 4500 F C)	0.38		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	1200		250		mg/L			02/28/23 13:01	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-07

Lab Sample ID: 500-229829-5

Date Collected: 02/22/23 14:35

Matrix: Water

Date Received: 02/22/23 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:41	1
Arsenic	0.0016		0.0010		mg/L		02/23/23 16:26	02/24/23 12:41	1
Barium	0.084		0.0025		mg/L		02/23/23 16:26	02/24/23 12:41	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:41	1
Boron	3.0		0.050		mg/L		02/23/23 16:26	02/24/23 12:41	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:41	1
Calcium	220		0.20		mg/L		02/23/23 16:26	02/24/23 12:41	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:41	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:41	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:41	1
Lithium	0.027		0.010		mg/L		02/23/23 16:26	02/24/23 12:41	1
Molybdenum	0.022		0.0050		mg/L		02/23/23 16:26	02/24/23 12:41	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 12:41	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1500		10		mg/L			02/24/23 03:56	1
Chloride (SM 4500 Cl- E)	120		20		mg/L			02/28/23 11:13	10
Fluoride (SM 4500 F C)	0.41		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	470		250		mg/L			02/28/23 13:02	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-13
Date Collected: 02/21/23 15:24
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:45	1
Arsenic	0.0013		0.0010		mg/L		02/23/23 16:26	02/24/23 12:45	1
Barium	0.11		0.0025		mg/L		02/23/23 16:26	02/24/23 12:45	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:45	1
Boron	0.65		0.050		mg/L		02/23/23 16:26	02/24/23 12:45	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:45	1
Calcium	110		0.20		mg/L		02/23/23 16:26	02/24/23 12:45	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:45	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:45	1
Lead	0.0011		0.00050		mg/L		02/23/23 16:26	02/24/23 12:45	1
Lithium	<0.010		0.010		mg/L		02/23/23 16:26	02/24/23 12:45	1
Molybdenum	0.014		0.0050		mg/L		02/23/23 16:26	02/24/23 12:45	1
Selenium	0.011		0.0025		mg/L		02/23/23 16:26	02/24/23 12:45	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	740		10		mg/L			02/24/23 03:58	1
Chloride (SM 4500 Cl- E)	150		20		mg/L			02/28/23 11:14	10
Fluoride (SM 4500 F C)	0.32		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	120		25		mg/L			02/28/23 13:02	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-14
Date Collected: 02/21/23 16:07
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:48	1
Arsenic	0.0028		0.0010		mg/L		02/23/23 16:26	02/24/23 12:48	1
Barium	0.15		0.0025		mg/L		02/23/23 16:26	02/24/23 12:48	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:48	1
Boron	2.6		0.050		mg/L		02/23/23 16:26	02/24/23 12:48	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:48	1
Calcium	88		0.20		mg/L		02/23/23 16:26	02/24/23 12:48	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:48	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:48	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:48	1
Lithium	0.021		0.010		mg/L		02/23/23 16:26	02/24/23 12:48	1
Molybdenum	0.071		0.0050		mg/L		02/23/23 16:26	02/24/23 12:48	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 12:48	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	970		10		mg/L			02/24/23 04:01	1
Chloride (SM 4500 Cl- E)	120		20		mg/L			02/28/23 11:14	10
Fluoride (SM 4500 F C)	0.61		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	390		250		mg/L			02/28/23 12:42	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-15
Date Collected: 02/21/23 16:54
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:52	1
Arsenic	0.0031		0.0010		mg/L		02/23/23 16:26	02/24/23 12:52	1
Barium	0.15		0.0025		mg/L		02/23/23 16:26	02/24/23 12:52	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:52	1
Boron	3.0		0.050		mg/L		02/23/23 16:26	02/24/23 12:52	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:52	1
Calcium	290		1.0		mg/L		02/23/23 16:26	02/24/23 13:36	5
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:52	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:52	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:52	1
Lithium	0.026		0.010		mg/L		02/23/23 16:26	02/24/23 12:52	1
Molybdenum	0.015		0.0050		mg/L		02/23/23 16:26	02/24/23 12:52	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 12:52	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1700		10		mg/L			02/24/23 04:04	1
Chloride (SM 4500 Cl- E)	120		20		mg/L			02/28/23 11:14	10
Fluoride (SM 4500 F C)	0.28		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	690		250		mg/L			02/28/23 12:43	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: 1N/1S Duplicate

Lab Sample ID: 500-229829-9

Date Collected: 02/21/23 00:00

Matrix: Water

Date Received: 02/22/23 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:55	1
Arsenic	0.0027		0.0010		mg/L		02/23/23 16:26	02/24/23 12:55	1
Barium	0.12		0.0025		mg/L		02/23/23 16:26	02/24/23 12:55	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:55	1
Boron	2.6		0.050		mg/L		02/23/23 16:26	02/24/23 12:55	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:55	1
Calcium	85		0.20		mg/L		02/23/23 16:26	02/24/23 12:55	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:55	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:55	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:55	1
Lithium	0.020		0.010		mg/L		02/23/23 16:26	02/24/23 12:55	1
Molybdenum	0.069		0.0050		mg/L		02/23/23 16:26	02/24/23 12:55	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 12:55	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1000		10		mg/L			02/24/23 04:06	1
Chloride (SM 4500 Cl- E)	120		20		mg/L			02/28/23 11:30	10
Fluoride (SM 4500 F C)	0.60		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	390		250		mg/L			02/28/23 12:43	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-11
Date Collected: 02/21/23 14:24
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 12:59	1
Arsenic	0.016		0.0010		mg/L		02/23/23 16:26	02/24/23 12:59	1
Barium	0.18		0.0025		mg/L		02/23/23 16:26	02/24/23 12:59	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:59	1
Boron	2.2		0.050		mg/L		02/23/23 16:26	02/24/23 12:59	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 12:59	1
Calcium	120		0.20		mg/L		02/23/23 16:26	02/24/23 12:59	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 12:59	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 12:59	1
Lead	0.00096		0.00050		mg/L		02/23/23 16:26	02/24/23 12:59	1
Lithium	<0.010		0.010		mg/L		02/23/23 16:26	02/24/23 12:59	1
Molybdenum	0.037		0.0050		mg/L		02/23/23 16:26	02/24/23 12:59	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 12:59	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 12:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	710		10		mg/L			02/24/23 04:09	1
Chloride (SM 4500 Cl- E)	130		20		mg/L			02/28/23 11:15	10
Fluoride (SM 4500 F C)	0.45		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	81		25		mg/L			02/28/23 12:44	5

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-12
Date Collected: 02/21/23 13:29
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 13:02	1
Arsenic	0.0015		0.0010		mg/L		02/23/23 16:26	02/24/23 13:02	1
Barium	0.13		0.0025		mg/L		02/23/23 16:26	02/24/23 13:02	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 13:02	1
Boron	1.6		0.050		mg/L		02/23/23 16:26	02/24/23 13:02	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 13:02	1
Calcium	150		0.20		mg/L		02/23/23 16:26	02/24/23 13:02	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 13:02	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 13:02	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 13:02	1
Lithium	0.012		0.010		mg/L		02/23/23 16:26	02/24/23 13:02	1
Molybdenum	0.025		0.0050		mg/L		02/23/23 16:26	02/24/23 13:02	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 13:02	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 13:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	980		10		mg/L			02/24/23 04:12	1
Chloride (SM 4500 Cl- E)	150		20		mg/L			02/28/23 11:15	10
Fluoride (SM 4500 F C)	0.41		0.10		mg/L			02/28/23 14:13	1
Sulfate (SM 4500 SO4 E)	180		50		mg/L			02/28/23 12:44	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-08

Lab Sample ID: 500-229829-12

Date Collected: 02/23/23 14:17

Matrix: Water

Date Received: 02/24/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 17:40	1
Arsenic	0.0030		0.0010		mg/L		02/27/23 08:21	02/28/23 17:40	1
Barium	0.040		0.0025		mg/L		02/27/23 08:21	02/28/23 17:40	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 17:40	1
Boron	1.9		0.050		mg/L		02/27/23 08:21	02/28/23 17:40	1
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:40	1
Calcium	150		0.20		mg/L		02/27/23 08:21	02/28/23 17:40	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 17:40	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 17:40	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:40	1
Lithium	<0.010		0.010		mg/L		02/27/23 08:21	02/28/23 17:40	1
Molybdenum	0.028		0.0050		mg/L		02/27/23 08:21	02/28/23 17:40	1
Selenium	0.033		0.0025		mg/L		02/27/23 08:21	02/28/23 17:40	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 17:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1300		10		mg/L			02/27/23 05:30	1
Chloride (SM 4500 Cl- E)	200		20		mg/L			02/28/23 11:15	10
Fluoride (SM 4500 F C)	0.60		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	320		250		mg/L			02/28/23 12:44	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-09

Lab Sample ID: 500-229829-13

Date Collected: 02/23/23 15:44

Matrix: Water

Date Received: 02/24/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 17:43	1
Arsenic	0.0079		0.0010		mg/L		02/27/23 08:21	02/28/23 17:43	1
Barium	0.029		0.0025		mg/L		02/27/23 08:21	02/28/23 17:43	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 17:43	1
Boron	1.7		0.050		mg/L		02/27/23 08:21	02/28/23 17:43	1
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:43	1
Calcium	36		0.20		mg/L		02/27/23 08:21	02/28/23 17:43	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 17:43	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 17:43	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:43	1
Lithium	<0.010		0.010		mg/L		02/27/23 08:21	02/28/23 17:43	1
Molybdenum	0.063		0.0050		mg/L		02/27/23 08:21	02/28/23 17:43	1
Selenium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 17:43	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 17:43	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 10:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	720		10		mg/L			02/27/23 05:33	1
Chloride (SM 4500 Cl- E)	190		20		mg/L			02/28/23 11:16	10
Fluoride (SM 4500 F C)	0.53		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	210		50		mg/L			02/28/23 12:45	10

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

Glossary

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

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Metals

Prep Batch: 700008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total Recoverable	Water	3005A	
500-229829-2	MW-02	Total Recoverable	Water	3005A	
500-229829-3	MW-03	Total Recoverable	Water	3005A	
500-229829-4	MW-04	Total Recoverable	Water	3005A	
500-229829-5	MW-07	Total Recoverable	Water	3005A	
500-229829-6	MW-13	Total Recoverable	Water	3005A	
500-229829-7	MW-14	Total Recoverable	Water	3005A	
500-229829-8	MW-15	Total Recoverable	Water	3005A	
500-229829-9	1N/1S Duplicate	Total Recoverable	Water	3005A	
500-229829-10	MW-11	Total Recoverable	Water	3005A	
500-229829-11	MW-12	Total Recoverable	Water	3005A	
MB 500-700008/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-700008/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 700200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total Recoverable	Water	6020A	700008
500-229829-2	MW-02	Total Recoverable	Water	6020A	700008
500-229829-3	MW-03	Total Recoverable	Water	6020A	700008
500-229829-4	MW-04	Total Recoverable	Water	6020A	700008
500-229829-4	MW-04	Total Recoverable	Water	6020A	700008
500-229829-5	MW-07	Total Recoverable	Water	6020A	700008
500-229829-6	MW-13	Total Recoverable	Water	6020A	700008
500-229829-7	MW-14	Total Recoverable	Water	6020A	700008
500-229829-8	MW-15	Total Recoverable	Water	6020A	700008
500-229829-8	MW-15	Total Recoverable	Water	6020A	700008
500-229829-9	1N/1S Duplicate	Total Recoverable	Water	6020A	700008
500-229829-10	MW-11	Total Recoverable	Water	6020A	700008
500-229829-11	MW-12	Total Recoverable	Water	6020A	700008
MB 500-700008/1-A	Method Blank	Total Recoverable	Water	6020A	700008
LCS 500-700008/2-A	Lab Control Sample	Total Recoverable	Water	6020A	700008

Prep Batch: 700282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-12	MW-08	Total Recoverable	Water	3005A	
500-229829-13	MW-09	Total Recoverable	Water	3005A	
MB 500-700282/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-700282/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 700664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-12	MW-08	Total Recoverable	Water	6020A	700282
500-229829-13	MW-09	Total Recoverable	Water	6020A	700282
MB 500-700282/1-A	Method Blank	Total Recoverable	Water	6020A	700282
LCS 500-700282/2-A	Lab Control Sample	Total Recoverable	Water	6020A	700282

Prep Batch: 700695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	7470A	
500-229829-2	MW-02	Total/NA	Water	7470A	
500-229829-3	MW-03	Total/NA	Water	7470A	

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Metals (Continued)

Prep Batch: 700695 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-4	MW-04	Total/NA	Water	7470A	
500-229829-5	MW-07	Total/NA	Water	7470A	
500-229829-6	MW-13	Total/NA	Water	7470A	
500-229829-7	MW-14	Total/NA	Water	7470A	
500-229829-8	MW-15	Total/NA	Water	7470A	
500-229829-9	1N/1S Duplicate	Total/NA	Water	7470A	
500-229829-10	MW-11	Total/NA	Water	7470A	
500-229829-11	MW-12	Total/NA	Water	7470A	
500-229829-12	MW-08	Total/NA	Water	7470A	
500-229829-13	MW-09	Total/NA	Water	7470A	
MB 500-700695/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-700695/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-229829-10 MS	MW-11	Total/NA	Water	7470A	
500-229829-10 MSD	MW-11	Total/NA	Water	7470A	
500-229829-10 DU	MW-11	Total/NA	Water	7470A	

Analysis Batch: 700909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	7470A	700695
500-229829-2	MW-02	Total/NA	Water	7470A	700695
500-229829-3	MW-03	Total/NA	Water	7470A	700695
500-229829-4	MW-04	Total/NA	Water	7470A	700695
500-229829-5	MW-07	Total/NA	Water	7470A	700695
500-229829-6	MW-13	Total/NA	Water	7470A	700695
500-229829-7	MW-14	Total/NA	Water	7470A	700695
500-229829-8	MW-15	Total/NA	Water	7470A	700695
500-229829-9	1N/1S Duplicate	Total/NA	Water	7470A	700695
500-229829-10	MW-11	Total/NA	Water	7470A	700695
500-229829-11	MW-12	Total/NA	Water	7470A	700695
500-229829-12	MW-08	Total/NA	Water	7470A	700695
500-229829-13	MW-09	Total/NA	Water	7470A	700695
MB 500-700695/12-A	Method Blank	Total/NA	Water	7470A	700695
LCS 500-700695/13-A	Lab Control Sample	Total/NA	Water	7470A	700695
500-229829-10 MS	MW-11	Total/NA	Water	7470A	700695
500-229829-10 MSD	MW-11	Total/NA	Water	7470A	700695
500-229829-10 DU	MW-11	Total/NA	Water	7470A	700695

General Chemistry

Analysis Batch: 700038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	SM 2540C	
500-229829-2	MW-02	Total/NA	Water	SM 2540C	
500-229829-3	MW-03	Total/NA	Water	SM 2540C	
500-229829-4	MW-04	Total/NA	Water	SM 2540C	
500-229829-5	MW-07	Total/NA	Water	SM 2540C	
500-229829-6	MW-13	Total/NA	Water	SM 2540C	
500-229829-7	MW-14	Total/NA	Water	SM 2540C	
500-229829-8	MW-15	Total/NA	Water	SM 2540C	
500-229829-9	1N/1S Duplicate	Total/NA	Water	SM 2540C	
500-229829-10	MW-11	Total/NA	Water	SM 2540C	

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

General Chemistry (Continued)

Analysis Batch: 700038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-11	MW-12	Total/NA	Water	SM 2540C	
MB 500-700038/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-700038/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 700232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-12	MW-08	Total/NA	Water	SM 2540C	
500-229829-13	MW-09	Total/NA	Water	SM 2540C	
MB 500-700232/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-700232/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 700503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-229829-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-229829-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-229829-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-229829-5	MW-07	Total/NA	Water	SM 4500 Cl- E	
500-229829-6	MW-13	Total/NA	Water	SM 4500 Cl- E	
500-229829-7	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-229829-8	MW-15	Total/NA	Water	SM 4500 Cl- E	
500-229829-9	1N/1S Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-229829-10	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-229829-11	MW-12	Total/NA	Water	SM 4500 Cl- E	
500-229829-12	MW-08	Total/NA	Water	SM 4500 Cl- E	
500-229829-13	MW-09	Total/NA	Water	SM 4500 Cl- E	
MB 500-700503/52	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-700503/53	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 700520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-229829-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-229829-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-229829-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-229829-5	MW-07	Total/NA	Water	SM 4500 SO4 E	
500-229829-6	MW-13	Total/NA	Water	SM 4500 SO4 E	
500-229829-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-229829-8	MW-15	Total/NA	Water	SM 4500 SO4 E	
500-229829-9	1N/1S Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-229829-10	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-229829-11	MW-12	Total/NA	Water	SM 4500 SO4 E	
500-229829-12	MW-08	Total/NA	Water	SM 4500 SO4 E	
500-229829-13	MW-09	Total/NA	Water	SM 4500 SO4 E	
MB 500-700520/52	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-700520/53	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 700591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	SM 4500 F C	
500-229829-6	MW-13	Total/NA	Water	SM 4500 F C	

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

General Chemistry (Continued)

Analysis Batch: 700591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-7	MW-14	Total/NA	Water	SM 4500 F C	
500-229829-8	MW-15	Total/NA	Water	SM 4500 F C	
500-229829-9	1N/1S Duplicate	Total/NA	Water	SM 4500 F C	
500-229829-10	MW-11	Total/NA	Water	SM 4500 F C	
500-229829-11	MW-12	Total/NA	Water	SM 4500 F C	
MB 500-700591/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-700591/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-229829-11 MS	MW-12	Total/NA	Water	SM 4500 F C	
500-229829-11 MSD	MW-12	Total/NA	Water	SM 4500 F C	

Analysis Batch: 700911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-2	MW-02	Total/NA	Water	SM 4500 F C	
500-229829-3	MW-03	Total/NA	Water	SM 4500 F C	
500-229829-4	MW-04	Total/NA	Water	SM 4500 F C	
500-229829-5	MW-07	Total/NA	Water	SM 4500 F C	
500-229829-12	MW-08	Total/NA	Water	SM 4500 F C	
500-229829-13	MW-09	Total/NA	Water	SM 4500 F C	
MB 500-700911/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-700911/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-700008/1-A
Matrix: Water
Analysis Batch: 700200

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 700008

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		02/23/23 16:26	02/24/23 11:53	1
Arsenic	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 11:53	1
Barium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 11:53	1
Beryllium	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 11:53	1
Boron	<0.050		0.050		mg/L		02/23/23 16:26	02/24/23 11:53	1
Cadmium	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 11:53	1
Calcium	<0.20		0.20		mg/L		02/23/23 16:26	02/24/23 11:53	1
Chromium	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 11:53	1
Cobalt	<0.0010		0.0010		mg/L		02/23/23 16:26	02/24/23 11:53	1
Lead	<0.00050		0.00050		mg/L		02/23/23 16:26	02/24/23 11:53	1
Lithium	<0.010		0.010		mg/L		02/23/23 16:26	02/24/23 11:53	1
Molybdenum	<0.0050		0.0050		mg/L		02/23/23 16:26	02/24/23 11:53	1
Selenium	<0.0025		0.0025		mg/L		02/23/23 16:26	02/24/23 11:53	1
Thallium	<0.0020		0.0020		mg/L		02/23/23 16:26	02/24/23 11:53	1

Lab Sample ID: LCS 500-700008/2-A
Matrix: Water
Analysis Batch: 700200

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 700008

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0951		mg/L		95	80 - 120
Barium	2.00	2.07		mg/L		103	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Boron	1.00	0.901		mg/L		90	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Calcium	10.0	9.68		mg/L		97	80 - 120
Chromium	0.200	0.206		mg/L		103	80 - 120
Cobalt	0.500	0.515		mg/L		103	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Lithium	0.500	0.491		mg/L		98	80 - 120
Molybdenum	1.00	0.972		mg/L		97	80 - 120
Selenium	0.100	0.0982		mg/L		98	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: MB 500-700282/1-A
Matrix: Water
Analysis Batch: 700664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 700282

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 17:12	1
Arsenic	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Barium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 17:12	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Boron	<0.050		0.050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Calcium	<0.20		0.20		mg/L		02/27/23 08:21	02/28/23 17:12	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 17:12	1

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

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

Lab Sample ID: MB 500-700282/1-A
Matrix: Water
Analysis Batch: 700664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 700282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Lithium	<0.010		0.010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Molybdenum	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Selenium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 17:12	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 17:12	1

Lab Sample ID: LCS 500-700282/2-A
Matrix: Water
Analysis Batch: 700664

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 700282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.535		mg/L		107	80 - 120
Arsenic	0.100	0.0952		mg/L		95	80 - 120
Barium	2.00	2.05		mg/L		102	80 - 120
Beryllium	0.0500	0.0479	^1+ ^+	mg/L		96	80 - 120
Boron	1.00	0.983		mg/L		98	80 - 120
Cadmium	0.0500	0.0497		mg/L		99	80 - 120
Calcium	10.0	9.80		mg/L		98	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Lithium	0.500	0.481		mg/L		96	80 - 120
Molybdenum	1.00	0.964		mg/L		96	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.107		mg/L		107	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-700695/12-A
Matrix: Water
Analysis Batch: 700909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 700695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/01/23 11:25	03/02/23 09:57	1

Lab Sample ID: LCS 500-700695/13-A
Matrix: Water
Analysis Batch: 700909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 700695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00198	0.00194		mg/L		98	80 - 120

Lab Sample ID: 500-229829-10 MS
Matrix: Water
Analysis Batch: 700909

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 700695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00100	0.000985		mg/L		99	75 - 125

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

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

Lab Sample ID: 500-229829-10 MSD
Matrix: Water
Analysis Batch: 700909

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 700695

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000998		mg/L		100	75 - 125	1	20

Lab Sample ID: 500-229829-10 DU
Matrix: Water
Analysis Batch: 700909

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 700695

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

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

Lab Sample ID: MB 500-700038/1
Matrix: Water
Analysis Batch: 700038

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/24/23 03:21	1

Lab Sample ID: LCS 500-700038/2
Matrix: Water
Analysis Batch: 700038

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	270		mg/L		108	80 - 120

Lab Sample ID: MB 500-700232/1
Matrix: Water
Analysis Batch: 700232

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/27/23 04:39	1

Lab Sample ID: LCS 500-700232/2
Matrix: Water
Analysis Batch: 700232

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

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

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-700503/52
Matrix: Water
Analysis Batch: 700503

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			02/28/23 11:10	1

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-700503/53
Matrix: Water
Analysis Batch: 700503

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.0		mg/L		100	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-700591/31
Matrix: Water
Analysis Batch: 700591

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			02/28/23 14:13	1

Lab Sample ID: LCS 500-700591/32
Matrix: Water
Analysis Batch: 700591

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

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

Lab Sample ID: 500-229829-11 MS
Matrix: Water
Analysis Batch: 700591

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.41		5.00	5.42		mg/L		100	75 - 125

Lab Sample ID: 500-229829-11 MSD
Matrix: Water
Analysis Batch: 700591

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Fluoride	0.41		5.00	5.58		mg/L		103	75 - 125	3	20

Lab Sample ID: MB 500-700911/3
Matrix: Water
Analysis Batch: 700911

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/02/23 13:02	1

Lab Sample ID: LCS 500-700911/4
Matrix: Water
Analysis Batch: 700911

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.2		mg/L		102	90 - 119

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-700520/52
Matrix: Water
Analysis Batch: 700520

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			02/28/23 12:36	1

Lab Sample ID: LCS 500-700520/53
Matrix: Water
Analysis Batch: 700520

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	21.9		mg/L		109	88 - 123



Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax. 708-534-5211



Chain of Custody Record



Environment Testing

Client Information		500-229829 COC		Sampler: <i>IAN JOHN HONKESON</i>		Lab PM: Mockler Diana J		Carrier Tracking No(s)		COC No: 500-110232-45943 1			
Client Contact: Patrick Allenstein		Phone: <i>630 325 1300</i>		E-Mail: Diana Mockler@et.eurofinsus.com		State of Origin		Page 1 of 1		Job #: <i>500-229829</i>			
Company: KPRG and Associates Inc		PWSID		Analysis Requested								Preservation Codes	
Address: 14665 West Lisbon Road Suite 1A		Due Date Requested		TAT Requested (days):		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #: 4502116506		WO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I Ice J - DI Water K - EDTA L EDA M - Hexane N - None O AsNaO2 P - Na2O4S Q Na2SO3 R - Na2S2O3 S - H2SO4 T TSP Dodecahydrate U Acetone V MCAA W - pH 4-5 Y - Trizma Z other (specify)	
City: Brookfield		Project #: 50011609		SSOW#:		Project Name: Will County 1N/1S Event Desc Quarterly GW Monitoring		Site: Illinois <i>COK</i>		Field Filtered Sample (Yes or No)		Total Number of Containers	
State, Zip: WI 53005		PO #:		WO #:		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Perform MS/MSD (Yes or No)		903.0, 904.0		6010C, 6020A, 7470A	
Phone		Project #:		SSOW#:		Sample Type (C=comp, G=grab)		2540C, 4500_F_C, SM4500_CLE, SM4500_S04_E		5		Special Instructions/Note	
Email: patricka@kprginc.com		Project #:		SSOW#:		Preservation Code:		D D N		5			
Project Name: Will County 1N/1S Event Desc Quarterly GW Monitoring		Project #:		SSOW#:		MW-01		2-22-23 09:22 G Water		N N X X X			
Site: Illinois <i>COK</i>		Project #:		SSOW#:		MW-02		2-22-23 10:50 G Water		N N X X X			
		Project #:		SSOW#:		MW-03		2-22-23 11:59 G Water		N N X X X			
		Project #:		SSOW#:		MW-04		2-22-23 13:02 G Water		N N X X X			
		Project #:		SSOW#:		MW-07		2-22-23 14:35 G Water		N N X X X			
		Project #:		SSOW#:		MW-08							
		Project #:		SSOW#:		MW-09							
		Project #:		SSOW#:		MW-13		2-21-23 15:24 G Water		N N X X X			
		Project #:		SSOW#:		MW-14		2-21-23 16:07 G Water		N N X X X			
		Project #:		SSOW#:		MW-15		2-21-23 16:54 G Water		N N X X X			
		Project #:		SSOW#:		1N/1S Duplicate		2-21-23 — G Water		N N X X X			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<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						<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		Date		Time		Method of Shipment:							
Relinquished by: <i>[Signature]</i>		Date/Time: 2-22-23 16:40		Company: KPRG		Received by: <i>[Signature]</i>		Date/Time: 2-22-23 16:40		Company:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>(1.0 - 0.8) (2.1 - 1.1)</i>									

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

Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534 5211

Chain of Custody Record



Environmental Testing

Client Information				Sampler <i>IAN JOHN HORTON</i>	Lab PM Mockler Diana J	Carrier Tracking No(s)	COCC No 500-110231-45942 1			
Client Contact Patrick Allenstein				Phone <i>630 325 1300</i>	E-Mail Diana Mockler@et.eurofinsus.com	State of Origin	Page: Page 1 of 1			
Company KPRG and Associates Inc				PWSID	Analysis Requested					
Address 14665 West Lisbon Road Suite 1A				Due Date Requested.	Job # <i>500-229829</i> Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z other (specify) Other:					
City Brookfield				TAT Requested (days)						
State Zip WI 53005				Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No						
Phone				PO # 4502116506						
Email patricka@kprginc.com				WO #						
Project Name Will County 2S/3S Event Desc: Quarterly GW Monitoring				Project # 50011609	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0, 904.0 9010C, 9020A, 7470A 2540C 4500_F_C, SM4500_CL_E, SM4500_SO4_E					
Site Illinois				SSOW#						
Sample Identification				Sample Date				Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)
<i>CCR</i>				Preservation Code:				Total Number of Containers		
MW-05							Water			
MW-06							Water			
MW-09							Water			
MW-10							Water			
MW-11				<i>2-21-23</i>	<i>14:24</i>	<i>G</i>	Water			
MW-12				<i>2-21-23</i>	<i>13:29</i>	<i>G</i>	Water			
2S/3S Duplicate							Water			
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<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				<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:				Date	Time	Method of Shipment:				
Relinquished by <i>[Signature]</i>				Date/Time <i>2-22-23 16:40</i>	Company <i>KPRG</i>	Received by <i>[Signature]</i>	Date/Time <i>2-22-23 16:40</i>			
Relinquished by				Date/Time	Company	Received by	Date/Time			
Relinquished by				Date/Time	Company	Received by	Date/Time			
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No						
				Cooler Temperature(s) °C and Other Remarks. <i>10 - 0.8</i>						

10
11

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

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax: 708-534-5211



Chain of Custody Record

eurofins | Environment Testing

Client Information	500-229829 COC	ampler: <i>IAN JOHN HANCOCKSON</i>	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-110232-45943.1
	Client Contact: Patrick Allenstein	none: <i>630 325 1300</i>	E-Mail: Diana Mockler@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1

Company: KPRG and Associates, Inc.	PWSID:	Analysis Requested	Job #: <i>500-229829</i>
Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested	Field Filtered Sample (Yes or No) Perforated MSWSP (Yes or No) 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500_L_C, SM4500_CLE, SM4500_S04_E	Total Number of Containers 11
City: Brookfield	TAT Requested (days):		
State, Zip: WI, 53005	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Phone:	PO #: 4502116506		
Email: patricka@kprginc.com	WO #:		
Project Name: Will County 1N/1S Event Desc. Quarterly GW Monitoring <i>CCR</i>	Project #: 50011609		
Site: Illinois	SSOW#:	Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perforated MSWSP (Yes or No)	903.0, 904.0	6010C, 6020A, 7470A	2540C, 4500_L_C, SM4500_CLE, SM4500_S04_E	Total Number of Containers	Special Instructions/Note:
MW-01	—	—	—	Water							
MW-02	—	—	—	Water							
MW-03	—	—	—	Water							
MW-04	—	—	—	Water							
MW-07	—	—	—	Water							
<i>12</i> MW-08	<i>2-23-23</i>	<i>14:17</i>	<i>G</i>	Water	<i>NN</i>	<i>X</i>	<i>X</i>	<i>X</i>			
<i>13</i> MW-09	<i>2-23-23</i>	<i>15:44</i>	<i>G</i>	Water	<i>NN</i>	<i>X</i>	<i>X</i>	<i>X</i>			
MW-13	—	—	—	Water							
MW-14	—	—	—	Water							
MW-15	—	—	—	Water							
1N/1S Duplicate	—	—	—	Water							

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: <i>[Signature]</i>	Date: <i>2-23-23 09:31</i>	Time: <i>09:31</i>	Method of Shipment:	Company: <i>KPRG</i>
Relinquished by: <i>[Signature]</i>	Date/Time: <i>2-23-23 09:31</i>	Received by: <i>[Signature]</i>	Date/Time: <i>2-23-23 09:31</i>	Company: <i>KPRG</i>
Relinquished by:	Date/Time:	Received by:	Date/Time:	Company:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: <i>1.6 → 1.4</i>
--	-----------------	--

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229829-1

Login Number: 229829

List Number: 1

Creator: James, Jeff A

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,1.1,1.4
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-01
Date Collected: 02/22/23 09:22
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:21
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:01
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 03:45
Total/NA	Analysis	SM 4500 CI- E		1	700503	LP	EET CHI	02/28/23 11:12
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		10	700520	LP	EET CHI	02/28/23 12:59

Client Sample ID: MW-02
Date Collected: 02/22/23 10:50
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:24
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:03
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 03:47
Total/NA	Analysis	SM 4500 CI- E		1	700503	LP	EET CHI	02/28/23 11:12
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 13:00

Client Sample ID: MW-03
Date Collected: 02/22/23 11:59
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:35
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:05
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 03:50
Total/NA	Analysis	SM 4500 CI- E		5	700503	LP	EET CHI	02/28/23 11:12
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		20	700520	LP	EET CHI	02/28/23 13:01

Client Sample ID: MW-04
Date Collected: 02/22/23 13:02
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:38

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-04
Date Collected: 02/22/23 13:02
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		5	700200	FXG	EET CHI	02/24/23 13:29
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:07
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 03:53
Total/NA	Analysis	SM 4500 CI- E		1	700503	LP	EET CHI	02/28/23 11:13
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 13:01

Client Sample ID: MW-07
Date Collected: 02/22/23 14:35
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:41
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:09
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 03:56
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:13
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 13:02

Client Sample ID: MW-13
Date Collected: 02/21/23 15:24
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:45
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:11
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 03:58
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:14
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		5	700520	LP	EET CHI	02/28/23 13:02

Client Sample ID: MW-14
Date Collected: 02/21/23 16:07
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:48

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-14
Date Collected: 02/21/23 16:07
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:18
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 04:01
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:14
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 12:42

Client Sample ID: MW-15
Date Collected: 02/21/23 16:54
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:52
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		5	700200	FXG	EET CHI	02/24/23 13:36
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:20
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 04:04
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:14
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 12:43

Client Sample ID: 1N/1S Duplicate
Date Collected: 02/21/23 00:00
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:55
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:22
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 04:06
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:30
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 12:43

Client Sample ID: MW-11
Date Collected: 02/21/23 14:24
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 12:59

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-11

Date Collected: 02/21/23 14:24

Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:24
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 04:09
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:15
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		5	700520	LP	EET CHI	02/28/23 12:44

Client Sample ID: MW-12

Date Collected: 02/21/23 13:29

Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700008	RN	EET CHI	02/23/23 16:26 - 02/23/23 16:56 ¹
Total Recoverable	Analysis	6020A		1	700200	FXG	EET CHI	02/24/23 13:02
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:33
Total/NA	Analysis	SM 2540C		1	700038	CLB	EET CHI	02/24/23 04:12
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:15
Total/NA	Analysis	SM 4500 F C		1	700591	EH	EET CHI	02/28/23 14:13
Total/NA	Analysis	SM 4500 SO4 E		10	700520	LP	EET CHI	02/28/23 12:44

Client Sample ID: MW-08

Date Collected: 02/23/23 14:17

Date Received: 02/24/23 09:31

Lab Sample ID: 500-229829-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 17:40
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:35
Total/NA	Analysis	SM 2540C		1	700232	CLB	EET CHI	02/27/23 05:30
Total/NA	Analysis	SM 4500 CI- E		10	700503	LP	EET CHI	02/28/23 11:15
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		50	700520	LP	EET CHI	02/28/23 12:44

Client Sample ID: MW-09

Date Collected: 02/23/23 15:44

Date Received: 02/24/23 09:31

Lab Sample ID: 500-229829-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 17:43
Total/NA	Prep	7470A			700695	MJG	EET CHI	03/01/23 11:25 - 03/01/23 13:25 ¹
Total/NA	Analysis	7470A		1	700909	MJG	EET CHI	03/02/23 10:37

Eurofins Chicago

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Client Sample ID: MW-09

Lab Sample ID: 500-229829-13

Date Collected: 02/23/23 15:44

Matrix: Water

Date Received: 02/24/23 09:31

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Analysis	SM 2540C		1	700232	CLB	EET CHI	02/27/23 05:33
Total/NA	Analysis	SM 4500 Cl- E		10	700503	LP	EET CHI	02/28/23 11:16
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		10	700520	LP	EET CHI	02/28/23 12:45

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

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

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229829-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23

1

2

3

4

5

6

7

8

9

10

11

12

13

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



ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Allenstein
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 3/28/2023 1:48:11 PM

JOB DESCRIPTION

Will County CCR (RAD)

JOB NUMBER

500-229829-2

Eurofins Chicago

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization



Generated
3/28/2023 1:48:11 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	6
Sample Summary	7
Client Sample Results	8
Definitions	21
QC Association	22
QC Sample Results	24
Chain of Custody	28
Receipt Checklists	34
Chronicle	37
Certification Summary	41
Tracer Carrier Summary	42

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Job ID: 500-229829-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-229829-2

Comments

No additional comments.

Receipt

The samples were received on 2/22/2023 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8° C, 1.1° C and 1.4° C.

RAD

Method 903.0: Radium-226 batch 601827

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-01 (500-229829-1), MW-02 (500-229829-2), MW-03 (500-229829-3), MW-04 (500-229829-4), MW-07 (500-229829-5), MW-14 (500-229829-7), MW-15 (500-229829-8), 1N/1S Duplicate (500-229829-9), MW-11 (500-229829-10), MW-12 (500-229829-11), (LCS 160-601827/2-A), (MB 160-601827/1-A) and (500-229829-C-11-A DU)

Method 903.0: Radium-226 batch 602034

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-08 (500-229829-12), MW-09 (500-229829-13), (LCS 160-602034/2-A), (MB 160-602034/1-A), (680-230903-E-1-A), (680-230903-E-1-B MS) and (680-230903-E-1-C MSD)

Methods 903.0, 9315: Radium-226 batch 602183

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-13 (500-229829-6), (LCS 160-602183/2-A), (MB 160-602183/1-A), (310-250316-D-3-A), (310-250316-D-3-B MS) and (310-250316-D-3-C MSD)

Method 904.0: Radium-228 prep batch 160-602036:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-08 (500-229829-12), MW-09 (500-229829-13), (LCS 160-602036/2-A), (MB 160-602036/1-A), (680-230903-E-1-D), (680-230903-E-1-E MS) and (680-230903-E-1-F MSD)

Method 904.0: Radium-228 batch 601828

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-01 (500-229829-1), MW-02 (500-229829-2), MW-03 (500-229829-3), MW-04 (500-229829-4), MW-07 (500-229829-5), MW-14 (500-229829-7), MW-15 (500-229829-8), 1N/1S Duplicate (500-229829-9), MW-11 (500-229829-10), MW-12 (500-229829-11), (LCS 160-601828/2-A), (MB 160-601828/1-A) and (500-229829-C-11-B DU)

Methods 904.0, 9320: Radium-228 batch 602192

The LCS recovered at (130%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (62-148%) per method requirements. The LCS passes, no further action is required. (LCS 160-602192/2-A)

Methods 904.0, 9320: Radium-228 batch 602192

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Job ID: 500-229829-2 (Continued)

Laboratory: Eurofins Chicago (Continued)

The matrix spike duplicate (MSD) recoveries were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (310-250316-D-3-F MSD)

Methods 904.0, 9320: Radium-228 batch 602192

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-13 (500-229829-6), (LCS 160-602192/2-A), (MB 160-602192/1-A), (310-250316-D-3-D), (310-250316-D-3-E MS) and (310-250316-D-3-F MSD)

Method PrecSep_0:

Method PrecSep_0:

Method PrecSep_0:

Method PrecSep-21:

Method PrecSep-21:

Method PrecSep-21:

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



Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-229829-1	MW-01	Water	02/22/23 09:22	02/22/23 16:40
500-229829-2	MW-02	Water	02/22/23 10:50	02/22/23 16:40
500-229829-3	MW-03	Water	02/22/23 11:59	02/22/23 16:40
500-229829-4	MW-04	Water	02/22/23 13:02	02/22/23 16:40
500-229829-5	MW-07	Water	02/22/23 14:35	02/22/23 16:40
500-229829-6	MW-13	Water	02/21/23 15:24	02/22/23 16:40
500-229829-7	MW-14	Water	02/21/23 16:07	02/22/23 16:40
500-229829-8	MW-15	Water	02/21/23 16:54	02/22/23 16:40
500-229829-9	1N/1S Duplicate	Water	02/21/23 00:00	02/22/23 16:40
500-229829-10	MW-11	Water	02/21/23 14:24	02/22/23 16:40
500-229829-11	MW-12	Water	02/21/23 13:29	02/22/23 16:40
500-229829-12	MW-08	Water	02/23/23 14:17	02/24/23 09:31
500-229829-13	MW-09	Water	02/23/23 15:44	02/24/23 09:31



Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-01

Lab Sample ID: 500-229829-1

Date Collected: 02/22/23 09:22

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.146		0.0766	0.0777	1.00	0.0889	pCi/L	02/28/23 09:01	03/22/23 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		30 - 110					02/28/23 09:01	03/22/23 10:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.192	U	0.249	0.250	1.00	0.544	pCi/L	02/28/23 09:47	03/08/23 12:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		30 - 110					02/28/23 09:47	03/08/23 12:08	1
Y Carrier	83.0		30 - 110					02/28/23 09:47	03/08/23 12:08	1

Method: TAL-STL 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	-0.0457	U	0.261	0.262	5.00	0.544	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-02
Date Collected: 02/22/23 10:50
Date Received: 02/22/23 16:40

Lab Sample ID: 500-229829-2
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.331		0.115	0.119	1.00	0.105	pCi/L	02/28/23 09:01	03/22/23 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		30 - 110					02/28/23 09:01	03/22/23 10:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.644		0.427	0.431	1.00	0.626	pCi/L	02/28/23 09:47	03/08/23 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		30 - 110					02/28/23 09:47	03/08/23 12:09	1
Y Carrier	83.7		30 - 110					02/28/23 09:47	03/08/23 12:09	1

Method: TAL-STL 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	0.974		0.442	0.447	5.00	0.626	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-03

Lab Sample ID: 500-229829-3

Date Collected: 02/22/23 11:59

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.279		0.108	0.111	1.00	0.129	pCi/L	02/28/23 09:01	03/22/23 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110					02/28/23 09:01	03/22/23 10:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.481	U	0.352	0.354	1.00	0.537	pCi/L	02/28/23 09:47	03/08/23 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		30 - 110					02/28/23 09:47	03/08/23 12:09	1
Y Carrier	89.0		30 - 110					02/28/23 09:47	03/08/23 12:09	1

Method: TAL-STL 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	0.760		0.368	0.371	5.00	0.537	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-04

Lab Sample ID: 500-229829-4

Date Collected: 02/22/23 13:02

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.156		0.0845	0.0857	1.00	0.110	pCi/L	02/28/23 09:01	03/22/23 10:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					02/28/23 09:01	03/22/23 10:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.639		0.367	0.372	1.00	0.522	pCi/L	02/28/23 09:47	03/08/23 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					02/28/23 09:47	03/08/23 12:09	1
Y Carrier	83.4		30 - 110					02/28/23 09:47	03/08/23 12:09	1

Method: TAL-STL 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	0.795		0.377	0.382	5.00	0.522	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-07

Lab Sample ID: 500-229829-5

Date Collected: 02/22/23 14:35

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.239		0.0883	0.0909	1.00	0.0818	pCi/L	02/28/23 09:01	03/22/23 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		30 - 110					02/28/23 09:01	03/22/23 10:21	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.475	U	0.326	0.329	1.00	0.479	pCi/L	02/28/23 09:47	03/08/23 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.4		30 - 110					02/28/23 09:47	03/08/23 12:10	1
Y Carrier	84.1		30 - 110					02/28/23 09:47	03/08/23 12:10	1

Method: TAL-STL 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	0.714		0.338	0.341	5.00	0.479	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-13

Lab Sample ID: 500-229829-6

Date Collected: 02/21/23 15:24

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00132	U	0.0917	0.0917	1.00	0.191	pCi/L	03/02/23 09:21	03/27/23 10:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110					03/02/23 09:21	03/27/23 10:07	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00899	U	0.525	0.525	1.00	1.00	pCi/L	03/02/23 09:53	03/13/23 12:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110					03/02/23 09:53	03/13/23 12:02	1
Y Carrier	82.6		30 - 110					03/02/23 09:53	03/13/23 12:02	1

Method: TAL-STL 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	-0.0103	U	0.533	0.533	5.00	1.00	pCi/L		03/28/23 13:07	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-14

Lab Sample ID: 500-229829-7

Date Collected: 02/21/23 16:07

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.438		0.115	0.121	1.00	0.0877	pCi/L	02/28/23 09:01	03/22/23 10:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		30 - 110					02/28/23 09:01	03/22/23 10:22	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.523	U	0.381	0.384	1.00	0.571	pCi/L	02/28/23 09:47	03/08/23 13:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		30 - 110					02/28/23 09:47	03/08/23 13:54	1
Y Carrier	85.6		30 - 110					02/28/23 09:47	03/08/23 13:54	1

Method: TAL-STL 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	0.961		0.398	0.403	5.00	0.571	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-15

Lab Sample ID: 500-229829-8

Date Collected: 02/21/23 16:54

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.219		0.0882	0.0903	1.00	0.0928	pCi/L	02/28/23 09:01	03/22/23 10:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		30 - 110					02/28/23 09:01	03/22/23 10:22	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.738		0.436	0.441	1.00	0.626	pCi/L	02/28/23 09:47	03/08/23 13:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		30 - 110					02/28/23 09:47	03/08/23 13:54	1
Y Carrier	84.5		30 - 110					02/28/23 09:47	03/08/23 13:54	1

Method: TAL-STL 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	0.957		0.445	0.450	5.00	0.626	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: 1N/1S Duplicate

Lab Sample ID: 500-229829-9

Date Collected: 02/21/23 00:00

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.518		0.128	0.136	1.00	0.0883	pCi/L	02/28/23 09:01	03/22/23 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		30 - 110					02/28/23 09:01	03/22/23 10:23	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.239	U	0.299	0.300	1.00	0.497	pCi/L	02/28/23 09:47	03/08/23 11:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.2		30 - 110					02/28/23 09:47	03/08/23 11:50	1
Y Carrier	87.9		30 - 110					02/28/23 09:47	03/08/23 11:50	1

Method: TAL-STL 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	0.757		0.325	0.329	5.00	0.497	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-11

Lab Sample ID: 500-229829-10

Date Collected: 02/21/23 14:24

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.432		0.129	0.135	1.00	0.106	pCi/L	02/28/23 09:01	03/22/23 20:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.9		30 - 110					02/28/23 09:01	03/22/23 20:47	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.14		0.531	0.541	1.00	0.723	pCi/L	02/28/23 09:47	03/08/23 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.9		30 - 110					02/28/23 09:47	03/08/23 11:58	1
Y Carrier	81.9		30 - 110					02/28/23 09:47	03/08/23 11:58	1

Method: TAL-STL 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	1.57		0.546	0.558	5.00	0.723	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-12

Lab Sample ID: 500-229829-11

Date Collected: 02/21/23 13:29

Matrix: Water

Date Received: 02/22/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00895	U	0.0764	0.0764	1.00	0.145	pCi/L	02/28/23 09:01	03/22/23 20:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.1		30 - 110					02/28/23 09:01	03/22/23 20:47	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.175	U	0.374	0.375	1.00	0.651	pCi/L	02/28/23 09:47	03/08/23 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.1		30 - 110					02/28/23 09:47	03/08/23 11:59	1
Y Carrier	83.7		30 - 110					02/28/23 09:47	03/08/23 11:59	1

Method: TAL-STL 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	0.184	U	0.382	0.383	5.00	0.651	pCi/L		03/23/23 16:56	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-08

Lab Sample ID: 500-229829-12

Date Collected: 02/23/23 14:17

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0888	U	0.0887	0.0891	1.00	0.140	pCi/L	03/01/23 09:47	03/23/23 07:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	65.5		30 - 110					03/01/23 09:47	03/23/23 07:55	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.860		0.474	0.481	1.00	0.665	pCi/L	03/01/23 10:09	03/06/23 12:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	65.5		30 - 110					03/01/23 10:09	03/06/23 12:09	1
Y Carrier	84.1		30 - 110					03/01/23 10:09	03/06/23 12:09	1

Method: TAL-STL 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	0.949		0.482	0.489	5.00	0.665	pCi/L		03/23/23 14:09	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-09

Lab Sample ID: 500-229829-13

Date Collected: 02/23/23 15:44

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0722	U	0.0620	0.0624	1.00	0.0903	pCi/L	03/01/23 09:47	03/23/23 07:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.3		30 - 110					03/01/23 09:47	03/23/23 07:57	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.268	U	0.398	0.399	1.00	0.672	pCi/L	03/01/23 10:09	03/06/23 12:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.3		30 - 110					03/01/23 10:09	03/06/23 12:10	1
Y Carrier	84.5		30 - 110					03/01/23 10:09	03/06/23 12:10	1

Method: TAL-STL 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	0.341	U	0.403	0.404	5.00	0.672	pCi/L		03/23/23 14:09	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

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.
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 Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Rad

Prep Batch: 601827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	PrecSep-21	
500-229829-2	MW-02	Total/NA	Water	PrecSep-21	
500-229829-3	MW-03	Total/NA	Water	PrecSep-21	
500-229829-4	MW-04	Total/NA	Water	PrecSep-21	
500-229829-5	MW-07	Total/NA	Water	PrecSep-21	
500-229829-7	MW-14	Total/NA	Water	PrecSep-21	
500-229829-8	MW-15	Total/NA	Water	PrecSep-21	
500-229829-9	1N/1S Duplicate	Total/NA	Water	PrecSep-21	
500-229829-10	MW-11	Total/NA	Water	PrecSep-21	
500-229829-11	MW-12	Total/NA	Water	PrecSep-21	
MB 160-601827/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-601827/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-229829-11 DU	MW-12	Total/NA	Water	PrecSep-21	

Prep Batch: 601828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-1	MW-01	Total/NA	Water	PrecSep_0	
500-229829-2	MW-02	Total/NA	Water	PrecSep_0	
500-229829-3	MW-03	Total/NA	Water	PrecSep_0	
500-229829-4	MW-04	Total/NA	Water	PrecSep_0	
500-229829-5	MW-07	Total/NA	Water	PrecSep_0	
500-229829-7	MW-14	Total/NA	Water	PrecSep_0	
500-229829-8	MW-15	Total/NA	Water	PrecSep_0	
500-229829-9	1N/1S Duplicate	Total/NA	Water	PrecSep_0	
500-229829-10	MW-11	Total/NA	Water	PrecSep_0	
500-229829-11	MW-12	Total/NA	Water	PrecSep_0	
MB 160-601828/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-601828/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-229829-11 DU	MW-12	Total/NA	Water	PrecSep_0	

Prep Batch: 602034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-12	MW-08	Total/NA	Water	PrecSep-21	
500-229829-13	MW-09	Total/NA	Water	PrecSep-21	
MB 160-602034/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602034/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 602036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-12	MW-08	Total/NA	Water	PrecSep_0	
500-229829-13	MW-09	Total/NA	Water	PrecSep_0	
MB 160-602036/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602036/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 602183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-6	MW-13	Total/NA	Water	PrecSep-21	
MB 160-602183/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602183/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Rad

Prep Batch: 602192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229829-6	MW-13	Total/NA	Water	PrecSep_0	
MB 160-602192/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602192/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-601827/1-A
Matrix: Water
Analysis Batch: 604715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601827

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.008821	U	0.0567	0.0567	1.00	0.110	pCi/L	02/28/23 09:01	03/22/23 10:18	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	30 - 110					02/28/23 09:01	03/22/23 10:18	1
	89.5									

Lab Sample ID: LCS 160-601827/2-A
Matrix: Water
Analysis Batch: 604715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601827

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	12.40		1.26	1.00	0.107	pCi/L	109	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	30 - 110						
	88.4								

Lab Sample ID: 500-229829-11 DU
Matrix: Water
Analysis Batch: 604712

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 601827

Analyte	Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.00895	U	0.1097	U	0.0855	1.00	0.125	pCi/L	0.62	1
Carrier	DU	DU	Limits							
Ba Carrier	%Yield	Qualifier	30 - 110							
	75.1									

Lab Sample ID: MB 160-602034/1-A
Matrix: Water
Analysis Batch: 604790

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602034

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03605	U	0.0486	0.0487	1.00	0.0816	pCi/L	03/01/23 09:47	03/23/23 07:54	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	30 - 110					03/01/23 09:47	03/23/23 07:54	1
	88.7									

Lab Sample ID: LCS 160-602034/2-A
Matrix: Water
Analysis Batch: 604790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602034

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.64		1.18	1.00	0.0735	pCi/L	103	75 - 125

Euromins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-602034/2-A
Matrix: Water
Analysis Batch: 604790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602034

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.7		30 - 110

Lab Sample ID: MB 160-602183/1-A
Matrix: Water
Analysis Batch: 605096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602183

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01097	U	0.0446	0.0446	1.00	0.0873	pCi/L	03/02/23 09:21	03/27/23 10:07	1
Carrier	MB	MB	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		30 - 110					03/02/23 09:21	03/27/23 10:07	1

Lab Sample ID: LCS 160-602183/2-A
Matrix: Water
Analysis Batch: 605096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602183

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	12.27		1.26	1.00	0.132	pCi/L	108	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	85.6		30 - 110						

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-601828/1-A
Matrix: Water
Analysis Batch: 602826

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601828

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1520	U	0.310	0.310	1.00	0.540	pCi/L	02/28/23 09:47	03/08/23 12:08	1
Carrier	MB	MB	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		30 - 110					02/28/23 09:47	03/08/23 12:08	1
Y Carrier	83.7		30 - 110					02/28/23 09:47	03/08/23 12:08	1

Lab Sample ID: LCS 160-601828/2-A
Matrix: Water
Analysis Batch: 602861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601828

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	8.13	9.861		1.32	1.00	0.512	pCi/L	121	75 - 125

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-601828/2-A
Matrix: Water
Analysis Batch: 602861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601828

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	88.4		30 - 110
Y Carrier	85.2		30 - 110

Lab Sample ID: 500-229829-11 DU
Matrix: Water
Analysis Batch: 602825

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 601828

Analyte	Sample		DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual						
Radium-228	0.175	U	0.02528	U	0.393	1.00	0.717	pCi/L	0.20	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	75.1		30 - 110
Y Carrier	84.9		30 - 110

Lab Sample ID: MB 160-602036/1-A
Matrix: Water
Analysis Batch: 602566

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602036

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.03918	U	0.338	0.338	1.00	0.613	pCi/L	03/01/23 10:09	03/06/23 12:09	1

	MB	MB		Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits			
Ba Carrier	88.7		30 - 110	03/01/23 10:09	03/06/23 12:09	1
Y Carrier	84.9		30 - 110	03/01/23 10:09	03/06/23 12:09	1

Lab Sample ID: LCS 160-602036/2-A
Matrix: Water
Analysis Batch: 602566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602036

Analyte	Spike Added	LCS		Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual						
Radium-228	8.14	9.742		1.30	1.00	0.487	pCi/L	120	75 - 125

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	92.7		30 - 110
Y Carrier	84.5		30 - 110

Lab Sample ID: MB 160-602192/1-A
Matrix: Water
Analysis Batch: 603500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602192

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	0.008484	U	0.285	0.285	1.00	0.530	pCi/L	03/02/23 09:53	03/13/23 12:02	1

Euofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-602192/1-A
Matrix: Water
Analysis Batch: 603500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602192

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	94.4		30 - 110
Y Carrier	85.2		30 - 110

Prepared	Analyzed	Dil Fac
03/02/23 09:53	03/13/23 12:02	1
03/02/23 09:53	03/13/23 12:02	1

Lab Sample ID: LCS 160-602192/2-A
Matrix: Water
Analysis Batch: 603500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602192

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
									75 - 125
Radium-228	8.12	10.59		1.41	1.00	0.496	pCi/L	130	75 - 125

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	85.6		30 - 110
Y Carrier	86.0		30 - 110

Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax. 708-534-5211



Chain of Custody Record



Environment Testing

Client Information Client Contact: Patrick Allenstein	500-229829 COC	Sampler: <i>IAN JOHN HOWKESON</i>	Lab PM: Mockler Diana J	Carrier Tracking No(s)	COC No: 500-110232-45943 1
Company: KPRG and Associates Inc	PWSID	Phone: <i>630 325 1300</i>	E-Mail: Diana.Mockler@et.eurofinsus.com	State of Origin	Page Page 1 of 1

Address: 14665 West Lisbon Road Suite 1A	Due Date Requested	Analysis Requested				Job #: <i>500-229829</i>
City: Brookfield	TAT Requested (days):					Preservation Codes A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J - DI Water V MCAA K - EDTA W - pH 4-5 L EDA Y - Trizma Z other (specify)
State, Zip WI 53005	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone	PO #: 4502116506					
Email patricka@kprginc.com	WO #:					
Project Name: Will County 1N/1S Event Desc Quarterly GW Monitoring	Project #: 50011609					

Site: Illinois <i>COK</i>	SSOW#:					Total Number of Containers 903.0, 904.0 6010C, 6020A, 7470A 2540C, 4500_F_C, SM4500_CLE, SM4500_SO4_E
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	
					Perform MS/MSD (Yes or No)	

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Field Filtered	MS/MSD	D	D	N	Total Containers	Special Instructions/Note
MW-01	2-22-23	09:22	G	Water	N	N	X	X	X	5	
MW-02	2-22-23	10:50	G	Water	N	N	X	X	X	5	
MW-03	2-22-23	11:59	G	Water	N	N	X	X	X	5	
MW-04	2-22-23	13:02	G	Water	N	N	X	X	X	5	
MW-07	2-22-23	14:35	G	Water	N	N	X	X	X	5	
MW-08				Water							
MW-09				Water							
MW-13	2-21-23	15:24	G	Water	N	N	X	X	X	5	
MW-14	2-21-23	16:07	G	Water	N	N	X	X	X	5	
MW-15	2-21-23	16:54	G	Water	N	N	X	X	X	5	
1N/1S Duplicate	2-21-23	—	G	Water	N	N	X	X	X	5	

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	Date	Time	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date/Time: <i>2-22-23 16:40</i>	Company: <i>KPRG</i>	Received by: <i>[Signature]</i>
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks <i>(1.0 - 0.8) (2.1 - 1.1)</i>	

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

Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534 5211

Chain of Custody Record



Eurofins Testing

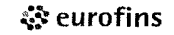
Client Information		Sampler <i>IAN JOHN HORTON</i>	Lab PM Mockler Diana J	Carrier Tracking No(s)	COCC No 500-110231-45942 1															
Client Contact Patrick Allenstein		Phone <i>630 325 1300</i>	E-Mail Diana Mockler@et.eurofinsus.com	State of Origin	Page: Page 1 of 1															
Company KPRG and Associates Inc		PWSID	Analysis Requested																	
Address 14665 West Lisbon Road Suite 1A		Due Date Requested.	<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>Total Number of Containers</td> </tr> <tr> <td>City Brookfield</td> <td>TAT Requested (days)</td> <td></td> </tr> <tr> <td>State Zip WI 53005</td> <td>Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td></td> </tr> <tr> <td>Phone</td> <td>PO # 4502116506</td> <td></td> </tr> <tr> <td>Email patricka@kprginc.com</td> <td>WO #</td> <td></td> </tr> </table>			Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	City Brookfield	TAT Requested (days)		State Zip WI 53005	Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No		Phone	PO # 4502116506		Email patricka@kprginc.com	WO #	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers																		
City Brookfield	TAT Requested (days)																			
State Zip WI 53005	Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No																			
Phone	PO # 4502116506																			
Email patricka@kprginc.com	WO #																			
Preservation Codes																				
A HCL M Hexane																				
B NaOH N None																				
C Zn Acetate O AsNaO2																				
D Nitric Acid P Na2O4S																				
E NaHSO4 Q Na2SO3																				
F MeOH R Na2S2O3																				
G Amchlor S H2SO4																				
H Ascorbic Acid T TSP Dodecahydrate																				
I Ice U Acetone																				
J DI Water V MCAA																				
K EDTA W pH 4-5																				
L EDA Y Trizma																				
Z other (specify)																				
Other																				
Job # <i>500-229829</i>																				
Project Name Will County 2S/3S Event Desc: Quarterly GW Monitoring		Project # 50011609																		
Site Illinois		SSOW#																		
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note											
<i>CCR</i>																				
<i>10</i>		<i>2-21-23</i>	<i>14:24</i>	<i>G</i>	Water	<i>N</i>	<i>N</i>	<i>X</i>	<i>X</i>	<i>X</i>										
<i>11</i>		<i>2-21-23</i>	<i>13:29</i>	<i>G</i>	Water	<i>N</i>	<i>N</i>	<i>X</i>	<i>X</i>	<i>X</i>										
2S/3S Duplicate					Water															
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)														
<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						<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:		Date	Time	Method of Shipment:																
<i>AK</i>		<i>2-22-23</i>	<i>16:40</i>	<i>KPRG</i>		<i>2-22-23 16:40</i>														
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:														
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:														
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks. <i>10 - 0.8</i>																

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax: 708-534-5211



Chain of Custody Record



Environment Testing

Client Information	500-229829 COC	ampler: <i>JAN JOHN HANLSON</i>	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-110232-45943.1
Client Contact: Patrick Allenstein	none: <i>630 325 1300</i>	E-Mail: Diana Mockler@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1	Job #: <i>500-229829</i>

Company: KPRG and Associates, Inc.	PWSID:	Analysis Requested			
Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested	Field Filtered Sample (Yes or No)	903.0, 904.0	6010C, 6020A, 7470A	2540C, 4500_L_C, SM4500_CLE, SM4500_S04_E
City: Brookfield	TAT Requested (days):				
State, Zip: WI, 53005	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No				
Phone:	PO #: 4502116506				
Email: patricka@kprginc.com	WO #:				
Project Name: Will County 1N/1S Event Desc. Quarterly GW Monitoring <i>CCR</i>	Project #: 50011609				
Site: Illinois	SSOW#:	Total Number of containers	Preservation Codes:		
A - HCL			M - Hexane		
B - NaOH			N - None		
C - Zn Acetate			O - AsNaO2		
D - Nitric Acid			P - Na2O4S		
E - NaHSO4			Q - Na2SO3		
F - MeOH			R - Na2S2O3		
G - Amchlor			S - H2SO4		
H - Ascorbic Acid			T - TSP Dodecahydrate		
I - Ice			U - Acetone		
J - DI Water			V - MCAA		
K - EDTA			W - pH 4-5		
L - EDA			Y - Trizma		
Other:			Z - other (specify)		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	903.0, 904.0	6010C, 6020A, 7470A	2540C, 4500_L_C, SM4500_CLE, SM4500_S04_E	Special Instructions/Note:
MW-01	—	—	—	Water					
MW-02	—	—	—	Water					
MW-03	—	—	—	Water					
MW-04	—	—	—	Water					
MW-07	—	—	—	Water					
<i>12</i> MW-08	<i>2-23-23</i>	<i>14:17</i>	<i>G</i>	Water	<i>NN</i>	<i>X</i>	<i>X</i>	<i>X</i>	
<i>13</i> MW-09	<i>2-23-23</i>	<i>15:44</i>	<i>G</i>	Water	<i>NN</i>	<i>X</i>	<i>X</i>	<i>X</i>	
MW-13	—	—	—	Water					
MW-14	—	—	—	Water					
MW-15	—	—	—	Water					
1N/1S Duplicate	—	—	—	Water					

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.

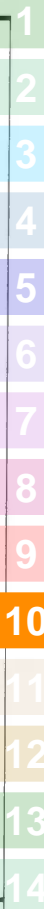
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date/Time: <i>2-23-23 09:31</i>	Company: <i>KPRG</i>	Received by: <i>[Signature]</i>
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: <i>1.6 to 1.4</i>
--	-----------------	---

Chain of Custody Record



Client Information (Sub Contract Lab)				Sampler:							
Client Contact: Shipping/Receiving				Lab PM: Mockler, Diana J		Camer Tracking No(s): 500-171181.1					
Company: TestAmerica Laboratories, Inc.				E-Mail: Diana.Mockler@eurofins.com		Page: 1 of 2					
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045				State of Origin: Illinois		Job #: 500-229829-2					
Phone: 314-298-8566(Tel) 314-298-8757(Fax)				Accreditations Required (See note): NELAP - Illinois		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - NaHSO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - Trizma Y - EDTA Z - other (specify)					
Project Name: Will County CCR (RAD)				Project #: 50011609		Special Instructions/Note:					
Site: NRG Midwest Generation Will County				SSOW#:		Total Number of Containers					
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra26Ra228 GPPC	Analysis Requested	Special Instructions/Note
MW-01 (500-229829-1)	2/22/23	09:22 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-02 (500-229829-2)	2/22/23	10:50 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-03 (500-229829-3)	2/22/23	11:59 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-04 (500-229829-4)	2/22/23	13:02 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-07 (500-229829-5)	2/22/23	14:35 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-13 (500-229829-6)	2/21/23	15:24 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-14 (500-229829-7)	2/21/23	16:07 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-15 (500-229829-8)	2/21/23	16:54 Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
1N/1S Duplicate (500-229829-9)	2/21/23	Central	Water	Water	X	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
<p>Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.</p>											
Possible Hazard Identification											
<input type="checkbox"/> Unconfirmed <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) _____ Primary Deliverable Rank: 2											
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____											
Relinquished by: <i>STEPHANIE HUNDMAN</i> Date/Time: <i>2/23/23 1515</i> Company: <i>EEIA</i>											
Relinquished by: _____ Date/Time: _____ Company: _____											
Relinquished by: _____ Date/Time: _____ Company: _____											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No _____ Custody Seal No.:											
Cooler Temperature(s) °C and Other Remarks:											



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:							
Shipping/Receiving		Phone:	Mockler, Diana J		500-171205.1							
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@et.eurofins.com		State of Origin:	Page: 1 of 1							
Address: 13715 Rider Trail North,		Due Date Requested:	Accreditations Required (See note):									
City:		3/14/2023	NELAP - Illinois									
Earth City:		TAT Requested (days):	Analysis Requested									
State, Zip:												
MO, 63045		PO #:										
Phone:		WO #:										
314-298-8566(Tel) 314-298-8757(Fax)		Project #:										
Email:		50011609										
Site:	NRG Midwest Generation Will County	SSOW#:										
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wast/soil, B=biotissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:
MW-08 (500-229829-12)		2/23/23	14:17 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
MW-09 (500-229829-13)		2/23/23	15:44 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: <i>Stephanie Humandy</i> Date/Time: 2/24/23 10:00 Company: <i>EEIA</i></p> <p>Relinquished by: FED EX Date/Time: _____ Company: _____</p> <p>Relinquished by: _____ Date/Time: _____ Company: _____</p> <p>Custody Seals Intact: _____ Custody Seal No.: _____</p> <p>Δ Yes Δ No</p>												
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements: _____</p> <p>Method of Shipment: _____</p> <p>Received by: FED EX Date/Time: _____ Company: _____</p> <p>Received by: <i>Silvia Worthington</i> Date/Time: FEB 27 2023 08:55 Company: <i>EEIA</i></p> <p>Received by: _____ Date/Time: _____ Company: _____</p> <p>Cooler Temperature(s) °C and Other Remarks: _____</p>												



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229829-2

Login Number: 229829

List Number: 1

Creator: James, Jeff A

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,1.1,1.4
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229829-2

Login Number: 229829

List Number: 2

Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis

List Creation: 02/27/23 12:20 PM

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



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229829-2

Login Number: 229829

List Number: 3

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 02/28/23 10:05 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <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	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-01

Lab Sample ID: 500-229829-1

Date Collected: 02/22/23 09:22

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:20
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 12:08
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-02

Lab Sample ID: 500-229829-2

Date Collected: 02/22/23 10:50

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:20
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 12:09
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-03

Lab Sample ID: 500-229829-3

Date Collected: 02/22/23 11:59

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:20
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 12:09
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-04

Lab Sample ID: 500-229829-4

Date Collected: 02/22/23 13:02

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:20
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 12:09
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-07

Lab Sample ID: 500-229829-5

Date Collected: 02/22/23 14:35

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:21
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 12:10
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-13

Lab Sample ID: 500-229829-6

Date Collected: 02/21/23 15:24

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			602183	DJP	EET SL	03/02/23 09:21
Total/NA	Analysis	903.0		1	605096	FLC	EET SL	03/27/23 10:07
Total/NA	Prep	PrecSep_0			602192	DJP	EET SL	03/02/23 09:53
Total/NA	Analysis	904.0		1	603500	FLC	EET SL	03/13/23 12:02
Total/NA	Analysis	Ra226_Ra228		1	605252	EMH	EET SL	03/28/23 13:07

Client Sample ID: MW-14

Lab Sample ID: 500-229829-7

Date Collected: 02/21/23 16:07

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:22
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 13:54
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-15

Lab Sample ID: 500-229829-8

Date Collected: 02/21/23 16:54

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:22
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602826	FLC	EET SL	03/08/23 13:54
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: 1N/1S Duplicate

Lab Sample ID: 500-229829-9

Date Collected: 02/21/23 00:00

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 10:23
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602861	FLC	EET SL	03/08/23 11:50
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-11

Lab Sample ID: 500-229829-10

Date Collected: 02/21/23 14:24

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 20:47
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602825	FLC	EET SL	03/08/23 11:58
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-12

Lab Sample ID: 500-229829-11

Date Collected: 02/21/23 13:29

Matrix: Water

Date Received: 02/22/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			601827	DJP	EET SL	02/28/23 09:01
Total/NA	Analysis	903.0		1	604712	FLC	EET SL	03/22/23 20:47
Total/NA	Prep	PrecSep_0			601828	DJP	EET SL	02/28/23 09:47
Total/NA	Analysis	904.0		1	602825	FLC	EET SL	03/08/23 11:59
Total/NA	Analysis	Ra226_Ra228		1	604834	SCB	EET SL	03/23/23 16:56

Client Sample ID: MW-08

Lab Sample ID: 500-229829-12

Date Collected: 02/23/23 14:17

Matrix: Water

Date Received: 02/24/23 09:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			602034	DJP	EET SL	03/01/23 09:47
Total/NA	Analysis	903.0		1	604790	FLC	EET SL	03/23/23 07:55
Total/NA	Prep	PrecSep_0			602036	DJP	EET SL	03/01/23 10:09
Total/NA	Analysis	904.0		1	602566	SCB	EET SL	03/06/23 12:09
Total/NA	Analysis	Ra226_Ra228		1	604811	SCB	EET SL	03/23/23 14:09

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Client Sample ID: MW-09

Lab Sample ID: 500-229829-13

Date Collected: 02/23/23 15:44

Matrix: Water

Date Received: 02/24/23 09:31

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep-21			602034	DJP	EET SL	03/01/23 09:47
Total/NA	Analysis	903.0		1	604790	FLC	EET SL	03/23/23 07:57
Total/NA	Prep	PrecSep_0			602036	DJP	EET SL	03/01/23 10:09
Total/NA	Analysis	904.0		1	602566	SCB	EET SL	03/06/23 12:10
Total/NA	Analysis	Ra226_Ra228		1	604811	SCB	EET SL	03/23/23 14:09

Laboratory References:

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



Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-23

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

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
500-229829-1	MW-01	83.1	
500-229829-2	MW-02	69.8	
500-229829-3	MW-03	91.5	
500-229829-4	MW-04	88.1	
500-229829-5	MW-07	88.4	
500-229829-6	MW-13	90.7	
500-229829-7	MW-14	92.1	
500-229829-8	MW-15	90.4	
500-229829-9	1N/1S Duplicate	86.2	
500-229829-10	MW-11	68.9	
500-229829-11	MW-12	79.1	
500-229829-11 DU	MW-12	75.1	
500-229829-12	MW-08	65.5	
500-229829-13	MW-09	76.3	
LCS 160-601827/2-A	Lab Control Sample	88.4	
LCS 160-602034/2-A	Lab Control Sample	92.7	
LCS 160-602183/2-A	Lab Control Sample	85.6	
MB 160-601827/1-A	Method Blank	89.5	
MB 160-602034/1-A	Method Blank	88.7	
MB 160-602183/1-A	Method Blank	94.4	

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits)	
		Ba (30-110)	Y (30-110)
500-229829-1	MW-01	83.1	83.0
500-229829-2	MW-02	69.8	83.7
500-229829-3	MW-03	91.5	89.0
500-229829-4	MW-04	88.1	83.4
500-229829-5	MW-07	88.4	84.1
500-229829-6	MW-13	90.7	82.6
500-229829-7	MW-14	92.1	85.6
500-229829-8	MW-15	90.4	84.5
500-229829-9	1N/1S Duplicate	86.2	87.9
500-229829-10	MW-11	68.9	81.9
500-229829-11	MW-12	79.1	83.7
500-229829-11 DU	MW-12	75.1	84.9
500-229829-12	MW-08	65.5	84.1
500-229829-13	MW-09	76.3	84.5
LCS 160-601828/2-A	Lab Control Sample	88.4	85.2
LCS 160-602036/2-A	Lab Control Sample	92.7	84.5
LCS 160-602192/2-A	Lab Control Sample	85.6	86.0
MB 160-601828/1-A	Method Blank	89.5	83.7
MB 160-602036/1-A	Method Blank	88.7	84.9
MB 160-602192/1-A	Method Blank	94.4	85.2

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229829-2

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

1

2

3

4

5

6

7

8

9

10

11

12

13

14

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Patrick Allenstein
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 3/16/2023 9:20:52 AM

JOB DESCRIPTION

Will County CCR
Quarterly GW Monitoring

JOB NUMBER

500-229879-1

Eurofins Chicago

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization



Generated
3/16/2023 9:20:52 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	12
QC Association	13
QC Sample Results	15
Chain of Custody	18
Receipt Checklists	19
Chronicle	20
Certification Summary	22

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Job ID: 500-229879-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-229879-1**

Receipt

The samples were received on 2/24/2023 9:31 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.1° C and 1.4° C.

Metals

Method 6020A: The low level continuing calibration verification (ICVL/CCVL) associated with batch 500-700664 recovered above the upper control limit for Beryllium. The samples associated with this ICVL/CCVL were non-detects for the affected analyte; therefore, the data have been reported.

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.



Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

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:

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

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-229879-1	MW-05	Water	02/23/23 09:35	02/24/23 09:31
500-229879-2	MW-06	Water	02/23/23 11:21	02/24/23 09:31
500-229879-3	MW-09	Water	02/23/23 15:44	02/24/23 09:31
500-229879-4	MW-10	Water	02/23/23 12:52	02/24/23 09:31
500-229879-5	2S/3S Duplicate	Water	02/23/23 00:00	02/24/23 09:31

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

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: MW-05

Lab Sample ID: 500-229879-1

Date Collected: 02/23/23 09:35

Matrix: Water

Date Received: 02/24/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 18:11	1
Arsenic	0.0018		0.0010		mg/L		02/27/23 08:21	02/28/23 18:11	1
Barium	0.058		0.0025		mg/L		02/27/23 08:21	02/28/23 18:11	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 18:11	1
Boron	6.3		1.0		mg/L		02/27/23 08:21	03/01/23 13:42	20
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:11	1
Calcium	120		0.20		mg/L		02/27/23 08:21	02/28/23 18:11	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 18:11	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 18:11	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:11	1
Lithium	0.012		0.010		mg/L		02/27/23 08:21	02/28/23 18:11	1
Molybdenum	0.067		0.0050		mg/L		02/27/23 08:21	02/28/23 18:11	1
Selenium	0.021		0.0025		mg/L		02/27/23 08:21	02/28/23 18:11	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 18:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00027		0.00020		mg/L		03/03/23 14:45	03/06/23 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100		10		mg/L			03/02/23 03:01	1
Chloride (SM 4500 Cl- E)	26		2.0		mg/L			03/01/23 11:37	1
Fluoride (SM 4500 F C)	0.43		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	430		250		mg/L			03/02/23 12:57	50

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: MW-06

Lab Sample ID: 500-229879-2

Date Collected: 02/23/23 11:21

Matrix: Water

Date Received: 02/24/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 18:14	1
Arsenic	0.0023		0.0010		mg/L		02/27/23 08:21	02/28/23 18:14	1
Barium	0.086		0.0025		mg/L		02/27/23 08:21	02/28/23 18:14	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 18:14	1
Boron	3.0		0.50		mg/L		02/27/23 08:21	03/01/23 13:45	10
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:14	1
Calcium	110		0.20		mg/L		02/27/23 08:21	02/28/23 18:14	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 18:14	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 18:14	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:14	1
Lithium	0.016		0.010		mg/L		02/27/23 08:21	02/28/23 18:14	1
Molybdenum	0.023		0.0050		mg/L		02/27/23 08:21	02/28/23 18:14	1
Selenium	0.022		0.0025		mg/L		02/27/23 08:21	02/28/23 18:14	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 18:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/03/23 14:45	03/06/23 10:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	680		10		mg/L			03/02/23 03:07	1
Chloride (SM 4500 Cl- E)	17		10		mg/L			03/06/23 12:31	5
Fluoride (SM 4500 F C)	0.35		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	190		50		mg/L			03/02/23 12:58	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: MW-09

Lab Sample ID: 500-229879-3

Date Collected: 02/23/23 15:44

Matrix: Water

Date Received: 02/24/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 18:18	1
Arsenic	0.0086		0.0010		mg/L		02/27/23 08:21	02/28/23 18:18	1
Barium	0.029		0.0025		mg/L		02/27/23 08:21	02/28/23 18:18	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 18:18	1
Boron	2.0		0.25		mg/L		02/27/23 08:21	03/01/23 13:49	5
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:18	1
Calcium	38		0.20		mg/L		02/27/23 08:21	02/28/23 18:18	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 18:18	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 18:18	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:18	1
Lithium	<0.010		0.010		mg/L		02/27/23 08:21	02/28/23 18:18	1
Molybdenum	0.065		0.0050		mg/L		02/27/23 08:21	02/28/23 18:18	1
Selenium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 18:18	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 18:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/03/23 14:45	03/06/23 10:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	680		10		mg/L			03/02/23 03:09	1
Chloride (SM 4500 Cl- E)	190		40		mg/L			03/06/23 12:32	20
Fluoride (SM 4500 F C)	0.53		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	210		50		mg/L			03/02/23 12:58	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: MW-10
Date Collected: 02/23/23 12:52
Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 18:21	1
Arsenic	0.015		0.0010		mg/L		02/27/23 08:21	02/28/23 18:21	1
Barium	0.12		0.0025		mg/L		02/27/23 08:21	02/28/23 18:21	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 18:21	1
Boron	3.7		0.50		mg/L		02/27/23 08:21	03/01/23 13:54	10
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:21	1
Calcium	140		0.20		mg/L		02/27/23 08:21	02/28/23 18:21	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 18:21	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 18:21	1
Lead	0.00080		0.00050		mg/L		02/27/23 08:21	02/28/23 18:21	1
Lithium	0.016		0.010		mg/L		02/27/23 08:21	02/28/23 18:21	1
Molybdenum	0.073		0.0050		mg/L		02/27/23 08:21	02/28/23 18:21	1
Selenium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 18:21	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 18:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/03/23 14:45	03/06/23 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	930		10		mg/L			03/02/23 03:12	1
Chloride (SM 4500 Cl- E)	140		20		mg/L			03/06/23 12:32	10
Fluoride (SM 4500 F C)	0.71		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	250		50		mg/L			03/02/23 12:58	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-229879-5

Date Collected: 02/23/23 00:00

Matrix: Water

Date Received: 02/24/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 18:24	1
Arsenic	0.0018		0.0010		mg/L		02/27/23 08:21	02/28/23 18:24	1
Barium	0.059		0.0025		mg/L		02/27/23 08:21	02/28/23 18:24	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 18:24	1
Boron	5.4		1.0		mg/L		02/27/23 08:21	03/01/23 13:58	20
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:24	1
Calcium	120		0.20		mg/L		02/27/23 08:21	02/28/23 18:24	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 18:24	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 18:24	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 18:24	1
Lithium	0.012		0.010		mg/L		02/27/23 08:21	02/28/23 18:24	1
Molybdenum	0.066		0.0050		mg/L		02/27/23 08:21	02/28/23 18:24	1
Selenium	0.022		0.0025		mg/L		02/27/23 08:21	02/28/23 18:24	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 18:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/03/23 14:45	03/06/23 10:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100		10		mg/L			03/02/23 03:14	1
Chloride (SM 4500 Cl- E)	23		20		mg/L			03/06/23 12:32	10
Fluoride (SM 4500 F C)	0.43		0.10		mg/L			03/02/23 13:02	1
Sulfate (SM 4500 SO4 E)	490		100		mg/L			03/02/23 13:13	20

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

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 Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Metals

Prep Batch: 700282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total Recoverable	Water	3005A	
500-229879-2	MW-06	Total Recoverable	Water	3005A	
500-229879-3	MW-09	Total Recoverable	Water	3005A	
500-229879-4	MW-10	Total Recoverable	Water	3005A	
500-229879-5	2S/3S Duplicate	Total Recoverable	Water	3005A	
MB 500-700282/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-700282/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 700664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total Recoverable	Water	6020A	700282
500-229879-2	MW-06	Total Recoverable	Water	6020A	700282
500-229879-3	MW-09	Total Recoverable	Water	6020A	700282
500-229879-4	MW-10	Total Recoverable	Water	6020A	700282
500-229879-5	2S/3S Duplicate	Total Recoverable	Water	6020A	700282
MB 500-700282/1-A	Method Blank	Total Recoverable	Water	6020A	700282
LCS 500-700282/2-A	Lab Control Sample	Total Recoverable	Water	6020A	700282

Analysis Batch: 700848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total Recoverable	Water	6020A	700282
500-229879-2	MW-06	Total Recoverable	Water	6020A	700282
500-229879-3	MW-09	Total Recoverable	Water	6020A	700282
500-229879-4	MW-10	Total Recoverable	Water	6020A	700282
500-229879-5	2S/3S Duplicate	Total Recoverable	Water	6020A	700282

Prep Batch: 701108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	7470A	
500-229879-2	MW-06	Total/NA	Water	7470A	
500-229879-3	MW-09	Total/NA	Water	7470A	
500-229879-4	MW-10	Total/NA	Water	7470A	
500-229879-5	2S/3S Duplicate	Total/NA	Water	7470A	
MB 500-701108/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-701108/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 701281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	7470A	701108
500-229879-2	MW-06	Total/NA	Water	7470A	701108
500-229879-3	MW-09	Total/NA	Water	7470A	701108
500-229879-4	MW-10	Total/NA	Water	7470A	701108
500-229879-5	2S/3S Duplicate	Total/NA	Water	7470A	701108
MB 500-701108/12-A	Method Blank	Total/NA	Water	7470A	701108
LCS 500-701108/13-A	Lab Control Sample	Total/NA	Water	7470A	701108

General Chemistry

Analysis Batch: 700692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	SM 4500 Cl- E	

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

General Chemistry (Continued)

Analysis Batch: 700692 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-700692/56	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-700692/57	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 700763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	SM 2540C	
500-229879-2	MW-06	Total/NA	Water	SM 2540C	
500-229879-3	MW-09	Total/NA	Water	SM 2540C	
500-229879-4	MW-10	Total/NA	Water	SM 2540C	
500-229879-5	2S/3S Duplicate	Total/NA	Water	SM 2540C	
MB 500-700763/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-700763/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-229879-1 DU	MW-05	Total/NA	Water	SM 2540C	

Analysis Batch: 700905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-229879-2	MW-06	Total/NA	Water	SM 4500 SO4 E	
500-229879-3	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-229879-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-229879-5	2S/3S Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-700905/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-700905/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 700911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	SM 4500 F C	
500-229879-2	MW-06	Total/NA	Water	SM 4500 F C	
500-229879-3	MW-09	Total/NA	Water	SM 4500 F C	
500-229879-4	MW-10	Total/NA	Water	SM 4500 F C	
500-229879-5	2S/3S Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-700911/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-700911/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-700911/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-700911/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 701276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-2	MW-06	Total/NA	Water	SM 4500 Cl- E	
500-229879-3	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-229879-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-229879-5	2S/3S Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-701276/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-701276/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-700282/1-A
Matrix: Water
Analysis Batch: 700664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 700282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/27/23 08:21	02/28/23 17:12	1
Arsenic	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Barium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 17:12	1
Beryllium	<0.0010	^1+ ^+	0.0010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Boron	<0.050		0.050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Cadmium	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Calcium	<0.20		0.20		mg/L		02/27/23 08:21	02/28/23 17:12	1
Chromium	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Cobalt	<0.0010		0.0010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Lead	<0.00050		0.00050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Lithium	<0.010		0.010		mg/L		02/27/23 08:21	02/28/23 17:12	1
Molybdenum	<0.0050		0.0050		mg/L		02/27/23 08:21	02/28/23 17:12	1
Selenium	<0.0025		0.0025		mg/L		02/27/23 08:21	02/28/23 17:12	1
Thallium	<0.0020		0.0020		mg/L		02/27/23 08:21	02/28/23 17:12	1

Lab Sample ID: LCS 500-700282/2-A
Matrix: Water
Analysis Batch: 700664

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 700282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	0.500	0.535		mg/L		107	80 - 120
Arsenic	0.100	0.0952		mg/L		95	80 - 120
Barium	2.00	2.05		mg/L		102	80 - 120
Beryllium	0.0500	0.0479	^1+ ^+	mg/L		96	80 - 120
Boron	1.00	0.983		mg/L		98	80 - 120
Cadmium	0.0500	0.0497		mg/L		99	80 - 120
Calcium	10.0	9.80		mg/L		98	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Lithium	0.500	0.481		mg/L		96	80 - 120
Molybdenum	1.00	0.964		mg/L		96	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.107		mg/L		107	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-701108/12-A
Matrix: Water
Analysis Batch: 701281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 701108

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/03/23 14:45	03/06/23 10:23	1

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

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

Lab Sample ID: LCS 500-701108/13-A
Matrix: Water
Analysis Batch: 701281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 701108

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00198	0.00214		mg/L		108	80 - 120

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

Lab Sample ID: MB 500-700763/1
Matrix: Water
Analysis Batch: 700763

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			03/02/23 02:49	1

Lab Sample ID: LCS 500-700763/2
Matrix: Water
Analysis Batch: 700763

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	246		mg/L		98	80 - 120

Lab Sample ID: 500-229879-1 DU
Matrix: Water
Analysis Batch: 700763

Client Sample ID: MW-05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1040		mg/L		5	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-700692/56
Matrix: Water
Analysis Batch: 700692

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			03/01/23 11:31	1

Lab Sample ID: LCS 500-700692/57
Matrix: Water
Analysis Batch: 700692

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.0		mg/L		100	85 - 115

Lab Sample ID: MB 500-701276/16
Matrix: Water
Analysis Batch: 701276

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			03/06/23 12:29	1

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-701276/17
Matrix: Water
Analysis Batch: 701276

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.8		mg/L		99	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-700911/3
Matrix: Water
Analysis Batch: 700911

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/02/23 13:02	1

Lab Sample ID: MB 500-700911/31
Matrix: Water
Analysis Batch: 700911

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/02/23 13:02	1

Lab Sample ID: LCS 500-700911/32
Matrix: Water
Analysis Batch: 700911

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

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

Lab Sample ID: LCS 500-700911/4
Matrix: Water
Analysis Batch: 700911

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.2		mg/L		102	90 - 119

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-700905/16
Matrix: Water
Analysis Batch: 700905

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			03/02/23 12:53	1

Lab Sample ID: LCS 500-700905/17
Matrix: Water
Analysis Batch: 700905

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	21.3		mg/L		107	88 - 123

Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534 5200 Fax 708-534-5211



Chain of Custody Record



Client Information		500 229879 COC		Lab PM: Mockler Diana J		Carrier Tracking No(s)		COC No 500 106660 45300 1	
Client Contact: PATRICK ALLENSTEIN		Phone: 630 325 1300		E Mail: Diana Mockler@et.eurofins.com		State of Origin		Page 1 of 1	
Company: KPRG and Associates Inc				PWSID		Analysis Requested			
Address: 414 Plaza Drive Suite 106		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0 904.0 6010C 6020A 7470A 2540C 4500_F.C. SMA500_CLE SMA4500_SO4_E		Total Number of containers Job #: 500 229879		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z other (specify)	
City: Westmont		TAT Requested (days)						Other	
State Zip: IL 60559		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone		PO # 4502081393							
Email: mitcheald@kprginc.com		WFO #							
Project Name: Will County 2S/3S Event Desc Quarterly GW Monitoring CCR		Project # 50011609							
Site: Illinois		SSOW#							
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue A-Air)	
								Special Instructions/Note	
MW-05		2-23-23		09:35		G		Water	
MW-06		2-23-23		11:21		G		Water	
MW-09		2-23-23		15:44		G		Water	
MW 10		2-23-23		12:52		G		Water	
MW 11		—		—		—		Water	
MW 12		—		—		—		Water	
2S/3S Duplicate		2-23-23		—		G		Water	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<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					<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		Date		Time		Method of Shipment			
Relinquished by: <i>[Signature]</i>		Date/Time: 2-24-23 09:31		Company: KPRG		Received by: <i>[Signature]</i>		Date/Time: 2/24/23 09:31	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: (1.6 - 1.4) (0.3 - 0.1)					

1
2
3
4
5

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

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229879-1

Login Number: 229879

List Number: 1

Creator: James, Jeff A

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4,0.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: MW-05
Date Collected: 02/23/23 09:35
Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 18:11
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		20	700848	FXG	EET CHI	03/01/23 13:42
Total/NA	Prep	7470A			701108	MJG	EET CHI	03/03/23 14:45 - 03/03/23 16:45 ¹
Total/NA	Analysis	7470A		1	701281	MJG	EET CHI	03/06/23 10:28
Total/NA	Analysis	SM 2540C		1	700763	CLB	EET CHI	03/02/23 03:01
Total/NA	Analysis	SM 4500 CI- E		1	700692	LP	EET CHI	03/01/23 11:37
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		50	700905	LP	EET CHI	03/02/23 12:57

Client Sample ID: MW-06
Date Collected: 02/23/23 11:21
Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 18:14
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		10	700848	FXG	EET CHI	03/01/23 13:45
Total/NA	Prep	7470A			701108	MJG	EET CHI	03/03/23 14:45 - 03/03/23 16:45 ¹
Total/NA	Analysis	7470A		1	701281	MJG	EET CHI	03/06/23 10:31
Total/NA	Analysis	SM 2540C		1	700763	CLB	EET CHI	03/02/23 03:07
Total/NA	Analysis	SM 4500 CI- E		5	701276	LP	EET CHI	03/06/23 12:31
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		10	700905	LP	EET CHI	03/02/23 12:58

Client Sample ID: MW-09
Date Collected: 02/23/23 15:44
Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 18:18
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		5	700848	FXG	EET CHI	03/01/23 13:49
Total/NA	Prep	7470A			701108	MJG	EET CHI	03/03/23 14:45 - 03/03/23 16:45 ¹
Total/NA	Analysis	7470A		1	701281	MJG	EET CHI	03/06/23 10:33
Total/NA	Analysis	SM 2540C		1	700763	CLB	EET CHI	03/02/23 03:09
Total/NA	Analysis	SM 4500 CI- E		20	701276	LP	EET CHI	03/06/23 12:32
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		10	700905	LP	EET CHI	03/02/23 12:58

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Client Sample ID: MW-10
Date Collected: 02/23/23 12:52
Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 18:21
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		10	700848	FXG	EET CHI	03/01/23 13:54
Total/NA	Prep	7470A			701108	MJG	EET CHI	03/03/23 14:45 - 03/03/23 16:45 ¹
Total/NA	Analysis	7470A		1	701281	MJG	EET CHI	03/06/23 10:35
Total/NA	Analysis	SM 2540C		1	700763	CLB	EET CHI	03/02/23 03:12
Total/NA	Analysis	SM 4500 CI- E		10	701276	LP	EET CHI	03/06/23 12:32
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		10	700905	LP	EET CHI	03/02/23 12:58

Client Sample ID: 2S/3S Duplicate
Date Collected: 02/23/23 00:00
Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		1	700664	FXG	EET CHI	02/28/23 18:24
Total Recoverable	Prep	3005A			700282	BDE	EET CHI	02/27/23 08:21 - 02/27/23 08:51 ¹
Total Recoverable	Analysis	6020A		20	700848	FXG	EET CHI	03/01/23 13:58
Total/NA	Prep	7470A			701108	MJG	EET CHI	03/03/23 14:45 - 03/03/23 16:45 ¹
Total/NA	Analysis	7470A		1	701281	MJG	EET CHI	03/06/23 10:37
Total/NA	Analysis	SM 2540C		1	700763	CLB	EET CHI	03/02/23 03:14
Total/NA	Analysis	SM 4500 CI- E		10	701276	LP	EET CHI	03/06/23 12:32
Total/NA	Analysis	SM 4500 F C		1	700911	EH	EET CHI	03/02/23 13:02
Total/NA	Analysis	SM 4500 SO4 E		20	700905	LP	EET CHI	03/02/23 13:13

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

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

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-229879-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23

1

2

3

4

5

6

7

8

9

10

11

12

13

ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Allenstein
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 3/30/2023 8:07:49 AM

JOB DESCRIPTION

Will County CCR (RAD)
Quarterly GW Monitoring

JOB NUMBER

500-229879-2

Eurofins Chicago

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization



Generated
3/30/2023 8:07:49 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	12
QC Association	13
QC Sample Results	14
Chain of Custody	16
Receipt Checklists	18
Chronicle	20
Certification Summary	22
Tracer Carrier Summary	23

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Job ID: 500-229879-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-229879-2

Receipt

The samples were received on 2/24/2023 9:31 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.1° C and 1.4° C.

RAD

Methods 903.0, 9315: Radium 226 batch 602039

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-05 (500-229879-1), MW-06 (500-229879-2), MW-09 (500-229879-3), MW-10 (500-229879-4), 2S/3S Duplicate (500-229879-5), (LCS 160-602039/2-A), (MB 160-602039/1-A) and (500-229879-D-5-A DU)

Methods 904.0, 9320: Radium-228 batch 602041

The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW-10 (500-229879-4). Analytical results are reported with the detection limit achieved.

Methods 904.0, 9320: Radium-228 batch 602041

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-05 (500-229879-1), MW-06 (500-229879-2), MW-09 (500-229879-3), MW-10 (500-229879-4), 2S/3S Duplicate (500-229879-5), (LCS 160-602041/2-A), (MB 160-602041/1-A) and (500-229879-D-5-B DU)

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

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-229879-1	MW-05	Water	02/23/23 09:35	02/24/23 09:31
500-229879-2	MW-06	Water	02/23/23 11:21	02/24/23 09:31
500-229879-3	MW-09	Water	02/23/23 15:44	02/24/23 09:31
500-229879-4	MW-10	Water	02/23/23 12:52	02/24/23 09:31
500-229879-5	2S/3S Duplicate	Water	02/23/23 00:00	02/24/23 09:31

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

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: MW-05

Lab Sample ID: 500-229879-1

Date Collected: 02/23/23 09:35

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0557	U	0.0706	0.0707	1.00	0.117	pCi/L	03/01/23 10:36	03/28/23 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		30 - 110					03/01/23 10:36	03/28/23 15:38	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.403	U	0.407	0.409	1.00	0.655	pCi/L	03/01/23 11:14	03/09/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		30 - 110					03/01/23 11:14	03/09/23 11:57	1
Y Carrier	84.1		30 - 110					03/01/23 11:14	03/09/23 11:57	1

Method: TAL-STL 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	0.459	U	0.413	0.415	5.00	0.655	pCi/L		03/30/23 00:22	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: MW-06

Lab Sample ID: 500-229879-2

Date Collected: 02/23/23 11:21

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0814	U	0.0780	0.0784	1.00	0.121	pCi/L	03/01/23 10:36	03/28/23 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		30 - 110					03/01/23 10:36	03/28/23 15:38	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.867		0.524	0.530	1.00	0.775	pCi/L	03/01/23 11:14	03/09/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		30 - 110					03/01/23 11:14	03/09/23 11:57	1
Y Carrier	83.4		30 - 110					03/01/23 11:14	03/09/23 11:57	1

Method: TAL-STL 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	0.948		0.530	0.536	5.00	0.775	pCi/L		03/30/23 00:22	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: MW-09

Lab Sample ID: 500-229879-3

Date Collected: 02/23/23 15:44

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0376	U	0.0527	0.0528	1.00	0.0893	pCi/L	03/01/23 10:36	03/28/23 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		30 - 110					03/01/23 10:36	03/28/23 15:38	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.197	U	0.357	0.357	1.00	0.614	pCi/L	03/01/23 11:14	03/09/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		30 - 110					03/01/23 11:14	03/09/23 11:57	1
Y Carrier	84.5		30 - 110					03/01/23 11:14	03/09/23 11:57	1

Method: TAL-STL 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	0.234	U	0.361	0.361	5.00	0.614	pCi/L		03/30/23 00:22	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: MW-10

Lab Sample ID: 500-229879-4

Date Collected: 02/23/23 12:52

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.178	U	0.133	0.134	1.00	0.194	pCi/L	03/01/23 10:36	03/28/23 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	58.8		30 - 110					03/01/23 10:36	03/28/23 15:38	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.17	G	0.748	0.756	1.00	1.10	pCi/L	03/01/23 11:14	03/09/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	58.8		30 - 110					03/01/23 11:14	03/09/23 11:57	1
Y Carrier	80.0		30 - 110					03/01/23 11:14	03/09/23 11:57	1

Method: TAL-STL 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	1.35		0.760	0.768	5.00	1.10	pCi/L		03/30/23 00:22	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-229879-5

Date Collected: 02/23/23 00:00

Matrix: Water

Date Received: 02/24/23 09:31

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0207	U	0.0612	0.0612	1.00	0.114	pCi/L	03/01/23 10:36	03/28/23 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.8		30 - 110					03/01/23 10:36	03/28/23 15:39	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.499	U	0.423	0.426	1.00	0.661	pCi/L	03/01/23 11:14	03/09/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.8		30 - 110					03/01/23 11:14	03/09/23 11:57	1
Y Carrier	83.7		30 - 110					03/01/23 11:14	03/09/23 11:57	1

Method: TAL-STL 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	0.520	U	0.427	0.430	5.00	0.661	pCi/L		03/30/23 00:22	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
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 Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Rad

Prep Batch: 602039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	PrecSep-21	
500-229879-2	MW-06	Total/NA	Water	PrecSep-21	
500-229879-3	MW-09	Total/NA	Water	PrecSep-21	
500-229879-4	MW-10	Total/NA	Water	PrecSep-21	
500-229879-5	2S/3S Duplicate	Total/NA	Water	PrecSep-21	
MB 160-602039/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602039/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-229879-5 DU	2S/3S Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 602041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-229879-1	MW-05	Total/NA	Water	PrecSep_0	
500-229879-2	MW-06	Total/NA	Water	PrecSep_0	
500-229879-3	MW-09	Total/NA	Water	PrecSep_0	
500-229879-4	MW-10	Total/NA	Water	PrecSep_0	
500-229879-5	2S/3S Duplicate	Total/NA	Water	PrecSep_0	
MB 160-602041/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602041/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-229879-5 DU	2S/3S Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-602039/1-A
Matrix: Water
Analysis Batch: 605277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602039

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02688	U	0.0423	0.0423	1.00	0.100	pCi/L	03/01/23 10:36	03/28/23 08:38	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	91.5		30 - 110			03/01/23 10:36	03/28/23 08:38	1		

Lab Sample ID: LCS 160-602039/2-A
Matrix: Water
Analysis Batch: 605277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602039

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.79		1.18	1.00	0.0931	pCi/L	104	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	91.0		30 - 110						

Lab Sample ID: 500-229879-5 DU
Matrix: Water
Analysis Batch: 605277

Client Sample ID: 2S/3S Duplicate
Prep Type: Total/NA
Prep Batch: 602039

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0207	U	0.1114		0.0753	1.00	0.104	pCi/L	0.66	1
Carrier	DU	DU	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	85.3		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-602041/1-A
Matrix: Water
Analysis Batch: 602892

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602041

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.4786	U	0.346	0.349	1.00	0.525	pCi/L	03/01/23 11:14	03/09/23 11:53	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	91.5		30 - 110			03/01/23 11:14	03/09/23 11:53	1		
Y Carrier	81.9		30 - 110			03/01/23 11:14	03/09/23 11:53	1		

QC Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-602041/2-A
Matrix: Water
Analysis Batch: 602892

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602041

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	
Radium-228	8.13	9.678		1.32	1.00	0.493	pCi/L	119	75 - 125	
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	91.0		30 - 110							
Y Carrier	80.7		30 - 110							

Lab Sample ID: 500-229879-5 DU
Matrix: Water
Analysis Batch: 602892

Client Sample ID: 2S/3S Duplicate
Prep Type: Total/NA
Prep Batch: 602041

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										1
Radium-228	0.499	U	0.5415	U	0.376	1.00	0.558	pCi/L	0.05	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	85.3		30 - 110							
Y Carrier	81.9		30 - 110							

Eurofins Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534 5200 Fax 708-534-5211



Chain of Custody Record



Client Information		500 229879 COC		Lab PM: Mockler Diana J		Carrier Tracking No(s)		COC No 500 106660 45300 1	
Client Contact Mitchell Dolan PATRICK ALLENSTEIN		Phone: 630 325 1300		E Mail: Diana Mockler@et.eurofins.com		State of Origin		Page 1 of 1	
Company: KPRG and Associates Inc				PWSID		Analysis Requested			
Address: 414 Plaza Drive Suite 106		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0 904.0 6010C 6020A 7470A 2540C 4500_F.C. SMA500_CLE SMA4500_SO4_E		Total Number of Containers Job # 500 229879		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z other (specify)	
City: Westmont		TAT Requested (days)						Other	
State Zip: IL 60559		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone		PO # 4502081393							
Email: mitcheld@kprginc.com PATRICK@KPRGINC.COM		WO #							
Project Name: Will County 2S/3S Event Desc Quarterly GW Monitoring CCR		Project # 50011609							
Site: Illinois		SSOW#							
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue A-Air)	
								Preservation Code	
MW-05		2-23-23		09:35		G		Water	
MW-06		2-23-23		11:21		G		Water	
MW-09		2-23-23		15:44		G		Water	
MW 10		2-23-23		12:52		G		Water	
MW 11		—		—		—		Water	
MW 12		—		—		—		Water	
2S/3S Duplicate		2-23-23		—		G		Water	
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		Special Instructions/QC Requirements	
Deliverable Requested I II III IV Other (specify)		Empty Kit Relinquished by		Date		Time		Method of Shipment	
		Relinquished by <i>[Signature]</i>		Date/Time 2-24-23 09:31		Company KPRG		Received by <i>[Signature]</i> Date/Time 2/24/23 09:31 Company	
		Relinquished by		Date/Time		Company		Received by Date/Time Company	
		Relinquished by		Date/Time		Company		Received by Date/Time Company	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks					

1
2
3
4
5

(1.6 - 1.4) (0.3 - 0.1)



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-171206.1
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@et.eurofins.com	Page: 1 of 1
Address: 13715 Rider Trail North, Earth City, State, Zip: MO, 63045		State of Origin: Illinois	Job #: 500-229879-1
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Nitric Acid R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Y - Trizma Z - other (specify)	
Project Name: Will County CCR		Other:	
Site: NRG Midwest Generation Will County			
Due Date Requested: 3/16/2023		Analysis Requested	
TAT Requested (days):		Total Number of Containers	
PO #:		Perform MS/MSD (Yes or No)	
WO #:		Field Filtered Sample (Yes or No)	
Project #: 50011609		903.0/PreSep_21 Standard Target List	
SSOW#:		904.0/PreSep_0 Standard Target List	
		Special Instructions/Note:	
		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:	
		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:	
		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:	
		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:	
		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:	

Sample Identification - Client ID (Lab ID)

Sample ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	MATRIX (Water, Solid, Organic/Vol, B1=Trace, A=Air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Total Number of Containers	Special Instructions/Note
MW-05 (500-229879-1)	2/23/23	09:35 Central	Water	Water		X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:
MW-06 (500-229879-2)	2/23/23	11:21 Central	Water	Water		X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:
MW-09 (500-229879-3)	2/23/23	15:44 Central	Water	Water		X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:
MW-10 (500-229879-4)	2/23/23	12:52 Central	Water	Water		X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:
2S/3S Duplicate (500-229879-5)	2/23/23	Central	Water	Water		X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume:

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
 Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment:

Relinquished by: *Stephanie Hernandez* Date/Time: 1/24/23 1000 Company: *EEA*
 Relinquished by: *FED EX* Date/Time: _____ Company: _____
 Relinquished by: _____ Date/Time: _____ Company: _____

Received by: *Sara Worthington* Date/Time: FEB 27 2023 0855 Company: *EEA*
 Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ (Custody Seal No.: _____)
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229879-2

Login Number: 229879

List Number: 1

Creator: James, Jeff A

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4,0.1
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-229879-2

Login Number: 229879

List Number: 2

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

List Creation: 02/28/23 10:05 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	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: MW-05

Date Collected: 02/23/23 09:35

Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			602039	DJP	EET SL	03/01/23 10:36
Total/NA	Analysis	903.0		1	605277	FLC	EET SL	03/28/23 15:38
Total/NA	Prep	PrecSep_0			602041	DJP	EET SL	03/01/23 11:14
Total/NA	Analysis	904.0		1	602892	FLC	EET SL	03/09/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	605594	EMH	EET SL	03/30/23 00:22

Client Sample ID: MW-06

Date Collected: 02/23/23 11:21

Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			602039	DJP	EET SL	03/01/23 10:36
Total/NA	Analysis	903.0		1	605277	FLC	EET SL	03/28/23 15:38
Total/NA	Prep	PrecSep_0			602041	DJP	EET SL	03/01/23 11:14
Total/NA	Analysis	904.0		1	602892	FLC	EET SL	03/09/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	605594	EMH	EET SL	03/30/23 00:22

Client Sample ID: MW-09

Date Collected: 02/23/23 15:44

Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			602039	DJP	EET SL	03/01/23 10:36
Total/NA	Analysis	903.0		1	605277	FLC	EET SL	03/28/23 15:38
Total/NA	Prep	PrecSep_0			602041	DJP	EET SL	03/01/23 11:14
Total/NA	Analysis	904.0		1	602892	FLC	EET SL	03/09/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	605594	EMH	EET SL	03/30/23 00:22

Client Sample ID: MW-10

Date Collected: 02/23/23 12:52

Date Received: 02/24/23 09:31

Lab Sample ID: 500-229879-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			602039	DJP	EET SL	03/01/23 10:36
Total/NA	Analysis	903.0		1	605277	FLC	EET SL	03/28/23 15:38
Total/NA	Prep	PrecSep_0			602041	DJP	EET SL	03/01/23 11:14
Total/NA	Analysis	904.0		1	602892	FLC	EET SL	03/09/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	605594	EMH	EET SL	03/30/23 00:22

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-229879-5

Date Collected: 02/23/23 00:00

Matrix: Water

Date Received: 02/24/23 09:31

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep-21			602039	DJP	EET SL	03/01/23 10:36
Total/NA	Analysis	903.0		1	605277	FLC	EET SL	03/28/23 15:39
Total/NA	Prep	PrecSep_0			602041	DJP	EET SL	03/01/23 11:14
Total/NA	Analysis	904.0		1	602892	FLC	EET SL	03/09/23 11:57
Total/NA	Analysis	Ra226_Ra228		1	605594	EMH	EET SL	03/30/23 00:22

Laboratory References:

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

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

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-23

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

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR (RAD)

Job ID: 500-229879-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
500-229879-1	MW-05	69.8
500-229879-2	MW-06	69.8
500-229879-3	MW-09	82.8
500-229879-4	MW-10	58.8
500-229879-5	2S/3S Duplicate	71.8
500-229879-5 DU	2S/3S Duplicate	85.3
LCS 160-602039/2-A	Lab Control Sample	91.0
MB 160-602039/1-A	Method Blank	91.5

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-229879-1	MW-05	69.8	84.1
500-229879-2	MW-06	69.8	83.4
500-229879-3	MW-09	82.8	84.5
500-229879-4	MW-10	58.8	80.0
500-229879-5	2S/3S Duplicate	71.8	83.7
500-229879-5 DU	2S/3S Duplicate	85.3	81.9
LCS 160-602041/2-A	Lab Control Sample	91.0	80.7
MB 160-602041/1-A	Method Blank	91.5	81.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Patrick Allenstein
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 5/17/2023 8:50:46 AM

JOB DESCRIPTION

Will County CCR 2S/3S

JOB NUMBER

500-232842-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
5/17/2023 8:50:46 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	14
QC Association	15
QC Sample Results	18
Chain of Custody	25
Receipt Checklists	26
Chronicle	27
Certification Summary	30

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Job ID: 500-232842-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-232842-1**

Receipt

The samples were received on 4/26/2023 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5° C, 3.0° C and 5.0° C.

Metals

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

General Chemistry

Methods 9251, SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-711786 were outside control limits for chloride. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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



Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

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:

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

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-232842-1	MW-05	Water	04/26/23 13:40	04/26/23 16:30
500-232842-2	MW-06	Water	04/26/23 09:25	04/26/23 16:30
500-232842-3	MW-09	Water	04/26/23 12:21	04/26/23 16:30
500-232842-4	MW-10	Water	04/26/23 11:02	04/26/23 16:30
500-232842-5	MW-11	Water	04/25/23 14:54	04/26/23 16:30
500-232842-6	MW-12	Water	04/25/23 16:35	04/26/23 16:30
500-232842-7	2S/3S Duplicate	Water	04/26/23 00:00	04/26/23 16:30

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

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-05

Lab Sample ID: 500-232842-1

Date Collected: 04/26/23 13:40

Matrix: Water

Date Received: 04/26/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 21:15	1
Arsenic	0.0022		0.0010		mg/L		05/05/23 09:27	05/05/23 21:15	1
Barium	0.040		0.0025		mg/L		05/05/23 09:27	05/05/23 21:15	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:15	1
Boron	4.9		1.0		mg/L		05/05/23 09:27	05/08/23 13:21	20
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:15	1
Calcium	210		0.20		mg/L		05/05/23 09:27	05/05/23 21:15	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:15	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:15	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:15	1
Lithium	0.013		0.010		mg/L		05/05/23 09:27	05/05/23 21:15	1
Molybdenum	0.055		0.0050		mg/L		05/05/23 09:27	05/05/23 21:15	1
Selenium	0.039		0.0025		mg/L		05/05/23 09:27	05/05/23 21:15	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 21:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 07:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1600		10		mg/L			05/02/23 16:37	1
Chloride (SM 4500 Cl- E)	33		2.0		mg/L			05/06/23 12:25	1
Fluoride (SM 4500 F C)	0.47		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	670		250		mg/L			05/08/23 13:04	50

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-06
Date Collected: 04/26/23 09:25
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 21:36	1
Arsenic	0.0023		0.0010		mg/L		05/05/23 09:27	05/05/23 21:36	1
Barium	0.070		0.0025		mg/L		05/05/23 09:27	05/05/23 21:36	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:36	1
Boron	2.0		0.25		mg/L		05/05/23 09:27	05/08/23 13:42	5
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:36	1
Calcium	100		0.20		mg/L		05/05/23 09:27	05/05/23 21:36	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:36	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:36	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:36	1
Lithium	0.014		0.010		mg/L		05/05/23 09:27	05/05/23 21:36	1
Molybdenum	0.019		0.0050		mg/L		05/05/23 09:27	05/05/23 21:36	1
Selenium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 21:36	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 21:36	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 07:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	610		10		mg/L			05/02/23 16:39	1
Chloride (SM 4500 Cl- E)	15		2.0		mg/L			05/06/23 12:25	1
Fluoride (SM 4500 F C)	0.36		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	150		50		mg/L			05/08/23 13:04	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-09

Lab Sample ID: 500-232842-3

Date Collected: 04/26/23 12:21

Matrix: Water

Date Received: 04/26/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 21:40	1
Arsenic	0.0080		0.0010		mg/L		05/05/23 09:27	05/05/23 21:40	1
Barium	0.029		0.0025		mg/L		05/05/23 09:27	05/05/23 21:40	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:40	1
Boron	1.8		0.25		mg/L		05/05/23 09:27	05/08/23 13:46	5
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:40	1
Calcium	38		0.20		mg/L		05/05/23 09:27	05/05/23 21:40	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:40	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:40	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:40	1
Lithium	<0.010		0.010		mg/L		05/05/23 09:27	05/05/23 21:40	1
Molybdenum	0.062		0.0050		mg/L		05/05/23 09:27	05/05/23 21:40	1
Selenium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 21:40	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 21:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 08:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	750		10		mg/L			05/02/23 16:42	1
Chloride (SM 4500 Cl- E)	190		20		mg/L			05/06/23 12:28	10
Fluoride (SM 4500 F C)	0.48		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	220		50		mg/L			05/08/23 13:04	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-10

Lab Sample ID: 500-232842-4

Date Collected: 04/26/23 11:02

Matrix: Water

Date Received: 04/26/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 21:44	1
Arsenic	0.013		0.0010		mg/L		05/05/23 09:27	05/05/23 21:44	1
Barium	0.079		0.0025		mg/L		05/05/23 09:27	05/05/23 21:44	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:44	1
Boron	2.8		0.50		mg/L		05/05/23 09:27	05/08/23 13:50	10
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:44	1
Calcium	99		0.20		mg/L		05/05/23 09:27	05/05/23 21:44	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:44	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:44	1
Lead	0.00067		0.00050		mg/L		05/05/23 09:27	05/05/23 21:44	1
Lithium	0.015		0.010		mg/L		05/05/23 09:27	05/05/23 21:44	1
Molybdenum	0.12		0.0050		mg/L		05/05/23 09:27	05/05/23 21:44	1
Selenium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 21:44	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 21:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 08:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	900		10		mg/L			05/02/23 17:44	1
Chloride (SM 4500 Cl- E)	150		20		mg/L			05/06/23 12:29	10
Fluoride (SM 4500 F C)	0.94		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	250		100		mg/L			05/08/23 13:05	20

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-11
Date Collected: 04/25/23 14:54
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 21:56	1
Arsenic	0.015		0.0010		mg/L		05/05/23 09:27	05/05/23 21:56	1
Barium	0.18		0.0025		mg/L		05/05/23 09:27	05/05/23 21:56	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:56	1
Boron	2.8		0.50		mg/L		05/05/23 09:27	05/08/23 14:06	10
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:56	1
Calcium	110		0.20		mg/L		05/05/23 09:27	05/05/23 21:56	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:56	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:56	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:56	1
Lithium	<0.010		0.010		mg/L		05/05/23 09:27	05/05/23 21:56	1
Molybdenum	0.043		0.0050		mg/L		05/05/23 09:27	05/05/23 21:56	1
Selenium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 21:56	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 21:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 08:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	730		10		mg/L			05/01/23 22:12	1
Chloride (SM 4500 Cl- E)	130		20		mg/L			05/06/23 12:29	10
Fluoride (SM 4500 F C)	0.53		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	75		25		mg/L			05/04/23 11:35	5

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-12
Date Collected: 04/25/23 16:35
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 22:00	1
Arsenic	0.0017		0.0010		mg/L		05/05/23 09:27	05/05/23 22:00	1
Barium	0.12		0.0025		mg/L		05/05/23 09:27	05/05/23 22:00	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 22:00	1
Boron	1.8		0.25		mg/L		05/05/23 09:27	05/08/23 14:10	5
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 22:00	1
Calcium	150		0.20		mg/L		05/05/23 09:27	05/05/23 22:00	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 22:00	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 22:00	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 22:00	1
Lithium	0.012		0.010		mg/L		05/05/23 09:27	05/05/23 22:00	1
Molybdenum	0.022		0.0050		mg/L		05/05/23 09:27	05/05/23 22:00	1
Selenium	0.0044		0.0025		mg/L		05/05/23 09:27	05/05/23 22:00	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 22:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 08:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	980		10		mg/L			05/01/23 22:15	1
Chloride (SM 4500 Cl- E)	170		20		mg/L			05/06/23 12:31	10
Fluoride (SM 4500 F C)	0.42		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	180		50		mg/L			05/04/23 11:36	10

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-232842-7

Date Collected: 04/26/23 00:00

Matrix: Water

Date Received: 04/26/23 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 22:04	1
Arsenic	0.0022		0.0010		mg/L		05/05/23 09:27	05/05/23 22:04	1
Barium	0.069		0.0025		mg/L		05/05/23 09:27	05/05/23 22:04	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 22:04	1
Boron	2.2		0.25		mg/L		05/05/23 09:27	05/08/23 14:15	5
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 22:04	1
Calcium	99		0.20		mg/L		05/05/23 09:27	05/05/23 22:04	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 22:04	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 22:04	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 22:04	1
Lithium	0.012		0.010		mg/L		05/05/23 09:27	05/05/23 22:04	1
Molybdenum	0.019		0.0050		mg/L		05/05/23 09:27	05/05/23 22:04	1
Selenium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 22:04	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 22:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 08:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	650		10		mg/L			05/02/23 17:51	1
Chloride (SM 4500 Cl- E)	14		10		mg/L			05/06/23 12:31	5
Fluoride (SM 4500 F C)	0.35		0.10		mg/L			05/10/23 14:22	1
Sulfate (SM 4500 SO4 E)	150		50		mg/L			05/08/23 13:05	10

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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 Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Metals

Prep Batch: 711571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total Recoverable	Water	3005A	
500-232842-2	MW-06	Total Recoverable	Water	3005A	
500-232842-3	MW-09	Total Recoverable	Water	3005A	
500-232842-4	MW-10	Total Recoverable	Water	3005A	
500-232842-5	MW-11	Total Recoverable	Water	3005A	
500-232842-6	MW-12	Total Recoverable	Water	3005A	
500-232842-7	2S/3S Duplicate	Total Recoverable	Water	3005A	
MB 500-711571/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-711571/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-232842-1 MS	MW-05	Total Recoverable	Water	3005A	
500-232842-1 MSD	MW-05	Total Recoverable	Water	3005A	
500-232842-1 DU	MW-05	Total Recoverable	Water	3005A	

Analysis Batch: 711942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total Recoverable	Water	6020A	711571
500-232842-2	MW-06	Total Recoverable	Water	6020A	711571
500-232842-3	MW-09	Total Recoverable	Water	6020A	711571
500-232842-4	MW-10	Total Recoverable	Water	6020A	711571
500-232842-5	MW-11	Total Recoverable	Water	6020A	711571
500-232842-6	MW-12	Total Recoverable	Water	6020A	711571
500-232842-7	2S/3S Duplicate	Total Recoverable	Water	6020A	711571
MB 500-711571/1-A	Method Blank	Total Recoverable	Water	6020A	711571
LCS 500-711571/2-A	Lab Control Sample	Total Recoverable	Water	6020A	711571
500-232842-1 MS	MW-05	Total Recoverable	Water	6020A	711571
500-232842-1 MSD	MW-05	Total Recoverable	Water	6020A	711571
500-232842-1 DU	MW-05	Total Recoverable	Water	6020A	711571

Analysis Batch: 712060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total Recoverable	Water	6020A	711571
500-232842-2	MW-06	Total Recoverable	Water	6020A	711571
500-232842-3	MW-09	Total Recoverable	Water	6020A	711571
500-232842-4	MW-10	Total Recoverable	Water	6020A	711571
500-232842-5	MW-11	Total Recoverable	Water	6020A	711571
500-232842-6	MW-12	Total Recoverable	Water	6020A	711571
500-232842-7	2S/3S Duplicate	Total Recoverable	Water	6020A	711571
MB 500-711571/1-A	Method Blank	Total Recoverable	Water	6020A	711571
LCS 500-711571/2-A	Lab Control Sample	Total Recoverable	Water	6020A	711571
500-232842-1 MS	MW-05	Total Recoverable	Water	6020A	711571
500-232842-1 MSD	MW-05	Total Recoverable	Water	6020A	711571
500-232842-1 DU	MW-05	Total Recoverable	Water	6020A	711571

Prep Batch: 712981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	7470A	
500-232842-2	MW-06	Total/NA	Water	7470A	
500-232842-3	MW-09	Total/NA	Water	7470A	
500-232842-4	MW-10	Total/NA	Water	7470A	
500-232842-5	MW-11	Total/NA	Water	7470A	
500-232842-6	MW-12	Total/NA	Water	7470A	

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Metals (Continued)

Prep Batch: 712981 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-7	2S/3S Duplicate	Total/NA	Water	7470A	
MB 500-712981/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-712981/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 713303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	7470A	712981
500-232842-2	MW-06	Total/NA	Water	7470A	712981
500-232842-3	MW-09	Total/NA	Water	7470A	712981
500-232842-4	MW-10	Total/NA	Water	7470A	712981
500-232842-5	MW-11	Total/NA	Water	7470A	712981
500-232842-6	MW-12	Total/NA	Water	7470A	712981
500-232842-7	2S/3S Duplicate	Total/NA	Water	7470A	712981
MB 500-712981/12-A	Method Blank	Total/NA	Water	7470A	712981
LCS 500-712981/13-A	Lab Control Sample	Total/NA	Water	7470A	712981

General Chemistry

Analysis Batch: 710743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-5	MW-11	Total/NA	Water	SM 2540C	
500-232842-6	MW-12	Total/NA	Water	SM 2540C	
MB 500-710743/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-710743/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 710987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	SM 2540C	
500-232842-2	MW-06	Total/NA	Water	SM 2540C	
500-232842-3	MW-09	Total/NA	Water	SM 2540C	
MB 500-710987/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-710987/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 710989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-4	MW-10	Total/NA	Water	SM 2540C	
500-232842-7	2S/3S Duplicate	Total/NA	Water	SM 2540C	
MB 500-710989/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-710989/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-232842-4 MS	MW-10	Total/NA	Water	SM 2540C	
500-232842-4 DU	MW-10	Total/NA	Water	SM 2540C	
500-232842-7 DU	2S/3S Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 711406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-5	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-232842-6	MW-12	Total/NA	Water	SM 4500 SO4 E	
MB 500-711406/35	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-711406/36	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Eurofins Chicago

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

General Chemistry

Analysis Batch: 711786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-232842-2	MW-06	Total/NA	Water	SM 4500 Cl- E	
500-232842-3	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-232842-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-232842-5	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-232842-6	MW-12	Total/NA	Water	SM 4500 Cl- E	
500-232842-7	2S/3S Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-711786/42	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-711786/65	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-711786/43	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-711786/66	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-232842-5 MS	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-232842-5 MSD	MW-11	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 712003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-232842-2	MW-06	Total/NA	Water	SM 4500 SO4 E	
500-232842-3	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-232842-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-232842-7	2S/3S Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-712003/32	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-712003/34	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 712501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	SM 4500 F C	
500-232842-2	MW-06	Total/NA	Water	SM 4500 F C	
500-232842-3	MW-09	Total/NA	Water	SM 4500 F C	
500-232842-4	MW-10	Total/NA	Water	SM 4500 F C	
500-232842-5	MW-11	Total/NA	Water	SM 4500 F C	
500-232842-6	MW-12	Total/NA	Water	SM 4500 F C	
500-232842-7	2S/3S Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-712501/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-712501/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-712501/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-712501/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-232842-2 MS	MW-06	Total/NA	Water	SM 4500 F C	
500-232842-2 MSD	MW-06	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-711571/1-A
Matrix: Water
Analysis Batch: 711942

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		05/05/23 09:27	05/05/23 21:06	1
Arsenic	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:06	1
Barium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 21:06	1
Beryllium	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:06	1
Cadmium	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:06	1
Calcium	<0.20		0.20		mg/L		05/05/23 09:27	05/05/23 21:06	1
Chromium	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:06	1
Cobalt	<0.0010		0.0010		mg/L		05/05/23 09:27	05/05/23 21:06	1
Lead	<0.00050		0.00050		mg/L		05/05/23 09:27	05/05/23 21:06	1
Lithium	<0.010		0.010		mg/L		05/05/23 09:27	05/05/23 21:06	1
Molybdenum	<0.0050		0.0050		mg/L		05/05/23 09:27	05/05/23 21:06	1
Selenium	<0.0025		0.0025		mg/L		05/05/23 09:27	05/05/23 21:06	1
Thallium	<0.0020		0.0020		mg/L		05/05/23 09:27	05/05/23 21:06	1

Lab Sample ID: MB 500-711571/1-A
Matrix: Water
Analysis Batch: 712060

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050		0.050		mg/L		05/05/23 09:27	05/08/23 13:13	1

Lab Sample ID: LCS 500-711571/2-A
Matrix: Water
Analysis Batch: 711942

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0993		mg/L		99	80 - 120
Barium	0.500	0.512		mg/L		102	80 - 120
Beryllium	0.0500	0.0502		mg/L		100	80 - 120
Cadmium	0.0500	0.0506		mg/L		101	80 - 120
Calcium	10.0	9.55		mg/L		96	80 - 120
Chromium	0.200	0.203		mg/L		102	80 - 120
Cobalt	0.500	0.507		mg/L		101	80 - 120
Lead	0.100	0.0999		mg/L		100	80 - 120
Lithium	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.948		mg/L		95	80 - 120
Selenium	0.100	0.0990		mg/L		99	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-711571/2-A
Matrix: Water
Analysis Batch: 712060

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

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

Lab Sample ID: 500-232842-1 MS
Matrix: Water
Analysis Batch: 711942

Client Sample ID: MW-05
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec	
	Result			Result	Qualifier				Limits	Limits
Antimony	<0.0030		0.500	0.509		mg/L		102	75 - 125	
Arsenic	0.0022		0.100	0.102		mg/L		99	75 - 125	
Barium	0.040		0.500	0.542		mg/L		100	75 - 125	
Beryllium	<0.0010		0.0500	0.0474		mg/L		95	75 - 125	
Cadmium	<0.00050		0.0500	0.0489		mg/L		97	75 - 125	
Calcium	210		10.0	219	4	mg/L		67	75 - 125	
Chromium	<0.0050		0.200	0.199		mg/L		99	75 - 125	
Cobalt	<0.0010		0.500	0.489		mg/L		98	75 - 125	
Lead	<0.00050		0.100	0.0993		mg/L		99	75 - 125	
Lithium	0.013		0.100	0.115		mg/L		102	75 - 125	
Molybdenum	0.055		1.00	1.01		mg/L		96	75 - 125	
Selenium	0.039		0.100	0.137		mg/L		98	75 - 125	
Thallium	<0.0020		0.100	0.104		mg/L		104	75 - 125	

Lab Sample ID: 500-232842-1 MS
Matrix: Water
Analysis Batch: 712060

Client Sample ID: MW-05
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec	
	Result			Result	Qualifier				Limits	Limits
Boron	4.9		1.00	5.64	4	mg/L		74	75 - 125	

Lab Sample ID: 500-232842-1 MSD
Matrix: Water
Analysis Batch: 711942

Client Sample ID: MW-05
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Antimony	<0.0030		0.500	0.514		mg/L		103	75 - 125	1	20	
Arsenic	0.0022		0.100	0.103		mg/L		101	75 - 125	2	20	
Barium	0.040		0.500	0.534		mg/L		99	75 - 125	2	20	
Beryllium	<0.0010		0.0500	0.0472		mg/L		94	75 - 125	0	20	
Cadmium	<0.00050		0.0500	0.0495		mg/L		98	75 - 125	1	20	
Calcium	210		10.0	217	4	mg/L		49	75 - 125	1	20	
Chromium	<0.0050		0.200	0.193		mg/L		96	75 - 125	3	20	
Cobalt	<0.0010		0.500	0.478		mg/L		96	75 - 125	2	20	
Lead	<0.00050		0.100	0.0999		mg/L		100	75 - 125	1	20	
Lithium	0.013		0.100	0.111		mg/L		98	75 - 125	4	20	
Molybdenum	0.055		1.00	1.02		mg/L		96	75 - 125	1	20	
Selenium	0.039		0.100	0.140		mg/L		101	75 - 125	2	20	
Thallium	<0.0020		0.100	0.102		mg/L		102	75 - 125	2	20	

Lab Sample ID: 500-232842-1 MSD
Matrix: Water
Analysis Batch: 712060

Client Sample ID: MW-05
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result			Result	Qualifier				Limits	Limits	RPD	Limit
Boron	4.9		1.00	5.29	4	mg/L		38	75 - 125	6	20	

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

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

Lab Sample ID: 500-232842-1 DU
Matrix: Water
Analysis Batch: 711942

Client Sample ID: MW-05
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.0022		0.00229		mg/L		6	20
Barium	0.040		0.0403		mg/L		0.4	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	210		210		mg/L		1	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Lithium	0.013		0.0147		mg/L		13	20
Molybdenum	0.055		0.0556		mg/L		1	20
Selenium	0.039		0.0393		mg/L		0.3	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-232842-1 DU
Matrix: Water
Analysis Batch: 712060

Client Sample ID: MW-05
Prep Type: Total Recoverable
Prep Batch: 711571

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Boron	4.9		4.37		mg/L		12	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-712981/12-A
Matrix: Water
Analysis Batch: 713303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 712981

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020		mg/L		05/12/23 10:50	05/15/23 07:38	1

Lab Sample ID: LCS 500-712981/13-A
Matrix: Water
Analysis Batch: 713303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 712981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

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

Lab Sample ID: MB 500-710743/1
Matrix: Water
Analysis Batch: 710743

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10		mg/L			05/01/23 21:39	1

Eurofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

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

Lab Sample ID: LCS 500-710743/2
Matrix: Water
Analysis Batch: 710743

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	248		mg/L		99	80 - 120

Lab Sample ID: MB 500-710987/1
Matrix: Water
Analysis Batch: 710987

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/02/23 15:43	1

Lab Sample ID: LCS 500-710987/2
Matrix: Water
Analysis Batch: 710987

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	240		mg/L		96	80 - 120

Lab Sample ID: MB 500-710989/1
Matrix: Water
Analysis Batch: 710989

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/02/23 17:39	1

Lab Sample ID: LCS 500-710989/2
Matrix: Water
Analysis Batch: 710989

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	238		mg/L		95	80 - 120

Lab Sample ID: 500-232842-4 MS
Matrix: Water
Analysis Batch: 710989

Client Sample ID: MW-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	900		250	1190		mg/L		118	75 - 125

Lab Sample ID: 500-232842-4 DU
Matrix: Water
Analysis Batch: 710989

Client Sample ID: MW-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	900		904		mg/L		0.7	5

Lab Sample ID: 500-232842-7 DU
Matrix: Water
Analysis Batch: 710989

Client Sample ID: 2S/3S Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	650		618		mg/L		5	5

Euofins Chicago

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-711786/42
Matrix: Water
Analysis Batch: 711786

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/06/23 12:21	1

Lab Sample ID: MB 500-711786/65
Matrix: Water
Analysis Batch: 711786

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/06/23 12:26	1

Lab Sample ID: LCS 500-711786/43
Matrix: Water
Analysis Batch: 711786

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.7		mg/L		99	85 - 115

Lab Sample ID: LCS 500-711786/66
Matrix: Water
Analysis Batch: 711786

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.9		mg/L		99	85 - 115

Lab Sample ID: 500-232842-5 MS
Matrix: Water
Analysis Batch: 711786

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	130		20.0	140	4	mg/L		71	75 - 125

Lab Sample ID: 500-232842-5 MSD
Matrix: Water
Analysis Batch: 711786

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	130		20.0	140	4	mg/L		69	75 - 125	0	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-712501/3
Matrix: Water
Analysis Batch: 712501

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/10/23 14:22	1

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 500-712501/31
Matrix: Water
Analysis Batch: 712501

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/10/23 14:22	1

Lab Sample ID: LCS 500-712501/32
Matrix: Water
Analysis Batch: 712501

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.2		mg/L		102	90 - 119

Lab Sample ID: LCS 500-712501/4
Matrix: Water
Analysis Batch: 712501

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.7		mg/L		107	90 - 119

Lab Sample ID: 500-232842-2 MS
Matrix: Water
Analysis Batch: 712501

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.36		5.00	5.36		mg/L		100	75 - 125

Lab Sample ID: 500-232842-2 MSD
Matrix: Water
Analysis Batch: 712501

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.36		5.00	5.36		mg/L		100	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-711406/35
Matrix: Water
Analysis Batch: 711406

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/04/23 11:02	1

Lab Sample ID: LCS 500-711406/36
Matrix: Water
Analysis Batch: 711406

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	20.7		mg/L		103	88 - 123

QC Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MB 500-712003/32
Matrix: Water
Analysis Batch: 712003

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/08/23 12:44	1

Lab Sample ID: LCS 500-712003/34
Matrix: Water
Analysis Batch: 712003

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	19.4		mg/L		97	88 - 123



Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534 5200 Fax 708-534-5211

Chain of Custody Record

MKE 232 eurofins

Client Information		Sampler <i>Ian John Houston</i>		Lab PM Mockler Diana J		Carrier Tracking No(s)		COC No 500-111451-45942 1	
Client Contact Patrick Allenstein		Phone <i>630-325-1300</i>		E Mail Diana.Mockler@et.eurofins.com		State of Origin		Page Page 1 of 1	
Company KPRG and Associates Inc		PWS ID		Analysis Requested		Job # <i>500-232842</i>		Preservation Codes A H L M Hexan B NaOH N None C Zn Acetate O AsVarJ2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH S I2O4 G Amchlor T TSP Ductelchrycate H Ascorbic Acid U Acetone I ce V MCAA J DI Water W pH 4.5 K EDTA Y Trizma L EDA Z other (specify)	
Address 14665 West Lisbon Road Suite 1A		Due Date Requested							
City Brookfield		TAT Requested (days)		Field Filtered Sample (Yes or No)		Perform (MS/MSD) (Yes or No)		Total Number of containers	
State Zip WI 53005		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone 500-232842 COC		PO # 4502116506		903.0 904.0 6010C 6020A 7470A 2640C, 4500, F, C, SW4500, CL, E, SW4500, SO4, E		D D N		Special Instructions/Note	
Email patricka@kprginc.com		WQ #							
Project Name Will County 2S/3S Event Desc. Quarterly GW Monitoring <i>CCR</i>		Project # 50011609		Preservation Code		D D N		5	
Site Illinois		SSOV#							
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp G=grab)		Matrix (W=water -solid O=wastewater BT=Tissue, A=Air)	
<i>1</i> MW-05		<i>4-26-23</i>		<i>13:40</i>		<i>G</i>		<i>Water</i>	
<i>2</i> MW-06		<i>4-26-23</i>		<i>09:25</i>		<i>G</i>		<i>Water</i>	
<i>3</i> MW-09		<i>4-26-23</i>		<i>12:21</i>		<i>G</i>		<i>Water</i>	
<i>4</i> MW-10		<i>4-26-23</i>		<i>11:02</i>		<i>G</i>		<i>Water</i>	
<i>5</i> MW-11		<i>4-25-23</i>		<i>14:54</i>		<i>G</i>		<i>Water</i>	
<i>6</i> MW-12		<i>4-25-23</i>		<i>16:35</i>		<i>G</i>		<i>Water</i>	
<i>7</i> 2S/3S Duplicate		<i>4-26-23</i>		<i>-</i>		<i>G</i>		<i>Water</i>	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<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"/> Radioactive					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Moist's				
Deliverable Requested I II III IV Other (specify)					Special Instructions/OC Requirements				
Empty Kit Reinstated by		Date		Time		Method of Disposal			
<i>[Signature]</i>		<i>4-25-23 16:30</i>		<i>KPRG</i>		<i>[Signature]</i>		<i>4/26/23 1630 [Signature]</i>	
Reinstated by		Date/Time		Company		Received by		Date/Time	
<i>[Signature]</i>		<i>4-26-23 16:30</i>		<i>KPRG</i>		<i>[Signature]</i>		<i>4/26/23 1630 [Signature]</i>	
Custody Seals Intact		Custody Seal No		Collection Temperature °C		Collection Time			
<input type="checkbox"/> Yes <input type="checkbox"/> No				<i>5.1-75.0, 2.6-72.5, 3.1-73.0</i>					



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-232842-1

Login Number: 232842

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0,2.5,3.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-05

Date Collected: 04/26/23 13:40

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 21:15
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		20	712060	FXG	EET CHI	05/08/23 13:21
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 07:42
Total/NA	Analysis	SM 2540C		1	710987	CLB	EET CHI	05/02/23 16:37
Total/NA	Analysis	SM 4500 CI- E		1	711786	MM	EET CHI	05/06/23 12:25
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		50	712003	LP	EET CHI	05/08/23 13:04

Client Sample ID: MW-06

Date Collected: 04/26/23 09:25

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 21:36
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		5	712060	FXG	EET CHI	05/08/23 13:42
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 07:59
Total/NA	Analysis	SM 2540C		1	710987	CLB	EET CHI	05/02/23 16:39
Total/NA	Analysis	SM 4500 CI- E		1	711786	MM	EET CHI	05/06/23 12:25
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		10	712003	LP	EET CHI	05/08/23 13:04

Client Sample ID: MW-09

Date Collected: 04/26/23 12:21

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 21:40
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		5	712060	FXG	EET CHI	05/08/23 13:46
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 08:01
Total/NA	Analysis	SM 2540C		1	710987	CLB	EET CHI	05/02/23 16:42
Total/NA	Analysis	SM 4500 CI- E		10	711786	MM	EET CHI	05/06/23 12:28
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		10	712003	LP	EET CHI	05/08/23 13:04

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: MW-10
Date Collected: 04/26/23 11:02
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 21:44
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		10	712060	FXG	EET CHI	05/08/23 13:50
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 08:03
Total/NA	Analysis	SM 2540C		1	710989	CLB	EET CHI	05/02/23 17:44
Total/NA	Analysis	SM 4500 CI- E		10	711786	MM	EET CHI	05/06/23 12:29
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		20	712003	LP	EET CHI	05/08/23 13:05

Client Sample ID: MW-11
Date Collected: 04/25/23 14:54
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 21:56
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		10	712060	FXG	EET CHI	05/08/23 14:06
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 08:05
Total/NA	Analysis	SM 2540C		1	710743	CLB	EET CHI	05/01/23 22:12
Total/NA	Analysis	SM 4500 CI- E		10	711786	MM	EET CHI	05/06/23 12:29
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		5	711406	MM	EET CHI	05/04/23 11:35

Client Sample ID: MW-12
Date Collected: 04/25/23 16:35
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 22:00
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		5	712060	FXG	EET CHI	05/08/23 14:10
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 08:07
Total/NA	Analysis	SM 2540C		1	710743	CLB	EET CHI	05/01/23 22:15
Total/NA	Analysis	SM 4500 CI- E		10	711786	MM	EET CHI	05/06/23 12:31
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		10	711406	MM	EET CHI	05/04/23 11:36

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-232842-7

Date Collected: 04/26/23 00:00

Matrix: Water

Date Received: 04/26/23 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		1	711942	FXG	EET CHI	05/05/23 22:04
Total Recoverable	Prep	3005A			711571	BDE	EET CHI	05/05/23 09:27 - 05/05/23 09:57 ¹
Total Recoverable	Analysis	6020A		5	712060	FXG	EET CHI	05/08/23 14:15
Total/NA	Prep	7470A			712981	MJG	EET CHI	05/12/23 10:50 - 05/12/23 12:50 ¹
Total/NA	Analysis	7470A		1	713303	MJG	EET CHI	05/15/23 08:10
Total/NA	Analysis	SM 2540C		1	710989	CLB	EET CHI	05/02/23 17:51
Total/NA	Analysis	SM 4500 Cl- E		5	711786	MM	EET CHI	05/06/23 12:31
Total/NA	Analysis	SM 4500 F C		1	712501	EH	EET CHI	05/10/23 14:22
Total/NA	Analysis	SM 4500 SO4 E		10	712003	LP	EET CHI	05/08/23 13:05

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

Laboratory References:

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



Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S

Job ID: 500-232842-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-23 *

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

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Patrick Allenstein
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Generated 5/31/2023 3:00:58 PM

JOB DESCRIPTION

Will County CCR 2S/3S (RAD)

JOB NUMBER

500-232842-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
5/31/2023 3:00:58 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	14
QC Association	15
QC Sample Results	16
Chain of Custody	17
Receipt Checklists	19
Chronicle	21
Certification Summary	23
Tracer Carrier Summary	24

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Job ID: 500-232842-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-232842-2

Receipt

The samples were received on 4/26/2023 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5° C, 3.0° C and 5.0° C.

RAD

Method 903.0: Radium-226 prep batch 160-610447:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-05 (500-232842-1), MW-06 (500-232842-2), MW-09 (500-232842-3), MW-10 (500-232842-4), MW-11 (500-232842-5), MW-12 (500-232842-6), 2S/3S Duplicate (500-232842-7), (LCS 160-610447/2-A), (MB 160-610447/1-A), (500-232843-E-5-A) and (500-232843-C-5-B DU)

Method 904.0: Radium-228 prep batch 160-610459:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

MW-05 (500-232842-1), MW-06 (500-232842-2), MW-09 (500-232842-3), MW-10 (500-232842-4), MW-11 (500-232842-5), MW-12 (500-232842-6), 2S/3S Duplicate (500-232842-7), (LCS 160-610459/2-A), (MB 160-610459/1-A), (500-232843-E-5-B) and (500-232843-C-5-C DU)

Method PrecSep_0:

Method PrecSep-21:

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

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

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

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-232842-1	MW-05	Water	04/26/23 13:40	04/26/23 16:30
500-232842-2	MW-06	Water	04/26/23 09:25	04/26/23 16:30
500-232842-3	MW-09	Water	04/26/23 12:21	04/26/23 16:30
500-232842-4	MW-10	Water	04/26/23 11:02	04/26/23 16:30
500-232842-5	MW-11	Water	04/25/23 14:54	04/26/23 16:30
500-232842-6	MW-12	Water	04/25/23 16:35	04/26/23 16:30
500-232842-7	2S/3S Duplicate	Water	04/26/23 00:00	04/26/23 16:30

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

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-05

Lab Sample ID: 500-232842-1

Date Collected: 04/26/23 13:40

Matrix: Water

Date Received: 04/26/23 16:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0410	U	0.0929	0.0929	1.00	0.166	pCi/L	05/08/23 10:29	05/31/23 08:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		30 - 110					05/08/23 10:29	05/31/23 08:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.383	U	0.308	0.310	1.00	0.479	pCi/L	05/08/23 10:54	05/25/23 15:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		30 - 110					05/08/23 10:54	05/25/23 15:46	1
Y Carrier	84.1		30 - 110					05/08/23 10:54	05/25/23 15:46	1

Method: TAL-STL 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	0.424	U	0.322	0.324	5.00	0.479	pCi/L		05/31/23 14:19	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-06
Date Collected: 04/26/23 09:25
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-2
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.123	U	0.0979	0.0985	1.00	0.147	pCi/L	05/08/23 10:29	05/31/23 08:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		30 - 110					05/08/23 10:29	05/31/23 08:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0438	U	0.227	0.227	1.00	0.422	pCi/L	05/08/23 10:54	05/25/23 15:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		30 - 110					05/08/23 10:54	05/25/23 15:46	1
Y Carrier	81.5		30 - 110					05/08/23 10:54	05/25/23 15:46	1

Method: TAL-STL 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	0.167	U	0.247	0.247	5.00	0.422	pCi/L		05/31/23 14:19	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-09

Lab Sample ID: 500-232842-3

Date Collected: 04/26/23 12:21

Matrix: Water

Date Received: 04/26/23 16:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0368	U	0.0771	0.0772	1.00	0.139	pCi/L	05/08/23 10:29	05/31/23 08:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					05/08/23 10:29	05/31/23 08:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.478	U	0.366	0.368	1.00	0.562	pCi/L	05/08/23 10:54	05/25/23 15:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110					05/08/23 10:54	05/25/23 15:46	1
Y Carrier	82.2		30 - 110					05/08/23 10:54	05/25/23 15:46	1

Method: TAL-STL 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	0.515	U	0.374	0.376	5.00	0.562	pCi/L		05/31/23 14:19	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-10
Date Collected: 04/26/23 11:02
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-4
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0652	U	0.130	0.130	1.00	0.232	pCi/L	05/08/23 10:29	05/31/23 08:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	47.9		30 - 110					05/08/23 10:29	05/31/23 08:15	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.30		0.706	0.716	1.00	1.00	pCi/L	05/08/23 10:54	05/25/23 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	47.9		30 - 110					05/08/23 10:54	05/25/23 15:48	1
Y Carrier	83.0		30 - 110					05/08/23 10:54	05/25/23 15:48	1

Method: TAL-STL 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	1.37		0.718	0.728	5.00	1.00	pCi/L		05/31/23 14:19	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-11

Lab Sample ID: 500-232842-5

Date Collected: 04/25/23 14:54

Matrix: Water

Date Received: 04/26/23 16:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.446		0.182	0.186	1.00	0.203	pCi/L	05/08/23 10:29	05/31/23 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		30 - 110					05/08/23 10:29	05/31/23 08:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.206	U	0.421	0.421	1.00	0.734	pCi/L	05/08/23 10:54	05/25/23 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		30 - 110					05/08/23 10:54	05/25/23 15:48	1
Y Carrier	88.6		30 - 110					05/08/23 10:54	05/25/23 15:48	1

Method: TAL-STL 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	0.652	U	0.459	0.460	5.00	0.734	pCi/L		05/31/23 14:19	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-12

Lab Sample ID: 500-232842-6

Date Collected: 04/25/23 16:35

Matrix: Water

Date Received: 04/26/23 16:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.120	U	0.0943	0.0950	1.00	0.139	pCi/L	05/08/23 10:29	05/31/23 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		30 - 110					05/08/23 10:29	05/31/23 08:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0522	U	0.276	0.276	1.00	0.510	pCi/L	05/08/23 10:54	05/25/23 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		30 - 110					05/08/23 10:54	05/25/23 15:48	1
Y Carrier	74.8		30 - 110					05/08/23 10:54	05/25/23 15:48	1

Method: TAL-STL 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	0.172	U	0.292	0.292	5.00	0.510	pCi/L		05/31/23 14:19	1

Client Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-232842-7

Date Collected: 04/26/23 00:00

Matrix: Water

Date Received: 04/26/23 16:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0991	U	0.0917	0.0922	1.00	0.142	pCi/L	05/08/23 10:29	05/31/23 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.6		30 - 110					05/08/23 10:29	05/31/23 08:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.148	U	0.329	0.330	1.00	0.658	pCi/L	05/08/23 10:54	05/25/23 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.6		30 - 110					05/08/23 10:54	05/25/23 15:48	1
Y Carrier	76.6		30 - 110					05/08/23 10:54	05/25/23 15:48	1

Method: TAL-STL 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	-0.0484	U	0.342	0.343	5.00	0.658	pCi/L		05/31/23 14:19	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

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.
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 Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Rad

Prep Batch: 610447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	PrecSep-21	
500-232842-2	MW-06	Total/NA	Water	PrecSep-21	
500-232842-3	MW-09	Total/NA	Water	PrecSep-21	
500-232842-4	MW-10	Total/NA	Water	PrecSep-21	
500-232842-5	MW-11	Total/NA	Water	PrecSep-21	
500-232842-6	MW-12	Total/NA	Water	PrecSep-21	
500-232842-7	2S/3S Duplicate	Total/NA	Water	PrecSep-21	
MB 160-610447/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-610447/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 610459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-232842-1	MW-05	Total/NA	Water	PrecSep_0	
500-232842-2	MW-06	Total/NA	Water	PrecSep_0	
500-232842-3	MW-09	Total/NA	Water	PrecSep_0	
500-232842-4	MW-10	Total/NA	Water	PrecSep_0	
500-232842-5	MW-11	Total/NA	Water	PrecSep_0	
500-232842-6	MW-12	Total/NA	Water	PrecSep_0	
500-232842-7	2S/3S Duplicate	Total/NA	Water	PrecSep_0	
MB 160-610459/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-610459/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-610447/1-A
Matrix: Water
Analysis Batch: 613861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610447

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0000	U	0.0560	0.0560	1.00	0.117	pCi/L	05/08/23 10:29	05/31/23 08:13	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
%Yield	Qualifier									
Ba Carrier	95.4		30 - 110			05/08/23 10:29	05/31/23 08:13	1		

Lab Sample ID: LCS 160-610447/2-A
Matrix: Water
Analysis Batch: 613861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610447

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.16		1.09	1.00	0.123	pCi/L	90	75 - 113
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
%Yield	Qualifier								
Ba Carrier	94.4		30 - 110						

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-610459/1-A
Matrix: Water
Analysis Batch: 613105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610459

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.1797	U	0.301	0.301	1.00	0.513	pCi/L	05/08/23 10:54	05/25/23 15:45	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
%Yield	Qualifier									
Ba Carrier	95.4		30 - 110			05/08/23 10:54	05/25/23 15:45	1		
Y Carrier	85.2		30 - 110			05/08/23 10:54	05/25/23 15:45	1		

Lab Sample ID: LCS 160-610459/2-A
Matrix: Water
Analysis Batch: 613105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610459

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	8.17	7.218		1.03	1.00	0.456	pCi/L	88	75 - 125
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
%Yield	Qualifier								
Ba Carrier	94.4		30 - 110						
Y Carrier	84.1		30 - 110						

Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534 5200 Fax 708-534-5211

Chain of Custody Record

MKE 232 eurofins

Client Information		Sampler <i>Ian John Houston</i>	Lab PM Mockler Diana J	Carrier Tracking No(s)	COC No 500-111451-45942 1							
Client Contact Patrick Allenstein		Phone <i>630-325-1300</i>	E Mail Diana.Mockler@et.eurofins.com	State of Origin	Page Page 1 of 1							
Company KPRG and Associates Inc		PWS ID	Analysis Requested									
Address 14665 West Lisbon Road Suite 1A		Due Date Requested	Job # <i>500-232842</i> Preservation Codes A H L M Hexan B NaOH N None C Zn Acetate O AsVarJ2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH S I2O4 G Amchlor T TSP DucteLhydrate H Ascorbic Acid U Acetone I ce V MCAA J DI Water W pH 4.5 K EDTA Y Trizma L EDA Z other (specify)									
City Brookfield		TAT Requested (days)										
State Zip WI 53005		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No										
Phone 500-232842 COC		PO # 4502116506										
Email patricka@kprginc.com		WO#										
Project Name Will County 2S/3S Event Desc. Quarterly GW Monitoring <i>CCR</i>		Project # 50011609	Field Filtered Sample (Yes or No)									
Site Illinois		SSOV#	Perform (MS/MSD) (Yes or No)									
			903.0 904.0									
			6010C 6020A 7470A									
			2640C, 4500_F_C, SW4500_CL_E, SW4500_SO4_E									
			Total Number of containers									
			Special Instructions/Note									
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp G=grab)	Matrix (W=water -solid O=wastefoil BT=Tissue, A-Air)	Field Filtered Sample (Yes or No)	Perform (MS/MSD) (Yes or No)	D	D	N	Total Number of containers	Special Instructions/Note
		Preservation Code										
1	MW-05	4-26-23	13:40	G	Water	N	N	X	X	X	5	
2	MW-06	4-26-23	09:25	G	Water	N	N	X	X	X	5	
3	MW-09	4-26-23	12:21	G	Water	N	N	X	X	X	5	
4	MW-10	4-26-23	11:02	G	Water	N	N	X	X	X	5	
5	MW-11	4-25-23	14:54	G	Water	N	N	X	X	X	5	
6	MW-12	4-25-23	16:35	G	Water	N	N	X	X	X	5	
7	2S/3S Duplicate	4-26-23	-	G	Water	N	N	X	X	X	5	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<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"/> Radioactive						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Moist						
Deliverable Requested I II III IV Other (specify)						Special Instructions/OC Requirements						
Empty Kit Reinstated by		Date		Time		Method of Disposal						
<i>[Signature]</i>		4-25-23 16:30		KPRG		<i>[Signature]</i> 4/26/23 1630 <i>[Signature]</i>						
Reinstated by		Date/Time		Company		Received by						
<i>[Signature]</i>						<i>[Signature]</i>						
Custody Seals Intact		Custody Seal No		Custody Seal No		Custody Seal No						
<input type="checkbox"/> Yes <input type="checkbox"/> No						5.1-75.0, 2.6-725, 3.1-730						

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Shipping/Receiving		Phone:	Mockler, Diana J		500-173301-1
Company:		E-Mail:	Diana Mockler@et.eurofins.com	State of Origin:	Page:
TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Illinois	Page 1 of 1
Address:		Due Date Requested:	Job #:		
13715 Rider Trail North,		5/24/2023	500-232842-2		
City:		TAI Requested (days):	Preservation Codes:		
Earth City			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)		
State, Zip:		PO #:	Other:		
MO, 63045		WO #:			
Phone:		Project #:			
314-298-8566(Tel) 314-298-8757(Fax)		50011609			
Email:		SSOW#:			
Site:					
NRG Midwest Generation Will County					

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other, B=bioreactor, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	R226R228_GFP	Total Number of Containers	Special Instructions/Note:
MW-05 (500-232842-1)	4/26/23	13:40 Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-06 (500-232842-2)	4/26/23	09:25 Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-09 (500-232842-3)	4/26/23	12:21 Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-10 (500-232842-4)	4/26/23	11:02 Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-11 (500-232842-5)	4/25/23	14:54 Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-12 (500-232842-6)	4/25/23	16:35 Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
2S/3S Duplicate (500-232842-7)	4/26/23	Central		Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
											(2)

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Shirley Smith* Date/Time: *4/27/23 16:15* Company: _____
 Relinquished by: *Fedex* Date/Time: *4/28/23 08:30* Company: *STAS TL*
 Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-232842-2

Login Number: 232842

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0,2.5,3.0
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-232842-2

Login Number: 232842

List Number: 2

Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis

List Creation: 04/28/23 02:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <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	



Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-05

Date Collected: 04/26/23 13:40

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613861	SCB	EET SL	05/31/23 08:14
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613105	SCB	EET SL	05/25/23 15:46
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Client Sample ID: MW-06

Date Collected: 04/26/23 09:25

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613938	SCB	EET SL	05/31/23 08:15
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613105	SCB	EET SL	05/25/23 15:46
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Client Sample ID: MW-09

Date Collected: 04/26/23 12:21

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613938	SCB	EET SL	05/31/23 08:15
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613105	SCB	EET SL	05/25/23 15:46
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Client Sample ID: MW-10

Date Collected: 04/26/23 11:02

Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613938	SCB	EET SL	05/31/23 08:15
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613238	SCB	EET SL	05/25/23 15:48
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Lab Chronicle

Client: KPRG and Associates, Inc.
 Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Client Sample ID: MW-11
Date Collected: 04/25/23 14:54
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613938	SCB	EET SL	05/31/23 08:16
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613238	SCB	EET SL	05/25/23 15:48
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Client Sample ID: MW-12
Date Collected: 04/25/23 16:35
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613938	SCB	EET SL	05/31/23 08:16
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613238	SCB	EET SL	05/25/23 15:48
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Client Sample ID: 2S/3S Duplicate
Date Collected: 04/26/23 00:00
Date Received: 04/26/23 16:30

Lab Sample ID: 500-232842-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			610447	KAC	EET SL	05/08/23 10:29
Total/NA	Analysis	903.0		1	613938	SCB	EET SL	05/31/23 08:16
Total/NA	Prep	PrecSep_0			610459	KAC	EET SL	05/08/23 10:54
Total/NA	Analysis	904.0		1	613238	SCB	EET SL	05/25/23 15:48
Total/NA	Analysis	Ra226_Ra228		1	613826	EMH	EET SL	05/31/23 14:19

Laboratory References:

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

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-23

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

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR 2S/3S (RAD)

Job ID: 500-232842-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
500-232842-1	MW-05	98.8
500-232842-2	MW-06	93.7
500-232842-3	MW-09	88.1
500-232842-4	MW-10	47.9
500-232842-5	MW-11	78.1
500-232842-6	MW-12	90.8
500-232842-7	2S/3S Duplicate	79.6
LCS 160-610447/2-A	Lab Control Sample	94.4
MB 160-610447/1-A	Method Blank	95.4

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-232842-1	MW-05	98.8	84.1
500-232842-2	MW-06	93.7	81.5
500-232842-3	MW-09	88.1	82.2
500-232842-4	MW-10	47.9	83.0
500-232842-5	MW-11	78.1	88.6
500-232842-6	MW-12	90.8	74.8
500-232842-7	2S/3S Duplicate	79.6	76.6
LCS 160-610459/2-A	Lab Control Sample	94.4	84.1
MB 160-610459/1-A	Method Blank	95.4	85.2

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 6/12/2023 11:51:37 AM

JOB DESCRIPTION

Will County CCR - MW-10 (Molybdenum)

JOB NUMBER

500-234980-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
6/12/2023 11:51:37 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	8
QC Association	9
QC Sample Results	10
Chain of Custody	11
Receipt Checklists	12
Chronicle	13

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

Job ID: 500-234980-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-234980-1**

Receipt

The sample was received on 6/8/2023 4:25 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 10.5° C.

Metals

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

1

2

3

4

5

6

7

8

9

10

11

12

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI

Protocol References:

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

Laboratory References:

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

1

2

3

4

5

6

7

8

9

10

11

12

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-234980-1	MW-10	Water	06/08/23 13:20	06/08/23 16:25

1

2

3

4

5

6

7

8

9

10

11

12

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

Client Sample ID: MW-10
Date Collected: 06/08/23 13:20
Date Received: 06/08/23 16:25

Lab Sample ID: 500-234980-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.14		0.0050		mg/L		06/09/23 08:54	06/09/23 17:51	1

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

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

Metals

Prep Batch: 717769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-234980-1	MW-10	Total Recoverable	Water	3005A	
MB 500-717769/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-717769/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 718056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-234980-1	MW-10	Total Recoverable	Water	6020A	717769
MB 500-717769/1-A	Method Blank	Total Recoverable	Water	6020A	717769
LCS 500-717769/2-A	Lab Control Sample	Total Recoverable	Water	6020A	717769

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

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-717769/1-A
Matrix: Water
Analysis Batch: 718056

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 717769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0050		0.0050		mg/L		06/09/23 08:54	06/09/23 17:14	1

Lab Sample ID: LCS 500-717769/2-A
Matrix: Water
Analysis Batch: 718056

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 717769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	1.00	0.960		mg/L		96	80 - 120




Eurofins Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534 5200 Fax. 708-534-5211

Chain of Custody Record

MKE 232 

Client Information		Sampler <i>IAN JOHN HOWLSON</i>		Lab PM Mockler Diana J		Carrier Tracking No(s)		COC No. 500 111451-45942 1	
Client Contact Patrick Allenstein		Phone <i>630-325-1300</i>		E-Mail Diana.Mockler@et.eurofins.com		State of Origin		Page Page 1 of 1	
Company KPRG and Associates Inc				PWS#D		Analysis Re 			
Address 14665 West Lisbon Road Suite 1A		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) <i>66160-6089A 7370A</i> TOTAL MOLYBDENUM <i>66400-4500, E.C. SM4500, C.L.E. SM4500, SC4.E</i>		Job # 500-234980		Preservation Codes A HCL M Hexene B NaOH N None C Zn Acetate O AsNaO2 D Nitri Acid F Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S TSP O4 H Ascorbic Acid T TSP Dodecylhyd ate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z Other (specify)	
City Brookfield		TAT Requested (days)							
State Zip WI 53005		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone		PO # 4502116506							
Email patricka@kprginc.com		WFO #		Project Name Will County 2S/3S Event Desc. Quarterly GW Monitoring <i>CCR</i>		Project # 50011609		Site Illinois	
SSOW#		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Matrix (W=water, S=solid, G=wastefl, BT-T, site, A-Air)		Preservation Code		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
Special Instructions/Note									
MW 05									
MW 06									
MW 09									
MW 10		<i>6-8-23 13:20</i>		<i>G</i>		<i>N N X</i>		<i>1</i>	
MW 11									
MW 12									
2S/3S Duplica e									
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"/> Radiologic I					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/OC Requirements				
Empty Kit Requisitioned by <i>[Signature]</i>		Date		Time		Method of Transport			
Requisitioned by <i>[Signature]</i>		Date/Time <i>6-8-23 16:25</i>		Company <i>KPRG</i>		Received by <i>[Signature]</i>		Date/Time <i>6/8/23 1625</i>	
Requisitioned by		Date/Time		Company		Received by		Date/Time	
Requisitioned by		Date/Time		Company		Received by		Date/Time	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Code Transmittal Code of the form <i>1067105</i>					



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-234980-1

Login Number: 234980

List Number: 1

Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	10.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR - MW-10 (Molybdenum)

Job ID: 500-234980-1

Client Sample ID: MW-10
Date Collected: 06/08/23 13:20
Date Received: 06/08/23 16:25

Lab Sample ID: 500-234980-1
Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total Recoverable	Prep	3005A			717769	BDE	EET CHI	06/09/23 08:54 - 06/09/23 09:24 ¹
Total Recoverable	Analysis	6020A		1	718056	FXG	EET CHI	06/09/23 17:51

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

Laboratory References:

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





ANALYTICAL REPORT

PREPARED FOR

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 8/16/2023 3:31:58 PM

JOB DESCRIPTION

Will County 2S/3S CCR
Quarterly GW Monitoring

JOB NUMBER

500-237220-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
8/16/2023 3:31:58 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	14
QC Association	15
QC Sample Results	18
Chain of Custody	23
Receipt Checklists	24
Chronicle	25

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Job ID: 500-237220-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-237220-1**

Receipt

The samples were received on 7/26/2023 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.7° C, 2.5° C and 5.4° C.

Metals

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

General Chemistry

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

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

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

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:

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-237220-1	MW-05	Water	07/26/23 08:49	07/26/23 16:40
500-237220-2	MW-06	Water	07/26/23 10:56	07/26/23 16:40
500-237220-3	MW-09	Water	07/26/23 13:10	07/26/23 16:40
500-237220-4	MW-10	Water	07/26/23 11:55	07/26/23 16:40
500-237220-5	MW-11	Water	07/25/23 10:55	07/26/23 16:40
500-237220-6	MW-12	Water	07/25/23 10:03	07/26/23 16:40
500-237220-7	2S/3S Duplicate	Water	07/26/23 00:00	07/26/23 16:40

1

2

3

4

5

6

7

8

9

10

11

12

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-05

Lab Sample ID: 500-237220-1

Date Collected: 07/26/23 08:49

Matrix: Water

Date Received: 07/26/23 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 00:52	1
Arsenic	0.0014		0.0010		mg/L		08/01/23 09:15	08/03/23 00:52	1
Barium	0.061		0.0025		mg/L		08/01/23 09:15	08/03/23 00:52	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:52	1
Boron	4.8		1.0		mg/L		08/01/23 09:15	08/04/23 12:53	20
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:52	1
Calcium	180		0.20		mg/L		08/01/23 09:15	08/03/23 00:52	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 00:52	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:52	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:52	1
Lithium	0.021		0.010		mg/L		08/01/23 09:15	08/04/23 14:29	1
Molybdenum	0.053		0.0050		mg/L		08/01/23 09:15	08/03/23 00:52	1
Selenium	0.070		0.0025		mg/L		08/01/23 09:15	08/03/23 00:52	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 00:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1200		10		mg/L			08/01/23 11:26	1
Chloride (SM 4500 Cl- E)	18		2.0		mg/L			07/28/23 12:42	1
Fluoride (SM 4500 F C)	0.50		0.10		mg/L			07/27/23 11:22	1
Sulfate (SM 4500 SO4 E)	440		100		mg/L			07/27/23 14:05	20

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-06
Date Collected: 07/26/23 10:56
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 00:56	1
Arsenic	0.0022		0.0010		mg/L		08/01/23 09:15	08/03/23 00:56	1
Barium	0.083		0.0025		mg/L		08/01/23 09:15	08/03/23 00:56	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:56	1
Boron	2.5		0.50		mg/L		08/01/23 09:15	08/04/23 12:56	10
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:56	1
Calcium	110		0.20		mg/L		08/01/23 09:15	08/03/23 00:56	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 00:56	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:56	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:56	1
Lithium	0.018		0.010		mg/L		08/01/23 09:15	08/04/23 14:33	1
Molybdenum	0.022		0.0050		mg/L		08/01/23 09:15	08/03/23 00:56	1
Selenium	<0.0025		0.0025		mg/L		08/01/23 09:15	08/03/23 00:56	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 00:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	610		10		mg/L			08/01/23 11:30	1
Chloride (SM 4500 Cl- E)	16		2.0		mg/L			07/28/23 12:42	1
Fluoride (SM 4500 F C)	0.42		0.10		mg/L			07/27/23 11:35	1
Sulfate (SM 4500 SO4 E)	170		50		mg/L			07/27/23 14:06	10

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-09
Date Collected: 07/26/23 13:10
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 00:59	1
Arsenic	0.0087		0.0010		mg/L		08/01/23 09:15	08/03/23 00:59	1
Barium	0.036		0.0025		mg/L		08/01/23 09:15	08/03/23 00:59	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:59	1
Boron	2.0		0.50		mg/L		08/01/23 09:15	08/04/23 13:00	10
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:59	1
Calcium	44		0.20		mg/L		08/01/23 09:15	08/03/23 00:59	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 00:59	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:59	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:59	1
Lithium	<0.010		0.010		mg/L		08/01/23 09:15	08/04/23 14:36	1
Molybdenum	0.074		0.0050		mg/L		08/01/23 09:15	08/03/23 00:59	1
Selenium	<0.0025		0.0025		mg/L		08/01/23 09:15	08/03/23 00:59	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 00:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	720		10		mg/L			08/01/23 11:34	1
Chloride (SM 4500 Cl- E)	190		20		mg/L			07/28/23 12:42	10
Fluoride (SM 4500 F C)	0.49		0.10		mg/L			07/27/23 11:40	1
Sulfate (SM 4500 SO4 E)	250		50		mg/L			07/27/23 14:06	10

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-10
Date Collected: 07/26/23 11:55
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 01:03	1
Arsenic	0.017		0.0010		mg/L		08/01/23 09:15	08/03/23 01:03	1
Barium	0.099		0.0025		mg/L		08/01/23 09:15	08/03/23 01:03	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:03	1
Boron	3.7		0.50		mg/L		08/01/23 09:15	08/04/23 13:03	10
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:03	1
Calcium	120		0.20		mg/L		08/01/23 09:15	08/03/23 01:03	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 01:03	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:03	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:03	1
Lithium	0.017		0.010		mg/L		08/01/23 09:15	08/04/23 14:39	1
Molybdenum	0.097		0.0050		mg/L		08/01/23 09:15	08/03/23 01:03	1
Selenium	<0.0025		0.0025		mg/L		08/01/23 09:15	08/03/23 01:03	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 01:03	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	910		10		mg/L			08/01/23 11:38	1
Chloride (SM 4500 Cl- E)	150		20		mg/L			07/28/23 12:43	10
Fluoride (SM 4500 F C)	0.81		0.10		mg/L			07/27/23 11:44	1
Sulfate (SM 4500 SO4 E)	260		50		mg/L			07/27/23 14:06	10

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-11

Lab Sample ID: 500-237220-5

Date Collected: 07/25/23 10:55

Matrix: Water

Date Received: 07/26/23 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 01:06	1
Arsenic	0.0077		0.0010		mg/L		08/01/23 09:15	08/03/23 01:06	1
Barium	0.14		0.0025		mg/L		08/01/23 09:15	08/03/23 01:06	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:06	1
Boron	2.2		0.50		mg/L		08/01/23 09:15	08/04/23 13:06	10
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:06	1
Calcium	120		0.20		mg/L		08/01/23 09:15	08/03/23 01:06	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 01:06	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:06	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:06	1
Lithium	<0.010		0.010		mg/L		08/01/23 09:15	08/04/23 14:43	1
Molybdenum	0.031		0.0050		mg/L		08/01/23 09:15	08/03/23 01:06	1
Selenium	<0.0025		0.0025		mg/L		08/01/23 09:15	08/03/23 01:06	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 01:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	740		10		mg/L			07/28/23 09:40	1
Chloride (SM 4500 Cl- E)	120		20		mg/L			07/28/23 12:43	10
Fluoride (SM 4500 F C)	0.46		0.10		mg/L			07/27/23 11:48	1
Sulfate (SM 4500 SO4 E)	80		50		mg/L			07/27/23 14:08	10

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-12
Date Collected: 07/25/23 10:03
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 01:09	1
Arsenic	0.0017		0.0010		mg/L		08/01/23 09:15	08/03/23 01:09	1
Barium	0.13		0.0025		mg/L		08/01/23 09:15	08/03/23 01:09	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:09	1
Boron	2.1		0.50		mg/L		08/01/23 09:15	08/04/23 13:10	10
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:09	1
Calcium	180		0.20		mg/L		08/01/23 09:15	08/03/23 01:09	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 01:09	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:09	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:09	1
Lithium	0.017		0.010		mg/L		08/01/23 09:15	08/04/23 14:46	1
Molybdenum	0.026		0.0050		mg/L		08/01/23 09:15	08/03/23 01:09	1
Selenium	0.018		0.0025		mg/L		08/01/23 09:15	08/03/23 01:09	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 01:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100		10		mg/L			07/28/23 09:12	1
Chloride (SM 4500 Cl- E)	180		20		mg/L			07/28/23 12:44	10
Fluoride (SM 4500 F C)	0.44		0.10		mg/L			07/27/23 11:53	1
Sulfate (SM 4500 SO4 E)	190		50		mg/L			07/27/23 14:08	10

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-237220-7

Date Collected: 07/26/23 00:00

Matrix: Water

Date Received: 07/26/23 16:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 01:13	1
Arsenic	0.0013		0.0010		mg/L		08/01/23 09:15	08/03/23 01:13	1
Barium	0.062		0.0025		mg/L		08/01/23 09:15	08/03/23 01:13	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:13	1
Boron	4.8		1.0		mg/L		08/01/23 09:15	08/04/23 13:13	20
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:13	1
Calcium	180		0.20		mg/L		08/01/23 09:15	08/03/23 01:13	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 01:13	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 01:13	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 01:13	1
Lithium	0.021		0.010		mg/L		08/01/23 09:15	08/04/23 14:50	1
Molybdenum	0.053		0.0050		mg/L		08/01/23 09:15	08/03/23 01:13	1
Selenium	0.069		0.0025		mg/L		08/01/23 09:15	08/03/23 01:13	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 01:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1200		10		mg/L			08/01/23 11:40	1
Chloride (SM 4500 Cl- E)	18		2.0		mg/L			07/28/23 13:23	1
Fluoride (SM 4500 F C)	0.50		0.10		mg/L			07/27/23 12:08	1
Sulfate (SM 4500 SO4 E)	430		50		mg/L			07/27/23 17:00	10

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Metals

Prep Batch: 725771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total Recoverable	Water	3005A	
500-237220-2	MW-06	Total Recoverable	Water	3005A	
500-237220-3	MW-09	Total Recoverable	Water	3005A	
500-237220-4	MW-10	Total Recoverable	Water	3005A	
500-237220-5	MW-11	Total Recoverable	Water	3005A	
500-237220-6	MW-12	Total Recoverable	Water	3005A	
500-237220-7	2S/3S Duplicate	Total Recoverable	Water	3005A	
MB 500-725771/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-725771/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 726205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total Recoverable	Water	6020A	725771
500-237220-2	MW-06	Total Recoverable	Water	6020A	725771
500-237220-3	MW-09	Total Recoverable	Water	6020A	725771
500-237220-4	MW-10	Total Recoverable	Water	6020A	725771
500-237220-5	MW-11	Total Recoverable	Water	6020A	725771
500-237220-6	MW-12	Total Recoverable	Water	6020A	725771
500-237220-7	2S/3S Duplicate	Total Recoverable	Water	6020A	725771
MB 500-725771/1-A	Method Blank	Total Recoverable	Water	6020A	725771
LCS 500-725771/2-A	Lab Control Sample	Total Recoverable	Water	6020A	725771

Analysis Batch: 726635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total Recoverable	Water	6020A	725771
500-237220-1	MW-05	Total Recoverable	Water	6020A	725771
500-237220-2	MW-06	Total Recoverable	Water	6020A	725771
500-237220-2	MW-06	Total Recoverable	Water	6020A	725771
500-237220-3	MW-09	Total Recoverable	Water	6020A	725771
500-237220-3	MW-09	Total Recoverable	Water	6020A	725771
500-237220-4	MW-10	Total Recoverable	Water	6020A	725771
500-237220-4	MW-10	Total Recoverable	Water	6020A	725771
500-237220-5	MW-11	Total Recoverable	Water	6020A	725771
500-237220-5	MW-11	Total Recoverable	Water	6020A	725771
500-237220-6	MW-12	Total Recoverable	Water	6020A	725771
500-237220-6	MW-12	Total Recoverable	Water	6020A	725771
500-237220-7	2S/3S Duplicate	Total Recoverable	Water	6020A	725771
500-237220-7	2S/3S Duplicate	Total Recoverable	Water	6020A	725771
MB 500-725771/1-A	Method Blank	Total Recoverable	Water	6020A	725771
LCS 500-725771/2-A	Lab Control Sample	Total Recoverable	Water	6020A	725771

Prep Batch: 727487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	7470A	
500-237220-2	MW-06	Total/NA	Water	7470A	
500-237220-3	MW-09	Total/NA	Water	7470A	
500-237220-4	MW-10	Total/NA	Water	7470A	
500-237220-5	MW-11	Total/NA	Water	7470A	
500-237220-6	MW-12	Total/NA	Water	7470A	
500-237220-7	2S/3S Duplicate	Total/NA	Water	7470A	
MB 500-727487/13-A	Method Blank	Total/NA	Water	7470A	

Eurofins Chicago

QC Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Metals (Continued)

Prep Batch: 727487 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-727487/12-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 727670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	7470A	727487
500-237220-2	MW-06	Total/NA	Water	7470A	727487
500-237220-3	MW-09	Total/NA	Water	7470A	727487
500-237220-4	MW-10	Total/NA	Water	7470A	727487
500-237220-5	MW-11	Total/NA	Water	7470A	727487
500-237220-6	MW-12	Total/NA	Water	7470A	727487
500-237220-7	2S/3S Duplicate	Total/NA	Water	7470A	727487
MB 500-727487/13-A	Method Blank	Total/NA	Water	7470A	727487
LCS 500-727487/12-A	Lab Control Sample	Total/NA	Water	7470A	727487

General Chemistry

Analysis Batch: 725196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	SM 4500 F C	
500-237220-2	MW-06	Total/NA	Water	SM 4500 F C	
500-237220-3	MW-09	Total/NA	Water	SM 4500 F C	
500-237220-4	MW-10	Total/NA	Water	SM 4500 F C	
500-237220-5	MW-11	Total/NA	Water	SM 4500 F C	
500-237220-6	MW-12	Total/NA	Water	SM 4500 F C	
500-237220-7	2S/3S Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-725196/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-725196/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-237220-1 MS	MW-05	Total/NA	Water	SM 4500 F C	
500-237220-1 MSD	MW-05	Total/NA	Water	SM 4500 F C	

Analysis Batch: 725237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-237220-2	MW-06	Total/NA	Water	SM 4500 SO4 E	
500-237220-3	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-237220-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-237220-5	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-237220-6	MW-12	Total/NA	Water	SM 4500 SO4 E	
500-237220-7	2S/3S Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-725237/133	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MB 500-725237/97	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-725237/134	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 500-725237/98	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 725326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-5	MW-11	Total/NA	Water	SM 2540C	
500-237220-6	MW-12	Total/NA	Water	SM 2540C	
MB 500-725326/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-725326/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-237220-6 MS	MW-12	Total/NA	Water	SM 2540C	

Eurofins Chicago

QC Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

General Chemistry

Analysis Batch: 725450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	SM 4500 CI- E	
500-237220-2	MW-06	Total/NA	Water	SM 4500 CI- E	
500-237220-3	MW-09	Total/NA	Water	SM 4500 CI- E	
500-237220-4	MW-10	Total/NA	Water	SM 4500 CI- E	
500-237220-5	MW-11	Total/NA	Water	SM 4500 CI- E	
500-237220-6	MW-12	Total/NA	Water	SM 4500 CI- E	
500-237220-7	2S/3S Duplicate	Total/NA	Water	SM 4500 CI- E	
MB 500-725450/4	Method Blank	Total/NA	Water	SM 4500 CI- E	
MB 500-725450/46	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-725450/47	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
LCS 500-725450/5	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 725803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	SM 2540C	
500-237220-2	MW-06	Total/NA	Water	SM 2540C	
500-237220-3	MW-09	Total/NA	Water	SM 2540C	
500-237220-4	MW-10	Total/NA	Water	SM 2540C	
500-237220-7	2S/3S Duplicate	Total/NA	Water	SM 2540C	
MB 500-725803/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-725803/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-237220-1 MS	MW-05	Total/NA	Water	SM 2540C	
500-237220-2 DU	MW-06	Total/NA	Water	SM 2540C	
500-237220-3 DU	MW-09	Total/NA	Water	SM 2540C	

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-725771/1-A
Matrix: Water
Analysis Batch: 726205

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 725771

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		08/01/23 09:15	08/03/23 00:07	1
Arsenic	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:07	1
Barium	<0.0025		0.0025		mg/L		08/01/23 09:15	08/03/23 00:07	1
Beryllium	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:07	1
Boron	<0.050		0.050		mg/L		08/01/23 09:15	08/03/23 00:07	1
Cadmium	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:07	1
Calcium	<0.20		0.20		mg/L		08/01/23 09:15	08/03/23 00:07	1
Chromium	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 00:07	1
Cobalt	<0.0010		0.0010		mg/L		08/01/23 09:15	08/03/23 00:07	1
Lead	<0.00050		0.00050		mg/L		08/01/23 09:15	08/03/23 00:07	1
Molybdenum	<0.0050		0.0050		mg/L		08/01/23 09:15	08/03/23 00:07	1
Selenium	<0.0025		0.0025		mg/L		08/01/23 09:15	08/03/23 00:07	1
Thallium	<0.0020		0.0020		mg/L		08/01/23 09:15	08/03/23 00:07	1

Lab Sample ID: MB 500-725771/1-A
Matrix: Water
Analysis Batch: 726635

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 725771

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050		0.050		mg/L		08/01/23 09:15	08/04/23 12:46	1
Lithium	<0.010		0.010		mg/L		08/01/23 09:15	08/04/23 12:46	1

Lab Sample ID: LCS 500-725771/2-A
Matrix: Water
Analysis Batch: 726205

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 725771

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0877		mg/L		88	80 - 120
Barium	2.00	1.99		mg/L		99	80 - 120
Beryllium	0.0500	0.0511		mg/L		102	80 - 120
Boron	1.00	1.07		mg/L		107	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	10.0	10.6		mg/L		106	80 - 120
Chromium	0.200	0.211		mg/L		106	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.978		mg/L		98	80 - 120
Selenium	0.100	0.0964		mg/L		96	80 - 120
Thallium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-725771/2-A
Matrix: Water
Analysis Batch: 726635

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 725771

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.500	0.508		mg/L		102	80 - 120

Eurofins Chicago

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-727487/13-A
Matrix: Water
Analysis Batch: 727670

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 727487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/11/23 10:00	08/14/23 08:40	1

Lab Sample ID: LCS 500-727487/12-A
Matrix: Water
Analysis Batch: 727670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 727487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00201		mg/L		100	80 - 120

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

Lab Sample ID: MB 500-725326/1
Matrix: Water
Analysis Batch: 725326

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			07/28/23 09:08	1

Lab Sample ID: LCS 500-725326/2
Matrix: Water
Analysis Batch: 725326

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	286		mg/L		114	80 - 120

Lab Sample ID: 500-237220-6 MS
Matrix: Water
Analysis Batch: 725326

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1100		250	1380	4	mg/L		111	75 - 125

Lab Sample ID: MB 500-725803/1
Matrix: Water
Analysis Batch: 725803

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/01/23 11:23	1

Lab Sample ID: LCS 500-725803/2
Matrix: Water
Analysis Batch: 725803

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	294		mg/L		118	80 - 120

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

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

Lab Sample ID: 500-237220-1 MS
Matrix: Water
Analysis Batch: 725803

Client Sample ID: MW-05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1200		250	1440	4	mg/L		114	75 - 125

Lab Sample ID: 500-237220-2 DU
Matrix: Water
Analysis Batch: 725803

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	610		608		mg/L		0.7	5

Lab Sample ID: 500-237220-3 DU
Matrix: Water
Analysis Batch: 725803

Client Sample ID: MW-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	720		720		mg/L		0.6	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-725450/4
Matrix: Water
Analysis Batch: 725450

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/28/23 12:38	1

Lab Sample ID: MB 500-725450/46
Matrix: Water
Analysis Batch: 725450

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/28/23 13:23	1

Lab Sample ID: LCS 500-725450/47
Matrix: Water
Analysis Batch: 725450

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.1		mg/L		100	85 - 115

Lab Sample ID: LCS 500-725450/5
Matrix: Water
Analysis Batch: 725450

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.1		mg/L		101	85 - 115

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-725196/3
 Matrix: Water
 Analysis Batch: 725196

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/27/23 11:14	1

Lab Sample ID: LCS 500-725196/4
 Matrix: Water
 Analysis Batch: 725196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.3		mg/L		103	90 - 119

Lab Sample ID: 500-237220-1 MS
 Matrix: Water
 Analysis Batch: 725196

Client Sample ID: MW-05
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.50		5.00	5.56		mg/L		101	75 - 125

Lab Sample ID: 500-237220-1 MSD
 Matrix: Water
 Analysis Batch: 725196

Client Sample ID: MW-05
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.50		5.00	5.53		mg/L		101	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-725237/133
 Matrix: Water
 Analysis Batch: 725237

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			07/27/23 16:59	1

Lab Sample ID: MB 500-725237/97
 Matrix: Water
 Analysis Batch: 725237

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			07/27/23 14:00	1

Lab Sample ID: LCS 500-725237/134
 Matrix: Water
 Analysis Batch: 725237

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	20.9		mg/L		104	88 - 123

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-725237/98
Matrix: Water
Analysis Batch: 725237

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	20.8		mg/L		104	88 - 123

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

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-237220-1

Login Number: 237220

List Number: 1

Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7,2.5,5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-05
Date Collected: 07/26/23 08:49
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 00:52
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		20	726635	FXG	EET CHI	08/04/23 12:53
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:29
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:47
Total/NA	Analysis	SM 2540C		1	725803	MB	EET CHI	08/01/23 11:26
Total/NA	Analysis	SM 4500 CI- E		1	725450	MM	EET CHI	07/28/23 12:42
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 11:22
Total/NA	Analysis	SM 4500 SO4 E		20	725237	MM	EET CHI	07/27/23 14:05

Client Sample ID: MW-06
Date Collected: 07/26/23 10:56
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 00:56
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		10	726635	FXG	EET CHI	08/04/23 12:56
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:33
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:49
Total/NA	Analysis	SM 2540C		1	725803	MB	EET CHI	08/01/23 11:30
Total/NA	Analysis	SM 4500 CI- E		1	725450	MM	EET CHI	07/28/23 12:42
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 11:35
Total/NA	Analysis	SM 4500 SO4 E		10	725237	MM	EET CHI	07/27/23 14:06

Client Sample ID: MW-09
Date Collected: 07/26/23 13:10
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 00:59
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		10	726635	FXG	EET CHI	08/04/23 13:00
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:36
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:51

Eurofins Chicago

Lab Chronicle

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-09

Date Collected: 07/26/23 13:10

Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	725803	MB	EET CHI	08/01/23 11:34
Total/NA	Analysis	SM 4500 CI- E		10	725450	MM	EET CHI	07/28/23 12:42
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 11:40
Total/NA	Analysis	SM 4500 SO4 E		10	725237	MM	EET CHI	07/27/23 14:06

Client Sample ID: MW-10

Date Collected: 07/26/23 11:55

Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 01:03
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		10	726635	FXG	EET CHI	08/04/23 13:03
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:39
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:53
Total/NA	Analysis	SM 2540C		1	725803	MB	EET CHI	08/01/23 11:38
Total/NA	Analysis	SM 4500 CI- E		10	725450	MM	EET CHI	07/28/23 12:43
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 11:44
Total/NA	Analysis	SM 4500 SO4 E		10	725237	MM	EET CHI	07/27/23 14:06

Client Sample ID: MW-11

Date Collected: 07/25/23 10:55

Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 01:06
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		10	726635	FXG	EET CHI	08/04/23 13:06
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:43
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:55
Total/NA	Analysis	SM 2540C		1	725326	MB	EET CHI	07/28/23 09:40
Total/NA	Analysis	SM 4500 CI- E		10	725450	MM	EET CHI	07/28/23 12:43
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 11:48
Total/NA	Analysis	SM 4500 SO4 E		10	725237	MM	EET CHI	07/27/23 14:08

Lab Chronicle

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR

Job ID: 500-237220-1

Client Sample ID: MW-12
Date Collected: 07/25/23 10:03
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 01:09
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		10	726635	FXG	EET CHI	08/04/23 13:10
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:46
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:57
Total/NA	Analysis	SM 2540C		1	725326	MB	EET CHI	07/28/23 09:12
Total/NA	Analysis	SM 4500 Cl- E		10	725450	MM	EET CHI	07/28/23 12:44
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 11:53
Total/NA	Analysis	SM 4500 SO4 E		10	725237	MM	EET CHI	07/27/23 14:08

Client Sample ID: 2S/3S Duplicate
Date Collected: 07/26/23 00:00
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726205	FXG	EET CHI	08/03/23 01:13
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		20	726635	FXG	EET CHI	08/04/23 13:13
Total Recoverable	Prep	3005A			725771	BDE	EET CHI	08/01/23 09:15 - 08/01/23 09:45 ¹
Total Recoverable	Analysis	6020A		1	726635	FXG	EET CHI	08/04/23 14:50
Total/NA	Prep	7470A			727487	MJG	EET CHI	08/11/23 10:00 - 08/11/23 12:00 ¹
Total/NA	Analysis	7470A		1	727670	MJG	EET CHI	08/14/23 08:59
Total/NA	Analysis	SM 2540C		1	725803	MB	EET CHI	08/01/23 11:40
Total/NA	Analysis	SM 4500 Cl- E		1	725450	MM	EET CHI	07/28/23 13:23
Total/NA	Analysis	SM 4500 F C		1	725196	EH	EET CHI	07/27/23 12:08
Total/NA	Analysis	SM 4500 SO4 E		10	725237	MM	EET CHI	07/27/23 17:00

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

Laboratory References:

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



ANALYTICAL REPORT

PREPARED FOR

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 8/24/2023 9:47:12 AM

JOB DESCRIPTION

Will County 2S/3S CCR (RAD)
Quarterly GW Monitoring

JOB NUMBER

500-237220-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
8/24/2023 9:47:12 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	14
QC Association	15
QC Sample Results	16
Chain of Custody	18
Receipt Checklists	20
Chronicle	22
Tracer Carrier Summary	24

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Job ID: 500-237220-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-237220-2

Receipt

The samples were received on 7/26/2023 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.7°C, 2.5°C and 5.4°C

Gas Flow Proportional Counter

Method 903.0: Radium-226 batch 622153 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-05 (500-237220-1), MW-06 (500-237220-2), MW-09 (500-237220-3), MW-10 (500-237220-4), MW-11 (500-237220-5), MW-12 (500-237220-6), 2S/3S Duplicate (500-237220-7), (LCS 160-622153/2-A), (MB 160-622153/1-A) and (500-237220-D-7-A DU)

Method 904.0: Radium-228 batch 622159 Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-05 (500-237220-1), MW-06 (500-237220-2), MW-09 (500-237220-3), MW-10 (500-237220-4), MW-11 (500-237220-5), MW-12 (500-237220-6), 2S/3S Duplicate (500-237220-7), (LCS 160-622159/2-A), (MB 160-622159/1-A) and (500-237220-D-7-B DU)

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

Rad

Radium-226 Prep Batch 160-622153 The following sample was prepared at a reduced aliquot due to matrix. The sample 890-4998-1 was cloudy. The rest of the selected samples were slightly cloudy. MW-10 (500-237220-4)

Radium-228 Prep Batch 160-622159 The following sample was prepared at a reduced aliquot due to matrix. The sample 890-4998-1 was cloudy. The rest of the selected samples were slightly cloudy. MW-10 (500-237220-4)

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

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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



Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-237220-1	MW-05	Water	07/26/23 08:49	07/26/23 16:40
500-237220-2	MW-06	Water	07/26/23 10:56	07/26/23 16:40
500-237220-3	MW-09	Water	07/26/23 13:10	07/26/23 16:40
500-237220-4	MW-10	Water	07/26/23 11:55	07/26/23 16:40
500-237220-5	MW-11	Water	07/25/23 10:55	07/26/23 16:40
500-237220-6	MW-12	Water	07/25/23 10:03	07/26/23 16:40
500-237220-7	2S/3S Duplicate	Water	07/26/23 00:00	07/26/23 16:40

1

2

3

4

5

6

7

8

9

10

11

12

13

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-05
Date Collected: 07/26/23 08:49
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-1
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0672	U	0.0772	0.0775	1.00	0.126	pCi/L	07/31/23 10:32	08/22/23 08:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		30 - 110					07/31/23 10:32	08/22/23 08:19	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.756		0.396	0.402	1.00	0.547	pCi/L	07/31/23 10:36	08/14/23 14:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		30 - 110					07/31/23 10:36	08/14/23 14:23	1
Y Carrier	87.5		30 - 110					07/31/23 10:36	08/14/23 14:23	1

Method: TAL-STL 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	0.823		0.403	0.409	5.00	0.547	pCi/L		08/23/23 16:36	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-06
Date Collected: 07/26/23 10:56
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-2
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.212		0.111	0.112	1.00	0.123	pCi/L	07/31/23 10:32	08/22/23 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		30 - 110					07/31/23 10:32	08/22/23 08:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.139	U	0.318	0.318	1.00	0.653	pCi/L	07/31/23 10:36	08/14/23 14:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		30 - 110					07/31/23 10:36	08/14/23 14:23	1
Y Carrier	86.7		30 - 110					07/31/23 10:36	08/14/23 14:23	1

Method: TAL-STL 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	0.0729	U	0.337	0.337	5.00	0.653	pCi/L		08/23/23 16:36	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-09

Lab Sample ID: 500-237220-3

Date Collected: 07/26/23 13:10

Matrix: Water

Date Received: 07/26/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.152		0.0904	0.0914	1.00	0.114	pCi/L	07/31/23 10:32	08/22/23 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.7		30 - 110					07/31/23 10:32	08/22/23 08:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.140	U	0.413	0.413	1.00	0.733	pCi/L	07/31/23 10:36	08/14/23 14:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.7		30 - 110					07/31/23 10:36	08/14/23 14:23	1
Y Carrier	85.6		30 - 110					07/31/23 10:36	08/14/23 14:23	1

Method: TAL-STL 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	0.292	U	0.423	0.423	5.00	0.733	pCi/L		08/23/23 16:36	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-10

Lab Sample ID: 500-237220-4

Date Collected: 07/26/23 11:55

Matrix: Water

Date Received: 07/26/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.349		0.140	0.143	1.00	0.140	pCi/L	07/31/23 10:32	08/22/23 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					07/31/23 10:32	08/22/23 08:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.610	U	0.539	0.542	1.00	0.844	pCi/L	07/31/23 10:36	08/14/23 14:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					07/31/23 10:36	08/14/23 14:23	1
Y Carrier	78.5		30 - 110					07/31/23 10:36	08/14/23 14:23	1

Method: TAL-STL 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	0.959		0.557	0.561	5.00	0.844	pCi/L		08/23/23 16:36	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-11

Lab Sample ID: 500-237220-5

Date Collected: 07/25/23 10:55

Matrix: Water

Date Received: 07/26/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.335		0.141	0.144	1.00	0.146	pCi/L	07/31/23 10:32	08/22/23 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.6		30 - 110					07/31/23 10:32	08/22/23 08:20	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.683	U	0.539	0.543	1.00	0.823	pCi/L	07/31/23 10:36	08/14/23 14:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.6		30 - 110					07/31/23 10:36	08/14/23 14:23	1
Y Carrier	78.9		30 - 110					07/31/23 10:36	08/14/23 14:23	1

Method: TAL-STL 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	1.02		0.557	0.562	5.00	0.823	pCi/L		08/23/23 16:36	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-12

Lab Sample ID: 500-237220-6

Date Collected: 07/25/23 10:03

Matrix: Water

Date Received: 07/26/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144		0.0918	0.0927	1.00	0.121	pCi/L	07/31/23 10:32	08/22/23 08:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					07/31/23 10:32	08/22/23 08:21	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.316	U	0.400	0.401	1.00	0.664	pCi/L	07/31/23 10:36	08/14/23 14:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					07/31/23 10:36	08/14/23 14:23	1
Y Carrier	81.5		30 - 110					07/31/23 10:36	08/14/23 14:23	1

Method: TAL-STL 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	0.460	U	0.410	0.412	5.00	0.664	pCi/L		08/23/23 16:36	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-237220-7

Date Collected: 07/26/23 00:00

Matrix: Water

Date Received: 07/26/23 16:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0909	U	0.0796	0.0801	1.00	0.118	pCi/L	07/31/23 10:32	08/22/23 08:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					07/31/23 10:32	08/22/23 08:21	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.972		0.547	0.554	1.00	0.792	pCi/L	07/31/23 10:36	08/14/23 14:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		30 - 110					07/31/23 10:36	08/14/23 14:28	1
Y Carrier	84.5		30 - 110					07/31/23 10:36	08/14/23 14:28	1

Method: TAL-STL 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	1.06		0.553	0.560	5.00	0.792	pCi/L		08/23/23 16:36	1

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

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.
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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Rad

Prep Batch: 622153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	PrecSep-21	
500-237220-2	MW-06	Total/NA	Water	PrecSep-21	
500-237220-3	MW-09	Total/NA	Water	PrecSep-21	
500-237220-4	MW-10	Total/NA	Water	PrecSep-21	
500-237220-5	MW-11	Total/NA	Water	PrecSep-21	
500-237220-6	MW-12	Total/NA	Water	PrecSep-21	
500-237220-7	2S/3S Duplicate	Total/NA	Water	PrecSep-21	
MB 160-622153/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-622153/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-237220-7 DU	2S/3S Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 622159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237220-1	MW-05	Total/NA	Water	PrecSep_0	
500-237220-2	MW-06	Total/NA	Water	PrecSep_0	
500-237220-3	MW-09	Total/NA	Water	PrecSep_0	
500-237220-4	MW-10	Total/NA	Water	PrecSep_0	
500-237220-5	MW-11	Total/NA	Water	PrecSep_0	
500-237220-6	MW-12	Total/NA	Water	PrecSep_0	
500-237220-7	2S/3S Duplicate	Total/NA	Water	PrecSep_0	
MB 160-622159/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-622159/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-237220-7 DU	2S/3S Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-622153/1-A
Matrix: Water
Analysis Batch: 625099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622153

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01269	U	0.0413	0.0413	1.00	0.0993	pCi/L	07/31/23 10:32	08/22/23 08:00	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	88.7		30 - 110			07/31/23 10:32	08/22/23 08:00	1		

Lab Sample ID: LCS 160-622153/2-A
Matrix: Water
Analysis Batch: 625099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622153

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.49		1.10	1.00	0.107	pCi/L	93	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	94.6		30 - 110						

Lab Sample ID: 500-237220-7 DU
Matrix: Water
Analysis Batch: 625099

Client Sample ID: 2S/3S Duplicate
Prep Type: Total/NA
Prep Batch: 622153

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0909	U	0.05405	U	0.0651	1.00	0.106	pCi/L	0.25	1
Carrier	DU %Yield	DU Qualifier	Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	81.9		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-622159/1-A
Matrix: Water
Analysis Batch: 624094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622159

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3418	U	0.403	0.404	1.00	0.664	pCi/L	07/31/23 10:36	08/14/23 14:25	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	88.7		30 - 110			07/31/23 10:36	08/14/23 14:25	1		
Y Carrier	80.4		30 - 110			07/31/23 10:36	08/14/23 14:25	1		

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-622159/2-A
Matrix: Water
Analysis Batch: 624094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622159

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.96	6.517		1.03	1.00	0.504	pCi/L	82	75 - 125
LCS LCS									
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	94.6		30 - 110						
Y Carrier	85.2		30 - 110						

Lab Sample ID: 500-237220-7 DU
Matrix: Water
Analysis Batch: 624093

Client Sample ID: 2S/3S Duplicate
Prep Type: Total/NA
Prep Batch: 622159

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.972		0.3348	U	0.504	1.00	0.849	pCi/L	0.60	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.9		30 - 110							
Y Carrier	83.7		30 - 110							



Client Information (Sub Contract Lab)			Lab PM:		Camer Tracking No(s):		COC No:		
Client Contact: Shipping/Receiving			Mockler, Diana J				500-177111.1		
Company: TestAmerica Laboratories, Inc.			E-Mail: Diana.Mockler@et.eurofins.com		State of Origin: Wisconsin		Page: 1 of 1		
Address: 13715 Rider Trail North,			Accreditations Required (See note): NELAP - Illinois		Job #: 500-237220-2		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
City: Earth City			Due Date Requested: 8/29/2023		Analysis Requested		Total Number of Containers		
State, Zip: MO, 63045			TAT Requested (days):						
Phone: 314-298-8566(Tel) 314-298-8757(Fax)			PO #:						
Email:			WO #:						
Project Name: Will County 2S/3S CCR (RAD)			Project #: 50011609						
Site: NRG Midwest Generation Will County			SSOW#:						
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	90.3/0/PreSep_21 Standard Target List	90.4/0/PreSep_0 Standard Target List	R226Ra228 GPC
MW-05 (500-237220-1)	7/26/23	08:49 Central	Water	Water	X	X	X	X	3
MW-06 (500-237220-2)	7/26/23	10:56 Central	Water	Water	X	X	X	X	3
MW-09 (500-237220-3)	7/26/23	13:10 Central	Water	Water	X	X	X	X	3
MW-10 (500-237220-4)	7/26/23	11:55 Central	Water	Water	X	X	X	X	3
MW-11 (500-237220-5)	7/25/23	10:55 Central	Water	Water	X	X	X	X	3
MW-12 (500-237220-6)	7/25/23	10:03 Central	Water	Water	X	X	X	X	3
2S/3S Duplicate (500-237220-7)	7/26/23	Central	Water	Water	X	X	X	X	3
<p>Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.</p>									
<p>Possible Hazard Identification</p> <p>Unconfirmed <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2</p> <p>Empty Kit Relinquished by: _____ Date: _____ Time: _____</p> <p>Relinquished by: <i>Brand</i> Date: 7/27/23 Time: 10:00 Company: FE TA</p> <p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Company: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Custody Seal No.: _____</p> <p style="text-align: right;">Cooler Temperature(s) °C and Other Remarks: _____</p>									



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-237220-2

Login Number: 237220

List Source: Eurofins Chicago

List Number: 1

Creator: Hernandez, Stephanie

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7,2.5,5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-237220-2

Login Number: 237220

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 07/28/23 11:53 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	



Lab Chronicle

Client: Midwest Generation EME LLC
 Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-05
Date Collected: 07/26/23 08:49
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:19
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624094	FLC	EET SL	08/14/23 14:23
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Client Sample ID: MW-06
Date Collected: 07/26/23 10:56
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:20
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624094	FLC	EET SL	08/14/23 14:23
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Client Sample ID: MW-09
Date Collected: 07/26/23 13:10
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:20
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624094	FLC	EET SL	08/14/23 14:23
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Client Sample ID: MW-10
Date Collected: 07/26/23 11:55
Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:20
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624094	FLC	EET SL	08/14/23 14:23
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Client Sample ID: MW-11

Date Collected: 07/25/23 10:55

Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:20
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624094	FLC	EET SL	08/14/23 14:23
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Client Sample ID: MW-12

Date Collected: 07/25/23 10:03

Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:21
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624094	FLC	EET SL	08/14/23 14:23
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Client Sample ID: 2S/3S Duplicate

Date Collected: 07/26/23 00:00

Date Received: 07/26/23 16:40

Lab Sample ID: 500-237220-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			622153	KAC	EET SL	07/31/23 10:32
Total/NA	Analysis	903.0		1	625099	FLC	EET SL	08/22/23 08:21
Total/NA	Prep	PrecSep_0			622159	KAC	EET SL	07/31/23 10:36
Total/NA	Analysis	904.0		1	624093	SWS	EET SL	08/14/23 14:28
Total/NA	Analysis	Ra226_Ra228		1	625293	SCB	EET SL	08/23/23 16:36

Laboratory References:

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

Tracer/Carrier Summary

Client: Midwest Generation EME LLC
Project/Site: Will County 2S/3S CCR (RAD)

Job ID: 500-237220-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
500-237220-1	MW-05	90.0
500-237220-2	MW-06	82.1
500-237220-3	MW-09	77.7
500-237220-4	MW-10	83.3
500-237220-5	MW-11	81.6
500-237220-6	MW-12	83.3
500-237220-7	2S/3S Duplicate	84.3
500-237220-7 DU	2S/3S Duplicate	81.9
LCS 160-622153/2-A	Lab Control Sample	94.6
MB 160-622153/1-A	Method Blank	88.7

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-237220-1	MW-05	90.0	87.5
500-237220-2	MW-06	82.1	86.7
500-237220-3	MW-09	77.7	85.6
500-237220-4	MW-10	83.3	78.5
500-237220-5	MW-11	81.6	78.9
500-237220-6	MW-12	83.3	81.5
500-237220-7	2S/3S Duplicate	84.3	84.5
500-237220-7 DU	2S/3S Duplicate	81.9	83.7
LCS 160-622159/2-A	Lab Control Sample	94.6	85.2
MB 160-622159/1-A	Method Blank	88.7	80.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 9/18/2023 12:22:51 PM

JOB DESCRIPTION

Will County CCR MW-05 Se Resample

JOB NUMBER

500-238798-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
9/18/2023 12:22:51 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	8
QC Association	9
QC Sample Results	10
Chain of Custody	11
Receipt Checklists	14
Chronicle	16

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

Job ID: 500-238798-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-238798-1**

Receipt

The sample was received on 8/29/2023 4:40 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 7.6° C.

Metals

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

1

2

3

4

5

6

7

8

9

10

11

12

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

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

Laboratory References:

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

1

2

3

4

5

6

7

8

9

10

11

12

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-238798-1	MW-05	Water	08/29/23 15:00	08/29/23 16:40

1

2

3

4

5

6

7

8

9

10

11

12

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

Client Sample ID: MW-05
Date Collected: 08/29/23 15:00
Date Received: 08/29/23 16:40

Lab Sample ID: 500-238798-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.069		0.0050		mg/L		09/01/23 09:00	09/15/23 15:43	1

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

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

Metals

Prep Batch: 398372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238798-1	MW-05	Total/NA	Water	3005A	
MB 310-398372/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-398372/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 399739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238798-1	MW-05	Total/NA	Water	6020B	398372
MB 310-398372/1-A	Method Blank	Total/NA	Water	6020B	398372
LCS 310-398372/2-A	Lab Control Sample	Total/NA	Water	6020B	398372

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-398372/1-A
Matrix: Water
Analysis Batch: 399739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 398372

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0050		0.0050		mg/L		09/01/23 09:00	09/15/23 14:40	1

Lab Sample ID: LCS 310-398372/2-A
Matrix: Water
Analysis Batch: 399739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 398372

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Selenium	0.400	0.353		mg/L		88	80 - 120



Eurofins Chicago

2417 Bond Street
University Park IL 60484
Phone 708 534-5200 Fax 708-534-5211

Chain of Custody Record



eurofins

Client Information		Sampler <i>LAW JOHN HANLON</i>		Lab PM Mockler Diana J		COC No 500 106660-45300 1											
Client Contact <i>Mitchel Dolan KAELYN SPERLE</i>		Phone <i>630 290 6250</i>		E Mail Diana Mockler@et eurofins.com		Page Page 1 of 1											
Company KPRG and Associates Inc		PWSID		Analysis Requested		Job # <i>500-138798</i>											
Address 414 Plaza Drive Suite 106		Due Date Requested		Field Filtered Sample (Yes or No) Perform MSMSD (Yes or No) 6010C, 6020A, 7470A 2540C 4500_F_C_SM4500_CL_E_SM4500_SO4_E TOTAL SELENIUM ONLY		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 R Na2S2O3 F MeOH S H2SO4 G Amchlor T TSP Dodecahydrate H Ascorbic Ac d U Acetone I Ice V MCAA J DI Water W pH 4 5 K EDTA Y Trizma L EDA Z othe (specify) Other											
City Westmont		TAT Requested (days)															
State Zip IL 60559		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No															
Phone <i>262-278-1621</i>		PO # 4502081393															
Email <i>mitche@d@kprginc.com KAELYN@KPRGINC.COM</i>		WO #		Total Number of containers		Special Instructions/Note											
Project Name Will County 2S/3S Event Desc: Quarterly GW Monitoring		Project # 50011609		Total Number of containers													
Site Illinois		SSOW#		Total Number of containers		Special Instructions/Note											
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue A=Air)		Field Filtered Sample (Yes or No)		Perform MSMSD (Yes or No)		Total Number of containers		Special Instructions/Note	
MW 05		8-29-23		15:00		GF		Water		N		X		1		TOTAL SELENIUM ONLY	
MW-06								Water									
MW-09								Water									
MW 10								Water									
MW 11								Water									
MW 12								Water									
2S/3S Duplicate								Water									
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
<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						<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		Date		Time		Method of Shipment.											
Relinquished by <i>[Signature]</i>		Date/Time <i>8-29-23 16:40</i>		Company <i>KPRG</i>		Received by <i>Stephanie Hamondy</i>		Date/Time <i>8/29/23 1640</i>		Company <i>EETA</i>							
Relinquished by		Date/Time		Company		Received by		Date/Time		Company							
Relinquished by		Date/Time		Company		Received by		Date/Time		Company							
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks <i>7.1+7.6</i>													





Environment Testing
America



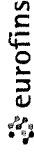
500-238798 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>Chicago</u>			
City/State:	CITY	STATE	Project:
		<u>IL</u>	
Receipt Information			
Date/Time Received:	DATE	TIME	Received By:
	<u>8-31-23</u>	<u>1000</u>	<u>MC</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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler # _____ of _____			
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>R</u>		Correction Factor (°C): <u>0</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	CONTAINER 2	
	<u>250 ml plastic</u>		
Uncorrected Temp (°C):	<u>0.7</u>		
Corrected Temp (°C):	<u>0.7</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			



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab Piv: Mockler, Diana J		Carrier Tracking No(s): 500-178452 1	
Client Contact: Shipping/Receiving		E-Mail: Diana Mockler@et.eurofins.com		Page: Page 1 of 1	
Company: Eurofins Environment Testing North Center		Accreditations Required (See note): NELAP - Illinois		Job #: 500-238798-1	
Address: 3019 Venture Way.		Due Date Requested: 9/12/2023		Preservation Codes: M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - NaHSO4, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, X - EDTA, Y - Trizma, Z - other (specify) Other	
City: Cedar Falls		TAT Requested (days):		Analysis Requested	
State, Zip: IA, 50613		PO #:			
Phone: 319-277-2401(Tel) 319-277-2425(Fax)		WO #:			
Email:		Project #: 50011609			
Site: NRG Midwest Generation Will County		SSOW#:			
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time	
MW-05 (500-238798-1)		8/29/23		15 00 Central	
Matrix (W=water, S=solid, O=over soil, BT=Butter, A=Air)		Sample Type (C=comp, G=grab)		Preservation Code:	
Water				Water	
Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		Total Number of Containers	
6020B/3005A_TOT (MOD) Se		X		1	
Special Instructions/Note:					

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements

Primary Deliverable Rank 2

Empty Kit Relinquished by _____ Date _____ Time _____

Relinquished by *[Signature]* Date/Time: 8/30/23 1510 Company: _____

Relinquished by _____ Date/Time: _____ Company: _____

Relinquished by _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No Custody Seal No

Method of Shipment: _____ Date/Time: 8-31-23 1000 Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-238798-1

Login Number: 238798

List Number: 1

Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	7.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-238798-1

Login Number: 238798

List Number: 2

Creator: Costello, Mackenzie K

List Source: Eurofins Cedar Falls

List Creation: 08/31/23 11:36 AM

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?	False	Received project as a subcontract.
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	

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Se Resample

Job ID: 500-238798-1

Client Sample ID: MW-05
Date Collected: 08/29/23 15:00
Date Received: 08/29/23 16:40

Lab Sample ID: 500-238798-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			398372	KCK5	EET CF	09/01/23 09:00
Total/NA	Analysis	6020B		1	399739	DHM5	EET CF	09/15/23 15:43

Laboratory References:

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



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 11/14/2023 11:28:50 AM

JOB DESCRIPTION

Will County CCR

JOB NUMBER

500-241311-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
11/14/2023 11:28:50 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	9
QC Association	10
QC Sample Results	12
Chain of Custody	16
Receipt Checklists	17
Chronicle	18

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Job ID: 500-241311-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-241311-1

Receipt

The samples were received on 10/19/2023 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.3° C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). Added to COC and logged in without any analysis.

Metals

Method 6020B: The initial calibration verification (ICV) result for batch 739840 was above the 90-110% upper control limit for Tl (111%). Sample results were below the reporting limit and have been reported as qualified data.

Method 6020B: The continuing calibration verification (CCV) associated with batch 740085 and the LCS for prep batch 738371 recovered above the upper control limit for Be. The samples associated with this CCV and LCS were non-detects for the affected analytes; therefore, the data have been reported.

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.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

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:

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-241311-1	MW-11	Water	10/19/23 11:16	10/19/23 16:30
500-241311-2	MW-12	Water	10/19/23 12:00	10/19/23 16:30

1

2

3

4

5

6

7

8

9

10

11

12

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241311-1

Client Sample ID: MW-11
Date Collected: 10/19/23 11:16
Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.010		0.0010		mg/L		10/23/23 08:58	10/31/23 16:23	1
Boron	3.0		0.050		mg/L		10/23/23 08:58	11/02/23 22:16	1
Barium	0.16		0.0025		mg/L		10/23/23 08:58	10/31/23 16:23	1
Beryllium	<0.0010	*+ ^+	0.0010		mg/L		10/23/23 08:58	11/02/23 05:21	1
Calcium	120		0.20		mg/L		10/23/23 08:58	10/31/23 16:23	1
Cadmium	<0.00050		0.00050		mg/L		10/23/23 08:58	10/31/23 16:23	1
Cobalt	<0.0010		0.0010		mg/L		10/23/23 08:58	10/31/23 16:23	1
Chromium	<0.0050		0.0050		mg/L		10/23/23 08:58	10/31/23 16:23	1
Molybdenum	0.044		0.0050		mg/L		10/23/23 08:58	10/31/23 16:23	1
Lead	<0.00050		0.00050		mg/L		10/23/23 08:58	10/31/23 16:23	1
Antimony	<0.0030		0.0030		mg/L		10/23/23 08:58	10/31/23 16:23	1
Selenium	<0.0025		0.0025		mg/L		10/23/23 08:58	10/31/23 16:23	1
Thallium	<0.0020	^1+	0.0020		mg/L		10/23/23 08:58	10/31/23 16:23	1
Lithium	<0.010		0.010		mg/L		11/09/23 19:29	11/13/23 17:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/26/23 11:10	11/01/23 11:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	770		10		mg/L			10/23/23 19:43	1
Chloride (SM 4500 Cl- E)	120		20		mg/L			10/25/23 14:51	10
Fluoride (SM 4500 F C)	0.55		0.10		mg/L			11/02/23 12:33	1
Sulfate (SM 4500 SO4 E)	74		50		mg/L			10/24/23 11:01	10

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241311-1

Client Sample ID: MW-12
Date Collected: 10/19/23 12:00
Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0010		mg/L		10/23/23 08:58	10/31/23 16:26	1
Boron	2.2		0.050		mg/L		10/23/23 08:58	11/02/23 22:20	1
Barium	0.18		0.0025		mg/L		10/23/23 08:58	10/31/23 16:26	1
Beryllium	<0.0010	*+ ^+	0.0010		mg/L		10/23/23 08:58	11/02/23 05:24	1
Calcium	180		0.20		mg/L		10/23/23 08:58	10/31/23 16:26	1
Cadmium	<0.00050		0.00050		mg/L		10/23/23 08:58	10/31/23 16:26	1
Cobalt	<0.0010		0.0010		mg/L		10/23/23 08:58	10/31/23 16:26	1
Chromium	<0.0050		0.0050		mg/L		10/23/23 08:58	10/31/23 16:26	1
Molybdenum	0.027		0.0050		mg/L		10/23/23 08:58	10/31/23 16:26	1
Lead	<0.00050		0.00050		mg/L		10/23/23 08:58	10/31/23 16:26	1
Antimony	<0.0030		0.0030		mg/L		10/23/23 08:58	10/31/23 16:26	1
Selenium	0.0040		0.0025		mg/L		10/23/23 08:58	10/31/23 16:26	1
Thallium	<0.0020	^1+	0.0020		mg/L		10/23/23 08:58	10/31/23 16:26	1
Lithium	0.014		0.010		mg/L		11/09/23 19:29	11/13/23 17:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/26/23 11:10	11/01/23 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100		10		mg/L			10/23/23 19:46	1
Chloride (SM 4500 Cl- E)	180		40		mg/L			10/25/23 14:52	20
Fluoride (SM 4500 F C)	0.47		0.10		mg/L			11/02/23 12:37	1
Sulfate (SM 4500 SO4 E)	170		100		mg/L			10/24/23 10:57	20

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.

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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Metals

Prep Batch: 738371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total Recoverable	Water	3005A	
500-241311-2	MW-12	Total Recoverable	Water	3005A	
MB 500-738371/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-738371/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 738961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	7470A	
500-241311-2	MW-12	Total/NA	Water	7470A	
MB 500-738961/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-738961/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 739840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total Recoverable	Water	6020B	738371
500-241311-2	MW-12	Total Recoverable	Water	6020B	738371
MB 500-738371/1-A	Method Blank	Total Recoverable	Water	6020B	738371
LCS 500-738371/2-A	Lab Control Sample	Total Recoverable	Water	6020B	738371

Analysis Batch: 739992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	7470A	738961
500-241311-2	MW-12	Total/NA	Water	7470A	738961
MB 500-738961/12-A	Method Blank	Total/NA	Water	7470A	738961
LCS 500-738961/13-A	Lab Control Sample	Total/NA	Water	7470A	738961

Analysis Batch: 740085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total Recoverable	Water	6020B	738371
500-241311-2	MW-12	Total Recoverable	Water	6020B	738371
MB 500-738371/1-A	Method Blank	Total Recoverable	Water	6020B	738371
LCS 500-738371/2-A	Lab Control Sample	Total Recoverable	Water	6020B	738371

Analysis Batch: 740421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total Recoverable	Water	6020B	738371
500-241311-2	MW-12	Total Recoverable	Water	6020B	738371
MB 500-738371/1-A	Method Blank	Total Recoverable	Water	6020B	738371
LCS 500-738371/2-A	Lab Control Sample	Total Recoverable	Water	6020B	738371

Prep Batch: 741523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total Recoverable	Water	3005A	
500-241311-2	MW-12	Total Recoverable	Water	3005A	
MB 500-741523/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-741523/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 742038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total Recoverable	Water	6020B	741523
500-241311-2	MW-12	Total Recoverable	Water	6020B	741523

Eurofins Chicago

QC Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Metals (Continued)

Analysis Batch: 742038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-741523/1-A	Method Blank	Total Recoverable	Water	6020B	741523
LCS 500-741523/2-A	Lab Control Sample	Total Recoverable	Water	6020B	741523

General Chemistry

Analysis Batch: 738473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	SM 2540C	
500-241311-2	MW-12	Total/NA	Water	SM 2540C	
MB 500-738473/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-738473/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 738638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-241311-2	MW-12	Total/NA	Water	SM 4500 SO4 E	
MB 500-738638/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-738638/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 738855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	SM 4500 CI- E	
500-241311-2	MW-12	Total/NA	Water	SM 4500 CI- E	
MB 500-738855/106	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-738855/107	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 740227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	SM 4500 F C	
500-241311-2	MW-12	Total/NA	Water	SM 4500 F C	
MB 500-740227/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-740227/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-241311-2 MS	MW-12	Total/NA	Water	SM 4500 F C	
500-241311-2 MSD	MW-12	Total/NA	Water	SM 4500 F C	

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-738371/1-A
Matrix: Water
Analysis Batch: 739840

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 738371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		10/23/23 08:58	10/31/23 14:30	1
Barium	<0.0025		0.0025		mg/L		10/23/23 08:58	10/31/23 14:30	1
Calcium	<0.20		0.20		mg/L		10/23/23 08:58	10/31/23 14:30	1
Cadmium	<0.00050		0.00050		mg/L		10/23/23 08:58	10/31/23 14:30	1
Cobalt	<0.0010		0.0010		mg/L		10/23/23 08:58	10/31/23 14:30	1
Chromium	<0.0050		0.0050		mg/L		10/23/23 08:58	10/31/23 14:30	1
Molybdenum	<0.0050		0.0050		mg/L		10/23/23 08:58	10/31/23 14:30	1
Lead	<0.00050		0.00050		mg/L		10/23/23 08:58	10/31/23 14:30	1
Antimony	<0.0030		0.0030		mg/L		10/23/23 08:58	10/31/23 14:30	1
Selenium	<0.0025		0.0025		mg/L		10/23/23 08:58	10/31/23 14:30	1
Thallium	<0.0020	^1+	0.0020		mg/L		10/23/23 08:58	10/31/23 14:30	1

Lab Sample ID: MB 500-738371/1-A
Matrix: Water
Analysis Batch: 740085

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 738371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010	^+	0.0010		mg/L		10/23/23 08:58	11/02/23 05:14	1

Lab Sample ID: MB 500-738371/1-A
Matrix: Water
Analysis Batch: 740421

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 738371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		10/23/23 08:58	11/02/23 22:08	1

Lab Sample ID: LCS 500-738371/2-A
Matrix: Water
Analysis Batch: 739840

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 738371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.107		mg/L		107	80 - 120
Barium	0.500	0.541		mg/L		108	80 - 120
Calcium	10.0	8.61		mg/L		86	80 - 120
Cadmium	0.0500	0.0525		mg/L		105	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Chromium	0.200	0.203		mg/L		102	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Antimony	0.500	0.526		mg/L		105	80 - 120
Selenium	0.100	0.114		mg/L		114	80 - 120
Thallium	0.100	0.111	^1+	mg/L		111	80 - 120

Lab Sample ID: LCS 500-738371/2-A
Matrix: Water
Analysis Batch: 740085

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 738371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.0500	0.0704	*+ ^+	mg/L		141	80 - 120

Eurofins Chicago

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

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

Lab Sample ID: LCS 500-738371/2-A
Matrix: Water
Analysis Batch: 740421

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 738371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: MB 500-741523/1-A
Matrix: Water
Analysis Batch: 742038

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 741523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/09/23 19:29	11/13/23 17:16	1

Lab Sample ID: LCS 500-741523/2-A
Matrix: Water
Analysis Batch: 742038

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 741523

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.100	0.0962		mg/L		96	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-738961/12-A
Matrix: Water
Analysis Batch: 739992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 738961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/26/23 11:10	11/01/23 10:55	1

Lab Sample ID: LCS 500-738961/13-A
Matrix: Water
Analysis Batch: 739992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 738961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00200		mg/L		100	80 - 120

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

Lab Sample ID: MB 500-738473/1
Matrix: Water
Analysis Batch: 738473

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

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

Lab Sample ID: LCS 500-738473/2
Matrix: Water
Analysis Batch: 738473

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	266		mg/L		106	80 - 120

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-738855/106
Matrix: Water
Analysis Batch: 738855

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			10/25/23 14:24	1

Lab Sample ID: LCS 500-738855/107
Matrix: Water
Analysis Batch: 738855

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.6		mg/L		103	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-740227/31
Matrix: Water
Analysis Batch: 740227

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/02/23 12:23	1

Lab Sample ID: LCS 500-740227/32
Matrix: Water
Analysis Batch: 740227

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.0		mg/L		100	90 - 119

Lab Sample ID: 500-241311-2 MS
Matrix: Water
Analysis Batch: 740227

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.47		5.00	5.38		mg/L		98	75 - 125

Lab Sample ID: 500-241311-2 MSD
Matrix: Water
Analysis Batch: 740227

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.47		5.00	5.36		mg/L		98	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-738638/16
Matrix: Water
Analysis Batch: 738638

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			10/24/23 10:54	1

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-738638/17
Matrix: Water
Analysis Batch: 738638

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	19.9		mg/L		99	88 - 123

1

2

3

4

5

6

7

8

9

10

11

12

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5244

Chain of Custody Record

NIKE 232

eurofins | Environment Testing

Client Information		Sampler: <u>IAN JOHN HENNINGSEN</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s)		COC No: <u>500-117106-45942 1</u>			
Client Contact: <u>Patrick Allenstein</u>		Phone: <u>630 290 6850</u>		E-Mail: <u>Diana.Mockler@et.eurofinsus.com</u>		State of Origin		Page: <u>Page 1 of 1</u>			
Company: <u>KPRG and Associates, Inc.</u>		PWSID:		Analysis Requested		Job #:		<u>500-241311</u>			
Address: <u>14885 West Lisbon Road, Suite 1A</u>		Due Date Requested:		9000, 9040 8010C, 8020A, 7470A 2540C, 4500, F, C, S, 60500, C, E, S, 14500, S, O, 4, E		Preservation Codes		A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J Oil Water V MCAA K EDTA W pH 4-5 L EDA Y Tizma Z other (specify)			
City: <u>Brookfield</u>		TAT Requested (days)				Dilution		Dilution		Dilution	
State, Zip: <u>WI, 53005</u>		Compliance Project: <u>Δ Yes Δ No</u>				PO #:		Dilution		Dilution	
Phone: <u>500-241311 COC</u>		WO #:				Project #:		Dilution		Dilution	
Email: <u>patricka@kprginc.com</u>		SSOW#:				SSOW#:		Dilution		Dilution	
Project Name: <u>Will County 2S/3S Event Desc: Quarterly GW Monitoring</u>		Project #:		Project #:		Dilution		Dilution			
Site: <u>Illinois</u>		SSOW#:		SSOW#:		Dilution		Dilution			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=other, AT=Trace, A=As)			
MW-05		---		---		---		Water			
MW-06		---		---		---		Water			
MW-09		---		---		---		Water			
MW-10		---		---		---		Water			
MW-11		10-19-23		11:16		G		Water			
MW-12		10-19-23		12:00		G		Water			
2S/3S Duplicate		---		---		---		Water			
3 Trip Blank		---		---		---		Water			
AM		10/20/23		---		---		Water			
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		Special Instructions/Note:			
Deliverable Requested I, II, III, IV, Other (specify)		Special Instructions/QC Requirements		Special Instructions/Note:		Special Instructions/Note:		Special Instructions/Note:			
Empty Kit Relinquished by:		Date		Time		Method of Shipment		Special Instructions/Note:			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>10-19-23 16:30</u>		Company: <u>KPRG</u>		Received by: <u>Ramon</u>		Date/Time: <u>10/19/23 16:30</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:			
						4.5 → 4.3, 3.8 → 3.6					

2 10/19/23
 3 Trip Blank

Added by BETA

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

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-241311-1

Login Number: 241311

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3,3.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
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	



Lab Chronicle

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241311-1

Client Sample ID: MW-11
Date Collected: 10/19/23 11:16
Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			738371	BDE	EET CHI	10/23/23 08:58 - 10/23/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	740085	BJH	EET CHI	11/02/23 05:21
Total Recoverable	Prep	3005A			738371	BDE	EET CHI	10/23/23 08:58 - 10/23/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	740421	BJH	EET CHI	11/02/23 22:16
Total Recoverable	Prep	3005A			741523	MC	EET CHI	11/09/23 19:29 - 11/10/23 00:29 ¹
Total Recoverable	Analysis	6020B		1	742038	BJH	EET CHI	11/13/23 17:24
Total Recoverable	Prep	3005A			738371	BDE	EET CHI	10/23/23 08:58 - 10/23/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	739840	BJH	EET CHI	10/31/23 16:23
Total/NA	Prep	7470A			738961	SS	EET CHI	10/26/23 11:10 - 10/26/23 13:10 ¹
Total/NA	Analysis	7470A		1	739992	MJG	EET CHI	11/01/23 11:51
Total/NA	Analysis	SM 2540C		1	738473	CLB	EET CHI	10/23/23 19:43
Total/NA	Analysis	SM 4500 CI- E		10	738855	TR	EET CHI	10/25/23 14:51
Total/NA	Analysis	SM 4500 F C		1	740227	SO	EET CHI	11/02/23 12:33
Total/NA	Analysis	SM 4500 SO4 E		10	738638	TR	EET CHI	10/24/23 11:01

Client Sample ID: MW-12
Date Collected: 10/19/23 12:00
Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			738371	BDE	EET CHI	10/23/23 08:58 - 10/23/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	740085	BJH	EET CHI	11/02/23 05:24
Total Recoverable	Prep	3005A			738371	BDE	EET CHI	10/23/23 08:58 - 10/23/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	740421	BJH	EET CHI	11/02/23 22:20
Total Recoverable	Prep	3005A			741523	MC	EET CHI	11/09/23 19:29 - 11/10/23 00:29 ¹
Total Recoverable	Analysis	6020B		1	742038	BJH	EET CHI	11/13/23 17:27
Total Recoverable	Prep	3005A			738371	BDE	EET CHI	10/23/23 08:58 - 10/23/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	739840	BJH	EET CHI	10/31/23 16:26
Total/NA	Prep	7470A			738961	SS	EET CHI	10/26/23 11:10 - 10/26/23 13:10 ¹
Total/NA	Analysis	7470A		1	739992	MJG	EET CHI	11/01/23 11:53
Total/NA	Analysis	SM 2540C		1	738473	CLB	EET CHI	10/23/23 19:46
Total/NA	Analysis	SM 4500 CI- E		20	738855	TR	EET CHI	10/25/23 14:52
Total/NA	Analysis	SM 4500 F C		1	740227	SO	EET CHI	11/02/23 12:37
Total/NA	Analysis	SM 4500 SO4 E		20	738638	TR	EET CHI	10/24/23 10:57

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

Laboratory References:

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

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 11/27/2023 3:03:51 PM

JOB DESCRIPTION

Will County CCR

JOB NUMBER

500-241311-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
11/27/2023 3:03:51 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	9
QC Association	10
QC Sample Results	11
Chain of Custody	12
Receipt Checklists	14
Chronicle	16
Tracer Carrier Summary	17



Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

Job ID: 500-241311-2

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-241311-2**

Receipt

The samples were received on 10/19/2023 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.3° C.

RAD

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

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

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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



Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-241311-1	MW-11	Water	10/19/23 11:16	10/19/23 16:30
500-241311-2	MW-12	Water	10/19/23 12:00	10/19/23 16:30

1

2

3

4

5

6

7

8

9

10

11

12

13

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241311-2

Client Sample ID: MW-11
Date Collected: 10/19/23 11:16
Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-1
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.382		0.151	0.155	1.00	0.162	pCi/L	10/26/23 10:30	11/22/23 19:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		30 - 110					10/26/23 10:30	11/22/23 19:24	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.953		0.537	0.544	1.00	0.761	pCi/L	10/26/23 10:34	11/16/23 12:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		30 - 110					10/26/23 10:34	11/16/23 12:22	1
Y Carrier	77.8		30 - 110					10/26/23 10:34	11/16/23 12:22	1

Method: TAL-STL 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	1.34		0.558	0.566	5.00	0.761	pCi/L		11/27/23 13:44	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241311-2

Client Sample ID: MW-12
Date Collected: 10/19/23 12:00
Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-2
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.281		0.112	0.115	1.00	0.126	pCi/L	10/26/23 10:30	11/22/23 19:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110					10/26/23 10:30	11/22/23 19:24	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.608		0.400	0.404	1.00	0.589	pCi/L	10/26/23 10:34	11/16/23 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110					10/26/23 10:34	11/16/23 12:23	1
Y Carrier	78.9		30 - 110					10/26/23 10:34	11/16/23 12:23	1

Method: TAL-STL 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	0.889		0.415	0.420	5.00	0.589	pCi/L		11/27/23 13:44	1

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

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.
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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

Rad

Prep Batch: 633683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	PrecSep-21	
500-241311-2	MW-12	Total/NA	Water	PrecSep-21	
MB 160-633683/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-633683/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 633684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241311-1	MW-11	Total/NA	Water	PrecSep_0	
500-241311-2	MW-12	Total/NA	Water	PrecSep_0	
MB 160-633684/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-633684/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	



QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-633683/1-A
Matrix: Water
Analysis Batch: 637801

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 633683

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04153	U	0.0593	0.0594	1.00	0.101	pCi/L	10/26/23 10:30	11/22/23 12:23	1
Carrier	MB MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	30 - 110					10/26/23 10:30	11/22/23 12:23	1
	94.5									

Lab Sample ID: LCS 160-633683/2-A
Matrix: Water
Analysis Batch: 637801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 633683

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.81		1.14	1.00	0.112	pCi/L	95	75 - 125
Carrier	LCS LCS		Limits						
Ba Carrier	%Yield	Qualifier	30 - 110						
	95.5								

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-633684/1-A
Matrix: Water
Analysis Batch: 637108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 633684

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.4403	U	0.345	0.347	1.00	0.529	pCi/L	10/26/23 10:34	11/16/23 12:10	1
Carrier	MB MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	30 - 110					10/26/23 10:34	11/16/23 12:10	1
Y Carrier	80.7		30 - 110					10/26/23 10:34	11/16/23 12:10	1

Lab Sample ID: LCS 160-633684/2-A
Matrix: Water
Analysis Batch: 637108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 633684

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	7.72	8.703		1.24	1.00	0.542	pCi/L	113	75 - 125
Carrier	LCS LCS		Limits						
Ba Carrier	%Yield	Qualifier	30 - 110						
Y Carrier	78.1		30 - 110						

Eurofins Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5244

Chain of Custody Record

NIKE 232

eurofins | Environment Testing

Client Information		Sampler: <u>IAN JOHN HENNINGSON</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s)		COC No: <u>500-117106-45942 1</u>			
Client Contact: <u>Patrick Allenstein</u>		Phone: <u>630 290 6850</u>		E-Mail: <u>Diana.Mockler@et.eurofinsus.com</u>		State of Origin		Page: <u>Page 1 of 1</u>			
Company: <u>KPRG and Associates, Inc.</u>		PWSID:		Analysis Requested		Job #:		<u>500-241311</u>			
Address: <u>14885 West Lisbon Road, Suite 1A</u>		Due Date Requested:		9000, 9040 8010C, 8020A, 7470A 2540C, 4500, F, C, S, 60500, C, E, S, 14500, S, O, A, E		Preservation Codes		A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J Oil Water V MCAA K EDTA W pH 4-5 L EDA Y Titima Z other (specify)			
City: <u>Brookfield</u>		TAT Requested (days)				Dilution		Dilution		Dilution	
State, Zip: <u>WI, 53005</u>		Compliance Project: <u>Δ Yes Δ No</u>				PO #:		Dilution		Dilution	
Phone: <u>500-241311 COC</u>		WO #:				Project #:		Dilution		Dilution	
Email: <u>patricka@kprginc.com</u>		SSOW#:		Project #:		Dilution		Dilution			
Project Name: <u>Will County 2S/3S Event Desc: Quarterly GW Monitoring</u>		SSOW#:		Project #:		Dilution		Dilution			
Site: <u>Illinois</u>		SSOW#:		Project #:		Dilution		Dilution			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=other, AT=Trace, A=As)			
MW-05		---		---		---		Water			
MW-06		---		---		---		Water			
MW-09		---		---		---		Water			
MW-10		---		---		---		Water			
MW-11		10-19-23		11:16		G		Water			
MW-12		10-19-23		12:00		G		Water			
2S/3S Duplicate		---		---		---		Water			
3 Trip Blank		---		---		---		Water			
10/20/23		---		---		---		Water			
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		Special Instructions/Note:			
Deliverable Requested I, II, III, IV, Other (specify)		Special Instructions/QC Requirements		Added by <u>BETA</u>							
Empty Kit Relinquished by:		Date		Time		Method of Shipment:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>10-19-23 16:30</u>		Company: <u>KPRG</u>		Received by: <u>Ramon</u>		Date/Time: <u>10/19/23 16:30</u> Company: <u>EETA</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: Company:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: Company:			
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>4.5 → 4.3, 3.8 → 3.6</u>							

2 10/20/23
 3 Trip Blank

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

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-241311-2

Login Number: 241311

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3,3.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
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: Midwest Generation EME LLC

Job Number: 500-241311-2

Login Number: 241311

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/23/23 02:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <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	



Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

Client Sample ID: MW-11

Date Collected: 10/19/23 11:16

Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			633683	KAC	EET SL	10/26/23 10:30
Total/NA	Analysis	903.0		1	637959	SCB	EET SL	11/22/23 19:24
Total/NA	Prep	PrecSep_0			633684	KAC	EET SL	10/26/23 10:34
Total/NA	Analysis	904.0		1	637230	FLC	EET SL	11/16/23 12:22
Total/NA	Analysis	Ra226_Ra228		1	638008	EMH	EET SL	11/27/23 13:44

Client Sample ID: MW-12

Date Collected: 10/19/23 12:00

Date Received: 10/19/23 16:30

Lab Sample ID: 500-241311-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			633683	KAC	EET SL	10/26/23 10:30
Total/NA	Analysis	903.0		1	637959	SCB	EET SL	11/22/23 19:24
Total/NA	Prep	PrecSep_0			633684	KAC	EET SL	10/26/23 10:34
Total/NA	Analysis	904.0		1	637230	FLC	EET SL	11/16/23 12:23
Total/NA	Analysis	Ra226_Ra228		1	638008	EMH	EET SL	11/27/23 13:44

Laboratory References:

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

Tracer/Carrier Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241311-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
500-241311-1	MW-11	92.2
500-241311-2	MW-12	89.9
LCS 160-633683/2-A	Lab Control Sample	95.5
MB 160-633683/1-A	Method Blank	94.5

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-241311-1	MW-11	92.2	77.8
500-241311-2	MW-12	89.9	78.9
LCS 160-633684/2-A	Lab Control Sample	95.5	78.1
MB 160-633684/1-A	Method Blank	94.5	80.7

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 11/27/2023 3:27:04 PM

JOB DESCRIPTION

Will County CCR

JOB NUMBER

500-241542-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
11/27/2023 3:27:04 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	12
QC Association	13
QC Sample Results	16
Chain of Custody	21
Receipt Checklists	22
Chronicle	23

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Job ID: 500-241542-1

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-241542-1**

Receipt

The samples were received on 10/25/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.8° C and 4.3° C.

Metals

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

General Chemistry

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

1

2

3

4

5

6

7

8

9

10

11

12

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 Cl- E	Chloride, Total	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
SM 4500 SO4 E	Sulfate, Total	SM	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

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:

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-241542-1	MW-05	Water	10/24/23 09:19	10/25/23 09:30
500-241542-2	MW-06	Water	10/24/23 10:29	10/25/23 09:30
500-241542-3	MW-09	Water	10/24/23 13:00	10/25/23 09:30
500-241542-4	MW-10	Water	10/24/23 11:38	10/25/23 09:30
500-241542-5	2S/3S Duplicate	Water	10/24/23 00:00	10/25/23 09:30

1

2

3

4

5

6

7

8

9

10

11

12

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: MW-05

Lab Sample ID: 500-241542-1

Date Collected: 10/24/23 09:19

Matrix: Water

Date Received: 10/25/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0014		0.0010		mg/L		11/03/23 09:16	11/10/23 03:37	1
Boron	6.8		0.50		mg/L		11/21/23 19:34	11/24/23 14:57	10
Barium	0.074		0.0025		mg/L		11/03/23 09:16	11/10/23 03:37	1
Beryllium	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:37	1
Calcium	140		0.20		mg/L		11/03/23 09:16	11/10/23 03:37	1
Cadmium	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:37	1
Cobalt	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:37	1
Chromium	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 03:37	1
Molybdenum	0.071		0.0050		mg/L		11/03/23 09:16	11/10/23 03:37	1
Lead	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:37	1
Antimony	<0.0030		0.0030		mg/L		11/03/23 09:16	11/10/23 03:37	1
Selenium	0.077		0.0025		mg/L		11/03/23 09:16	11/10/23 03:37	1
Thallium	<0.0020		0.0020		mg/L		11/03/23 09:16	11/10/23 03:37	1
Lithium	0.023		0.010		mg/L		11/14/23 09:28	11/16/23 02:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/13/23 15:10	11/14/23 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	850		10		mg/L			10/26/23 02:32	1
Chloride (SM 4500 Cl- E)	8.6		2.0		mg/L			10/30/23 14:10	1
Fluoride (SM 4500 F C)	0.52		0.10		mg/L			11/13/23 14:28	1
Sulfate (SM 4500 SO4 E)	210		100		mg/L			11/13/23 11:04	20

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: MW-06
 Date Collected: 10/24/23 10:29
 Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-2
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0010		mg/L		11/03/23 09:16	11/10/23 03:42	1
Boron	2.5		0.50		mg/L		11/21/23 19:34	11/24/23 15:01	10
Barium	0.079		0.0025		mg/L		11/03/23 09:16	11/10/23 03:42	1
Beryllium	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:42	1
Calcium	100		0.20		mg/L		11/03/23 09:16	11/10/23 03:42	1
Cadmium	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:42	1
Cobalt	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:42	1
Chromium	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 03:42	1
Molybdenum	0.021		0.0050		mg/L		11/03/23 09:16	11/10/23 03:42	1
Lead	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:42	1
Antimony	<0.0030		0.0030		mg/L		11/03/23 09:16	11/10/23 03:42	1
Selenium	<0.0025		0.0025		mg/L		11/03/23 09:16	11/10/23 03:42	1
Thallium	<0.0020		0.0020		mg/L		11/03/23 09:16	11/10/23 03:42	1
Lithium	0.020		0.010		mg/L		11/14/23 09:28	11/16/23 03:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/13/23 15:10	11/14/23 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	580		10		mg/L			10/26/23 02:34	1
Chloride (SM 4500 Cl- E)	13		2.0		mg/L			10/30/23 11:31	1
Fluoride (SM 4500 F C)	0.40		0.10		mg/L			11/13/23 14:32	1
Sulfate (SM 4500 SO4 E)	140		100		mg/L			11/13/23 11:04	20

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: MW-09

Lab Sample ID: 500-241542-3

Date Collected: 10/24/23 13:00

Matrix: Water

Date Received: 10/25/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0099		0.0010		mg/L		11/03/23 09:16	11/10/23 03:46	1
Boron	2.0		0.50		mg/L		11/21/23 19:34	11/24/23 15:05	10
Barium	0.035		0.0025		mg/L		11/03/23 09:16	11/10/23 03:46	1
Beryllium	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:46	1
Calcium	41		0.20		mg/L		11/03/23 09:16	11/10/23 03:46	1
Cadmium	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:46	1
Cobalt	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:46	1
Chromium	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 03:46	1
Molybdenum	0.070		0.0050		mg/L		11/03/23 09:16	11/10/23 03:46	1
Lead	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:46	1
Antimony	<0.0030		0.0030		mg/L		11/03/23 09:16	11/10/23 03:46	1
Selenium	<0.0025		0.0025		mg/L		11/03/23 09:16	11/10/23 03:46	1
Thallium	<0.0020		0.0020		mg/L		11/03/23 09:16	11/10/23 03:46	1
Lithium	<0.010		0.010		mg/L		11/14/23 09:28	11/16/23 03:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/13/23 15:10	11/14/23 11:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	770		10		mg/L			10/26/23 02:37	1
Chloride (SM 4500 Cl- E)	200		40		mg/L			10/30/23 12:36	20
Fluoride (SM 4500 F C)	0.52		0.10		mg/L			11/13/23 14:47	1
Sulfate (SM 4500 SO4 E)	200		100		mg/L			11/13/23 11:03	20

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: MW-10

Lab Sample ID: 500-241542-4

Date Collected: 10/24/23 11:38

Matrix: Water

Date Received: 10/25/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0087		0.0010		mg/L		11/03/23 09:16	11/10/23 03:59	1
Boron	2.9		0.50		mg/L		11/21/23 19:34	11/24/23 15:08	10
Barium	0.083		0.0025		mg/L		11/03/23 09:16	11/10/23 03:59	1
Beryllium	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:59	1
Calcium	99		0.20		mg/L		11/03/23 09:16	11/10/23 03:59	1
Cadmium	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:59	1
Cobalt	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 03:59	1
Chromium	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 03:59	1
Molybdenum	0.12		0.0050		mg/L		11/03/23 09:16	11/10/23 03:59	1
Lead	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 03:59	1
Antimony	<0.0030		0.0030		mg/L		11/03/23 09:16	11/10/23 03:59	1
Selenium	<0.0025		0.0025		mg/L		11/03/23 09:16	11/10/23 03:59	1
Thallium	<0.0020		0.0020		mg/L		11/03/23 09:16	11/10/23 03:59	1
Lithium	0.015		0.010		mg/L		11/14/23 09:28	11/16/23 03:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/13/23 15:10	11/14/23 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	920		10		mg/L			10/26/23 02:39	1
Chloride (SM 4500 Cl- E)	160		40		mg/L			10/30/23 12:36	20
Fluoride (SM 4500 F C)	0.89		0.10		mg/L			11/13/23 15:16	1
Sulfate (SM 4500 SO4 E)	230		100		mg/L			11/13/23 11:04	20

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-241542-5

Date Collected: 10/24/23 00:00

Matrix: Water

Date Received: 10/25/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0014		0.0010		mg/L		11/03/23 09:16	11/10/23 04:03	1
Boron	7.0		0.50		mg/L		11/21/23 19:34	11/24/23 15:12	10
Barium	0.075		0.0025		mg/L		11/03/23 09:16	11/10/23 04:03	1
Beryllium	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 04:03	1
Calcium	140		0.20		mg/L		11/03/23 09:16	11/10/23 04:03	1
Cadmium	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 04:03	1
Cobalt	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 04:03	1
Chromium	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 04:03	1
Molybdenum	0.070		0.0050		mg/L		11/03/23 09:16	11/10/23 04:03	1
Lead	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 04:03	1
Antimony	<0.0030		0.0030		mg/L		11/03/23 09:16	11/10/23 04:03	1
Selenium	0.075		0.0025		mg/L		11/03/23 09:16	11/10/23 04:03	1
Thallium	<0.0020		0.0020		mg/L		11/03/23 09:16	11/10/23 04:03	1
Lithium	0.025		0.010		mg/L		11/14/23 09:28	11/16/23 03:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/13/23 15:10	11/14/23 11:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	900		10		mg/L			10/26/23 02:42	1
Chloride (SM 4500 Cl- E)	8.3		2.0		mg/L			10/30/23 14:11	1
Fluoride (SM 4500 F C)	0.49		0.10		mg/L			11/13/23 14:51	1
Sulfate (SM 4500 SO4 E)	210		100		mg/L			11/13/23 11:05	20

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Metals

Prep Batch: 740389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total Recoverable	Water	3005A	
500-241542-2	MW-06	Total Recoverable	Water	3005A	
500-241542-3	MW-09	Total Recoverable	Water	3005A	
500-241542-4	MW-10	Total Recoverable	Water	3005A	
500-241542-5	2S/3S Duplicate	Total Recoverable	Water	3005A	
MB 500-740389/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-740389/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 741658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total Recoverable	Water	6020B	740389
500-241542-2	MW-06	Total Recoverable	Water	6020B	740389
500-241542-3	MW-09	Total Recoverable	Water	6020B	740389
500-241542-4	MW-10	Total Recoverable	Water	6020B	740389
500-241542-5	2S/3S Duplicate	Total Recoverable	Water	6020B	740389
MB 500-740389/1-A	Method Blank	Total Recoverable	Water	6020B	740389
LCS 500-740389/2-A	Lab Control Sample	Total Recoverable	Water	6020B	740389

Prep Batch: 741936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	7470A	
500-241542-2	MW-06	Total/NA	Water	7470A	
500-241542-3	MW-09	Total/NA	Water	7470A	
500-241542-4	MW-10	Total/NA	Water	7470A	
500-241542-5	2S/3S Duplicate	Total/NA	Water	7470A	
MB 500-741936/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-741936/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-241542-2 MS	MW-06	Total/NA	Water	7470A	
500-241542-2 MSD	MW-06	Total/NA	Water	7470A	
500-241542-2 DU	MW-06	Total/NA	Water	7470A	

Prep Batch: 742074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total Recoverable	Water	3005A	
500-241542-2	MW-06	Total Recoverable	Water	3005A	
500-241542-3	MW-09	Total Recoverable	Water	3005A	
500-241542-4	MW-10	Total Recoverable	Water	3005A	
500-241542-5	2S/3S Duplicate	Total Recoverable	Water	3005A	
MB 500-742074/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-742074/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 742147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	7470A	741936
500-241542-2	MW-06	Total/NA	Water	7470A	741936
500-241542-3	MW-09	Total/NA	Water	7470A	741936
500-241542-4	MW-10	Total/NA	Water	7470A	741936
500-241542-5	2S/3S Duplicate	Total/NA	Water	7470A	741936
MB 500-741936/12-A	Method Blank	Total/NA	Water	7470A	741936
LCS 500-741936/13-A	Lab Control Sample	Total/NA	Water	7470A	741936
500-241542-2 MS	MW-06	Total/NA	Water	7470A	741936

Eurofins Chicago

QC Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Metals (Continued)

Analysis Batch: 742147 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-2 MSD	MW-06	Total/NA	Water	7470A	741936
500-241542-2 DU	MW-06	Total/NA	Water	7470A	741936

Analysis Batch: 742504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total Recoverable	Water	6020B	742074
500-241542-2	MW-06	Total Recoverable	Water	6020B	742074
500-241542-3	MW-09	Total Recoverable	Water	6020B	742074
500-241542-4	MW-10	Total Recoverable	Water	6020B	742074
500-241542-5	2S/3S Duplicate	Total Recoverable	Water	6020B	742074
MB 500-742074/1-A	Method Blank	Total Recoverable	Water	6020B	742074
LCS 500-742074/2-A	Lab Control Sample	Total Recoverable	Water	6020B	742074

Prep Batch: 743405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total Recoverable	Water	3005A	
500-241542-2	MW-06	Total Recoverable	Water	3005A	
500-241542-3	MW-09	Total Recoverable	Water	3005A	
500-241542-4	MW-10	Total Recoverable	Water	3005A	
500-241542-5	2S/3S Duplicate	Total Recoverable	Water	3005A	
MB 500-743405/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-743405/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 743808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total Recoverable	Water	6020B	743405
500-241542-2	MW-06	Total Recoverable	Water	6020B	743405
500-241542-3	MW-09	Total Recoverable	Water	6020B	743405
500-241542-4	MW-10	Total Recoverable	Water	6020B	743405
500-241542-5	2S/3S Duplicate	Total Recoverable	Water	6020B	743405
MB 500-743405/1-A	Method Blank	Total Recoverable	Water	6020B	743405
LCS 500-743405/2-A	Lab Control Sample	Total Recoverable	Water	6020B	743405

General Chemistry

Analysis Batch: 738890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	SM 2540C	
500-241542-2	MW-06	Total/NA	Water	SM 2540C	
500-241542-3	MW-09	Total/NA	Water	SM 2540C	
500-241542-4	MW-10	Total/NA	Water	SM 2540C	
500-241542-5	2S/3S Duplicate	Total/NA	Water	SM 2540C	
MB 500-738890/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-738890/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 739652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	SM 4500 CI- E	
500-241542-2	MW-06	Total/NA	Water	SM 4500 CI- E	
500-241542-3	MW-09	Total/NA	Water	SM 4500 CI- E	
500-241542-4	MW-10	Total/NA	Water	SM 4500 CI- E	

Eurofins Chicago

QC Association Summary

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

General Chemistry (Continued)

Analysis Batch: 739652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-5	2S/3S Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-739652/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-739652/61	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-739652/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-739652/62	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-241542-5 MS	2S/3S Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-241542-5 MSD	2S/3S Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 741942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	SM 4500 F C	
500-241542-2	MW-06	Total/NA	Water	SM 4500 F C	
500-241542-3	MW-09	Total/NA	Water	SM 4500 F C	
500-241542-4	MW-10	Total/NA	Water	SM 4500 F C	
500-241542-5	2S/3S Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-741942/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-741942/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-741942/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-741942/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-241542-5 MS	2S/3S Duplicate	Total/NA	Water	SM 4500 F C	
500-241542-5 MSD	2S/3S Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 741949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-241542-2	MW-06	Total/NA	Water	SM 4500 SO4 E	
500-241542-3	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-241542-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-241542-5	2S/3S Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-741949/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-741949/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-740389/1-A
Matrix: Water
Analysis Batch: 741658

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 740389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 02:16	1
Barium	<0.0025		0.0025		mg/L		11/03/23 09:16	11/10/23 02:16	1
Beryllium	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 02:16	1
Calcium	<0.20		0.20		mg/L		11/03/23 09:16	11/10/23 02:16	1
Cadmium	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 02:16	1
Cobalt	<0.0010		0.0010		mg/L		11/03/23 09:16	11/10/23 02:16	1
Chromium	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 02:16	1
Molybdenum	<0.0050		0.0050		mg/L		11/03/23 09:16	11/10/23 02:16	1
Lead	<0.00050		0.00050		mg/L		11/03/23 09:16	11/10/23 02:16	1
Antimony	<0.0030		0.0030		mg/L		11/03/23 09:16	11/10/23 02:16	1
Selenium	<0.0025		0.0025		mg/L		11/03/23 09:16	11/10/23 02:16	1
Thallium	<0.0020		0.0020		mg/L		11/03/23 09:16	11/10/23 02:16	1

Lab Sample ID: LCS 500-740389/2-A
Matrix: Water
Analysis Batch: 741658

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 740389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0937		mg/L		94	80 - 120
Barium	0.500	0.499		mg/L		100	80 - 120
Beryllium	0.0500	0.0449		mg/L		90	80 - 120
Calcium	10.0	9.84		mg/L		98	80 - 120
Cadmium	0.0500	0.0490		mg/L		98	80 - 120
Cobalt	0.500	0.475		mg/L		95	80 - 120
Chromium	0.200	0.192		mg/L		96	80 - 120
Molybdenum	1.00	0.926		mg/L		93	80 - 120
Lead	0.100	0.0981		mg/L		98	80 - 120
Antimony	0.500	0.489		mg/L		98	80 - 120
Selenium	0.100	0.0975		mg/L		97	80 - 120
Thallium	0.100	0.0995		mg/L		99	80 - 120

Lab Sample ID: MB 500-742074/1-A
Matrix: Water
Analysis Batch: 742504

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 742074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/14/23 09:28	11/16/23 01:25	1

Lab Sample ID: LCS 500-742074/2-A
Matrix: Water
Analysis Batch: 742504

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 742074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.100	0.105		mg/L		105	80 - 120

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

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

Lab Sample ID: MB 500-743405/1-A
Matrix: Water
Analysis Batch: 743808

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 743405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		11/21/23 19:34	11/24/23 13:59	1

Lab Sample ID: LCS 500-743405/2-A
Matrix: Water
Analysis Batch: 743808

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 743405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.892		mg/L		89	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-741936/12-A
Matrix: Water
Analysis Batch: 742147

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 741936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/13/23 15:10	11/14/23 10:38	1

Lab Sample ID: LCS 500-741936/13-A
Matrix: Water
Analysis Batch: 742147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 741936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00193		mg/L		96	80 - 120

Lab Sample ID: 500-241542-2 MS
Matrix: Water
Analysis Batch: 742147

Client Sample ID: MW-06
Prep Type: Total/NA
Prep Batch: 741936

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00100	0.000977		mg/L		98	75 - 125

Lab Sample ID: 500-241542-2 MSD
Matrix: Water
Analysis Batch: 742147

Client Sample ID: MW-06
Prep Type: Total/NA
Prep Batch: 741936

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000992		mg/L		99	75 - 125	2	20

Lab Sample ID: 500-241542-2 DU
Matrix: Water
Analysis Batch: 742147

Client Sample ID: MW-06
Prep Type: Total/NA
Prep Batch: 741936

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

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

Lab Sample ID: MB 500-738890/1
Matrix: Water
Analysis Batch: 738890

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			10/26/23 01:43	1

Lab Sample ID: LCS 500-738890/2
Matrix: Water
Analysis Batch: 738890

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	238		mg/L		95	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-739652/16
Matrix: Water
Analysis Batch: 739652

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			10/30/23 11:30	1

Lab Sample ID: MB 500-739652/61
Matrix: Water
Analysis Batch: 739652

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			10/30/23 14:09	1

Lab Sample ID: LCS 500-739652/17
Matrix: Water
Analysis Batch: 739652

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.2		mg/L		101	85 - 115

Lab Sample ID: LCS 500-739652/62
Matrix: Water
Analysis Batch: 739652

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	22.1		mg/L		111	85 - 115

Lab Sample ID: 500-241542-5 MS
Matrix: Water
Analysis Batch: 739652

Client Sample ID: 2S/3S Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8.3		20.0	26.2		mg/L		89	75 - 125

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 500-241542-5 MSD
 Matrix: Water
 Analysis Batch: 739652

Client Sample ID: 2S/3S Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.3		20.0	26.3		mg/L		90	75 - 125	0	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-741942/3
 Matrix: Water
 Analysis Batch: 741942

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/13/23 12:23	1

Lab Sample ID: MB 500-741942/31
 Matrix: Water
 Analysis Batch: 741942

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/13/23 14:37	1

Lab Sample ID: LCS 500-741942/32
 Matrix: Water
 Analysis Batch: 741942

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.60		mg/L		96	90 - 119

Lab Sample ID: LCS 500-741942/4
 Matrix: Water
 Analysis Batch: 741942

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.80		mg/L		98	90 - 119

Lab Sample ID: 500-241542-5 MS
 Matrix: Water
 Analysis Batch: 741942

Client Sample ID: 2S/3S Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.49		5.00	5.14		mg/L		93	75 - 125

Lab Sample ID: 500-241542-5 MSD
 Matrix: Water
 Analysis Batch: 741942

Client Sample ID: 2S/3S Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.49		5.00	5.22		mg/L		95	75 - 125	1	20

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR

Job ID: 500-241542-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-741949/16
Matrix: Water
Analysis Batch: 741949

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			11/13/23 10:20	1

Lab Sample ID: LCS 500-741949/17
Matrix: Water
Analysis Batch: 741949

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	19.7		mg/L		98	88 - 123



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-241542-1

Login Number: 241542

List Source: Eurofins Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8,4.3
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: MW-05
Date Collected: 10/24/23 09:19
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			740389	BDE	EET CHI	11/03/23 09:16 - 11/03/23 09:46 ¹
Total Recoverable	Analysis	6020B		1	741658	BJH	EET CHI	11/10/23 03:37
Total Recoverable	Prep	3005A			742074	BDE	EET CHI	11/14/23 09:28 - 11/14/23 09:58 ¹
Total Recoverable	Analysis	6020B		1	742504	BJH	EET CHI	11/16/23 02:58
Total Recoverable	Prep	3005A			743405	MC	EET CHI	11/21/23 19:34 - 11/22/23 00:34 ¹
Total Recoverable	Analysis	6020B		10	743808	BJH	EET CHI	11/24/23 14:57
Total/NA	Prep	7470A			741936	MJG	EET CHI	11/13/23 15:10 - 11/13/23 17:10 ¹
Total/NA	Analysis	7470A		1	742147	MJG	EET CHI	11/14/23 10:55
Total/NA	Analysis	SM 2540C		1	738890	CLB	EET CHI	10/26/23 02:32
Total/NA	Analysis	SM 4500 CI- E		1	739652	TR	EET CHI	10/30/23 14:10
Total/NA	Analysis	SM 4500 F C		1	741942	SO	EET CHI	11/13/23 14:28
Total/NA	Analysis	SM 4500 SO4 E		20	741949	TR	EET CHI	11/13/23 11:04

Client Sample ID: MW-06
Date Collected: 10/24/23 10:29
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			740389	BDE	EET CHI	11/03/23 09:16 - 11/03/23 09:46 ¹
Total Recoverable	Analysis	6020B		1	741658	BJH	EET CHI	11/10/23 03:42
Total Recoverable	Prep	3005A			742074	BDE	EET CHI	11/14/23 09:28 - 11/14/23 09:58 ¹
Total Recoverable	Analysis	6020B		1	742504	BJH	EET CHI	11/16/23 03:01
Total Recoverable	Prep	3005A			743405	MC	EET CHI	11/21/23 19:34 - 11/22/23 00:34 ¹
Total Recoverable	Analysis	6020B		10	743808	BJH	EET CHI	11/24/23 15:01
Total/NA	Prep	7470A			741936	MJG	EET CHI	11/13/23 15:10 - 11/13/23 17:10 ¹
Total/NA	Analysis	7470A		1	742147	MJG	EET CHI	11/14/23 11:15
Total/NA	Analysis	SM 2540C		1	738890	CLB	EET CHI	10/26/23 02:34
Total/NA	Analysis	SM 4500 CI- E		1	739652	TR	EET CHI	10/30/23 11:31
Total/NA	Analysis	SM 4500 F C		1	741942	SO	EET CHI	11/13/23 14:32
Total/NA	Analysis	SM 4500 SO4 E		20	741949	TR	EET CHI	11/13/23 11:04

Client Sample ID: MW-09
Date Collected: 10/24/23 13:00
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			740389	BDE	EET CHI	11/03/23 09:16 - 11/03/23 09:46 ¹
Total Recoverable	Analysis	6020B		1	741658	BJH	EET CHI	11/10/23 03:46
Total Recoverable	Prep	3005A			742074	BDE	EET CHI	11/14/23 09:28 - 11/14/23 09:58 ¹
Total Recoverable	Analysis	6020B		1	742504	BJH	EET CHI	11/16/23 03:05
Total Recoverable	Prep	3005A			743405	MC	EET CHI	11/21/23 19:34 - 11/22/23 00:34 ¹
Total Recoverable	Analysis	6020B		10	743808	BJH	EET CHI	11/24/23 15:05
Total/NA	Prep	7470A			741936	MJG	EET CHI	11/13/23 15:10 - 11/13/23 17:10 ¹
Total/NA	Analysis	7470A		1	742147	MJG	EET CHI	11/14/23 11:24

Eurofins Chicago

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR

Job ID: 500-241542-1

Client Sample ID: MW-09
Date Collected: 10/24/23 13:00
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	738890	CLB	EET CHI	10/26/23 02:37
Total/NA	Analysis	SM 4500 CI- E		20	739652	TR	EET CHI	10/30/23 12:36
Total/NA	Analysis	SM 4500 F C		1	741942	SO	EET CHI	11/13/23 14:47
Total/NA	Analysis	SM 4500 SO4 E		20	741949	TR	EET CHI	11/13/23 11:03

Client Sample ID: MW-10
Date Collected: 10/24/23 11:38
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			740389	BDE	EET CHI	11/03/23 09:16 - 11/03/23 09:46 ¹
Total Recoverable	Analysis	6020B		1	741658	BJH	EET CHI	11/10/23 03:59
Total Recoverable	Prep	3005A			742074	BDE	EET CHI	11/14/23 09:28 - 11/14/23 09:58 ¹
Total Recoverable	Analysis	6020B		1	742504	BJH	EET CHI	11/16/23 03:08
Total Recoverable	Prep	3005A			743405	MC	EET CHI	11/21/23 19:34 - 11/22/23 00:34 ¹
Total Recoverable	Analysis	6020B		10	743808	BJH	EET CHI	11/24/23 15:08
Total/NA	Prep	7470A			741936	MJG	EET CHI	11/13/23 15:10 - 11/13/23 17:10 ¹
Total/NA	Analysis	7470A		1	742147	MJG	EET CHI	11/14/23 11:30
Total/NA	Analysis	SM 2540C		1	738890	CLB	EET CHI	10/26/23 02:39
Total/NA	Analysis	SM 4500 CI- E		20	739652	TR	EET CHI	10/30/23 12:36
Total/NA	Analysis	SM 4500 F C		1	741942	SO	EET CHI	11/13/23 15:16
Total/NA	Analysis	SM 4500 SO4 E		20	741949	TR	EET CHI	11/13/23 11:04

Client Sample ID: 2S/3S Duplicate
Date Collected: 10/24/23 00:00
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			740389	BDE	EET CHI	11/03/23 09:16 - 11/03/23 09:46 ¹
Total Recoverable	Analysis	6020B		1	741658	BJH	EET CHI	11/10/23 04:03
Total Recoverable	Prep	3005A			742074	BDE	EET CHI	11/14/23 09:28 - 11/14/23 09:58 ¹
Total Recoverable	Analysis	6020B		1	742504	BJH	EET CHI	11/16/23 03:12
Total Recoverable	Prep	3005A			743405	MC	EET CHI	11/21/23 19:34 - 11/22/23 00:34 ¹
Total Recoverable	Analysis	6020B		10	743808	BJH	EET CHI	11/24/23 15:12
Total/NA	Prep	7470A			741936	MJG	EET CHI	11/13/23 15:10 - 11/13/23 17:10 ¹
Total/NA	Analysis	7470A		1	742147	MJG	EET CHI	11/14/23 11:32
Total/NA	Analysis	SM 2540C		1	738890	CLB	EET CHI	10/26/23 02:42
Total/NA	Analysis	SM 4500 CI- E		1	739652	TR	EET CHI	10/30/23 14:11
Total/NA	Analysis	SM 4500 F C		1	741942	SO	EET CHI	11/13/23 14:51
Total/NA	Analysis	SM 4500 SO4 E		20	741949	TR	EET CHI	11/13/23 11:05

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

Laboratory References:

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

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 11/27/2023 9:09:35 AM

JOB DESCRIPTION

Will County CCR (RAD)

JOB NUMBER

500-241542-2

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
11/27/2023 9:09:35 AM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	12
QC Association	13
QC Sample Results	14
Chain of Custody	16
Receipt Checklists	18
Chronicle	20
Tracer Carrier Summary	22



Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Job ID: 500-241542-2

Laboratory: Eurofins Chicago

Narrative

**Job Narrative
500-241542-2**

Receipt

The samples were received on 10/25/23 09:30. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.8° C and 4.3° C.

RAD

Method 904.0: Radium-228 batch 633892

The detection goal was not met for the sample duplicate. However the purpose of the DUP is to demonstrate batch precision. The precision was within control limits demonstrating no adverse effect from the discrepancy. (500-241542-E-1-B DU)

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



Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-241542-1	MW-05	Water	10/24/23 09:19	10/25/23 09:30
500-241542-2	MW-06	Water	10/24/23 10:29	10/25/23 09:30
500-241542-3	MW-09	Water	10/24/23 13:00	10/25/23 09:30
500-241542-4	MW-10	Water	10/24/23 11:38	10/25/23 09:30
500-241542-5	2S/3S Duplicate	Water	10/24/23 00:00	10/25/23 09:30

1

2

3

4

5

6

7

8

9

10

11

12

13

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: MW-05
Date Collected: 10/24/23 09:19
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-1
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.0898	0.0902	1.00	0.139	pCi/L	10/27/23 10:35	11/20/23 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		30 - 110					10/27/23 10:35	11/20/23 14:39	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0782	U	0.518	0.518	1.00	0.967	pCi/L	10/27/23 10:40	11/13/23 18:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		30 - 110					10/27/23 10:40	11/13/23 18:32	1
Y Carrier	84.5		30 - 110					10/27/23 10:40	11/13/23 18:32	1

Method: TAL-STL 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	0.178	U	0.526	0.526	5.00	0.967	pCi/L		11/21/23 13:27	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: MW-06

Lab Sample ID: 500-241542-2

Date Collected: 10/24/23 10:29

Matrix: Water

Date Received: 10/25/23 09:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192		0.105	0.106	1.00	0.139	pCi/L	10/27/23 10:35	11/20/23 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.9		30 - 110					10/27/23 10:35	11/20/23 14:39	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.250	U	0.293	0.294	1.00	0.482	pCi/L	11/14/23 11:04	11/22/23 16:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.5		30 - 110					11/14/23 11:04	11/22/23 16:20	1
Y Carrier	88.2		30 - 110					11/14/23 11:04	11/22/23 16:20	1

Method: TAL-STL 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	0.442	U	0.311	0.313	5.00	0.482	pCi/L		11/22/23 21:51	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: MW-09

Lab Sample ID: 500-241542-3

Date Collected: 10/24/23 13:00

Matrix: Water

Date Received: 10/25/23 09:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0865	U	0.0731	0.0735	1.00	0.108	pCi/L	10/27/23 10:35	11/20/23 19:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.2		30 - 110					10/27/23 10:35	11/20/23 19:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0687	U	0.304	0.304	1.00	0.549	pCi/L	11/14/23 11:04	11/22/23 16:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		30 - 110					11/14/23 11:04	11/22/23 16:17	1
Y Carrier	81.9		30 - 110					11/14/23 11:04	11/22/23 16:17	1

Method: TAL-STL 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	0.155	U	0.313	0.313	5.00	0.549	pCi/L		11/22/23 21:51	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: MW-10
Date Collected: 10/24/23 11:38
Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-4
Matrix: Water

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.269		0.104	0.106	1.00	0.103	pCi/L	10/27/23 10:35	11/20/23 19:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		30 - 110					10/27/23 10:35	11/20/23 19:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.495	0.504	1.00	0.670	pCi/L	11/14/23 11:04	11/22/23 16:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		30 - 110					11/14/23 11:04	11/22/23 16:17	1
Y Carrier	84.9		30 - 110					11/14/23 11:04	11/22/23 16:17	1

Method: TAL-STL 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	1.30		0.506	0.515	5.00	0.670	pCi/L		11/22/23 21:51	1

Client Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-241542-5

Date Collected: 10/24/23 00:00

Matrix: Water

Date Received: 10/25/23 09:30

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.253		0.101	0.104	1.00	0.105	pCi/L	10/27/23 10:35	11/20/23 19:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		30 - 110					10/27/23 10:35	11/20/23 19:09	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.157	U	0.301	0.301	1.00	0.520	pCi/L	11/14/23 11:04	11/22/23 16:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110					11/14/23 11:04	11/22/23 16:17	1
Y Carrier	83.4		30 - 110					11/14/23 11:04	11/22/23 16:17	1

Method: TAL-STL 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	0.410	U	0.317	0.318	5.00	0.520	pCi/L		11/22/23 21:51	1

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Rad

Prep Batch: 633889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	PrecSep-21	
500-241542-2	MW-06	Total/NA	Water	PrecSep-21	
500-241542-3	MW-09	Total/NA	Water	PrecSep-21	
500-241542-4	MW-10	Total/NA	Water	PrecSep-21	
500-241542-5	2S/3S Duplicate	Total/NA	Water	PrecSep-21	
MB 160-633889/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-633889/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-241542-1 DU	MW-05	Total/NA	Water	PrecSep-21	

Prep Batch: 633892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-1	MW-05	Total/NA	Water	PrecSep_0	
500-241542-1 DU	MW-05	Total/NA	Water	PrecSep_0	

Prep Batch: 636830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-241542-2	MW-06	Total/NA	Water	PrecSep_0	
500-241542-3	MW-09	Total/NA	Water	PrecSep_0	
500-241542-4	MW-10	Total/NA	Water	PrecSep_0	
500-241542-5	2S/3S Duplicate	Total/NA	Water	PrecSep_0	
MB 160-636830/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-636830/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-633889/1-A
Matrix: Water
Analysis Batch: 637571

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 633889

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.01199	U	0.0475	0.0476	1.00	0.107	pCi/L	10/27/23 10:35	11/20/23 14:38	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	96.2		30 - 110		10/27/23 10:35	11/20/23 14:38	1			

Lab Sample ID: LCS 160-633889/2-A
Matrix: Water
Analysis Batch: 637571

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 633889

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.27		1.09	1.00	0.128	pCi/L	91	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	98.2		30 - 110						

Lab Sample ID: 500-241542-1 DU
Matrix: Water
Analysis Batch: 637551

Client Sample ID: MW-05
Prep Type: Total/NA
Prep Batch: 633889

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.100	U	0.02692	U	0.0659	1.00	0.121	pCi/L	0.47	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	97.2		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: 500-241542-1 DU
Matrix: Water
Analysis Batch: 636666

Client Sample ID: MW-05
Prep Type: Total/NA
Prep Batch: 633892

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-228	0.0782	U	-0.3540	U G	0.539	1.00	1.11	pCi/L	0.41	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	97.2		30 - 110							
Y Carrier	84.1		30 - 110							

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-636830/1-A
Matrix: Water
Analysis Batch: 637957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636830

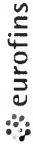
Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2584	U	0.317	0.318	1.00	0.524	pCi/L	11/14/23 11:04	11/22/23 16:17	1
Carrier	MB %Yield	MB Qualifier	Limits				Prepared		Analyzed	Dil Fac
Ba Carrier	100		30 - 110				11/14/23 11:04		11/22/23 16:17	1
Y Carrier	80.4		30 - 110				11/14/23 11:04		11/22/23 16:17	1

Lab Sample ID: LCS 160-636830/2-A
Matrix: Water
Analysis Batch: 637957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636830

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	7.70	8.437		1.22	1.00	0.527	pCi/L	110	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.0		30 - 110						
Y Carrier	83.7		30 - 110						

Chain of Custody Record



Environment Testing



Client Information (Sub Contract Lab)		Lab PM Mockler, Diana J	Carrier Tracking No(s) 500-180695.1
Client Contact Shipping/Receiving		E-Mail Diana.Mockler@et.eurofins.com	Page 1 of 1
Company TestAmerica Laboratories, Inc.		State of Origin Illinois	Job # 500-241542-2
Address 13715 Rider Trail North, City Earth City State, Zip MO, 63045 Phone 314-298-8566(Tel) 314-298-8757(Fax) Email:		Accreditations Required (See note) NELAP - Illinois	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:
Due Date Requested: 11/14/2023 TAT Requested (days):		Analysis Requested	
PO #	WO #	903.0/PrecSep_21 Standard Target List	Total Number of Containers
Project # 50011609 SSOW#	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPc	
Project Name Will County CCR (RAD) Site NRG Midwest Generation Will County		Field Filtered Sample (Yes or No)	Special Instructions/Note:
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)
MW-05 (500-241542-1)	10/24/23	09:19 Central	Water
MW-06 (500-241542-2)	10/24/23	10:29 Central	Water
MW-09 (500-241542-3)	10/24/23	13:00 Central	Water
MW-10 (500-241542-4)	10/24/23	11:38 Central	Water
2S/3S Duplicate (500-241542-5)	10/24/23	Central	Water
Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.		3	
Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.		3	
Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.		3	
Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.		3	
Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.		3	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____ Time: _____
 Relinquished by: *Pravud* Date: 10/25/23 15:30 Company: EETA
 Relinquished by: _____ Date: _____ Company: _____
 Relinquished by: _____ Date: _____ Company: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Received by: _____ Date/Time: _____ Company: _____
 Received by: *Suna Weothington* Date/Time: OCT 26 2023 08:40 Company: _____
 Received by: _____ Date/Time: _____ Company: _____
 Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-241542-2

Login Number: 241542

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8,4.3
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-241542-2

Login Number: 241542

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 10/26/23 02:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <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	



Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: MW-05

Date Collected: 10/24/23 09:19

Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			633889	KAC	EET SL	10/27/23 10:35
Total/NA	Analysis	903.0		1	637551	FLC	EET SL	11/20/23 14:39
Total/NA	Prep	PrecSep_0			633892	KAC	EET SL	10/27/23 10:40
Total/NA	Analysis	904.0		1	636666	SCB	EET SL	11/13/23 18:32
Total/NA	Analysis	Ra226_Ra228		1	637752	SCB	EET SL	11/21/23 13:27

Client Sample ID: MW-06

Date Collected: 10/24/23 10:29

Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			633889	KAC	EET SL	10/27/23 10:35
Total/NA	Analysis	903.0		1	637551	FLC	EET SL	11/20/23 14:39
Total/NA	Prep	PrecSep_0			636830	KAC	EET SL	11/14/23 11:04
Total/NA	Analysis	904.0		1	637957	SCB	EET SL	11/22/23 16:20
Total/NA	Analysis	Ra226_Ra228		1	638008	EMH	EET SL	11/22/23 21:51

Client Sample ID: MW-09

Date Collected: 10/24/23 13:00

Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			633889	KAC	EET SL	10/27/23 10:35
Total/NA	Analysis	903.0		1	637570	FLC	EET SL	11/20/23 19:09
Total/NA	Prep	PrecSep_0			636830	KAC	EET SL	11/14/23 11:04
Total/NA	Analysis	904.0		1	637959	SCB	EET SL	11/22/23 16:17
Total/NA	Analysis	Ra226_Ra228		1	638008	EMH	EET SL	11/22/23 21:51

Client Sample ID: MW-10

Date Collected: 10/24/23 11:38

Date Received: 10/25/23 09:30

Lab Sample ID: 500-241542-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			633889	KAC	EET SL	10/27/23 10:35
Total/NA	Analysis	903.0		1	637570	FLC	EET SL	11/20/23 19:09
Total/NA	Prep	PrecSep_0			636830	KAC	EET SL	11/14/23 11:04
Total/NA	Analysis	904.0		1	637959	SCB	EET SL	11/22/23 16:17
Total/NA	Analysis	Ra226_Ra228		1	638008	EMH	EET SL	11/22/23 21:51

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Client Sample ID: 2S/3S Duplicate

Lab Sample ID: 500-241542-5

Date Collected: 10/24/23 00:00

Matrix: Water

Date Received: 10/25/23 09:30

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep-21			633889	KAC	EET SL	10/27/23 10:35
Total/NA	Analysis	903.0		1	637570	FLC	EET SL	11/20/23 19:09
Total/NA	Prep	PrecSep_0			636830	KAC	EET SL	11/14/23 11:04
Total/NA	Analysis	904.0		1	637959	SCB	EET SL	11/22/23 16:17
Total/NA	Analysis	Ra226_Ra228		1	638008	EMH	EET SL	11/22/23 21:51

Laboratory References:

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



Tracer/Carrier Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR (RAD)

Job ID: 500-241542-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
500-241542-1	MW-05	94.5
500-241542-1 DU	MW-05	97.2
500-241542-2	MW-06	89.9
500-241542-3	MW-09	92.2
500-241542-4	MW-10	93.2
500-241542-5	2S/3S Duplicate	94.0
LCS 160-633889/2-A	Lab Control Sample	98.2
MB 160-633889/1-A	Method Blank	96.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-241542-1	MW-05	94.5	84.5
500-241542-1 DU	MW-05	97.2	84.1
500-241542-2	MW-06	99.5	88.2
500-241542-3	MW-09	97.9	81.9
500-241542-4	MW-10	99.7	84.9
500-241542-5	2S/3S Duplicate	104	83.4
LCS 160-636830/2-A	Lab Control Sample	90.0	83.7
MB 160-636830/1-A	Method Blank	100	80.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: James Thorne
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 12/31/2023 12:30:50 PM

JOB DESCRIPTION

Will County CCR MW-05 Resample

JOB NUMBER

500-243551-1

Eurofins Chicago

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
12/31/2023 12:30:50 PM

Authorized for release by
Diana Mockler, Project Manager I
Diana.Mockler@et.eurofinsus.com
(219)252-7570



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	8
QC Association	9
QC Sample Results	10
Chain of Custody	11
Receipt Checklists	12
Chronicle	13

Case Narrative

Client: Midwest Generation EME LLC
Project: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Job ID: 500-243551-1

Eurofins Chicago

Job Narrative
500-243551-1

Receipt

The sample was received on 12/7/2023 3:30 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.9°C

Metals

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

1

2

3

4

5

6

7

8

9

10

11

12

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI

Protocol References:

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

Laboratory References:

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

1

2

3

4

5

6

7

8

9

10

11

12

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-243551-1	MW-05	Water	12/07/23 11:37	12/07/23 15:30

1

2

3

4

5

6

7

8

9

10

11

12

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Client Sample ID: MW-05

Date Collected: 12/07/23 11:37

Date Received: 12/07/23 15:30

Lab Sample ID: 500-243551-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.7		0.50		mg/L		12/19/23 18:32	12/22/23 14:53	10

1

2

3

4

5

6

7

8

9

10

11

12

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

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 Association Summary

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Metals

Prep Batch: 747410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243551-1	MW-05	Total Recoverable	Water	3005A	
MB 500-747410/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-747410/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 748512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243551-1	MW-05	Total Recoverable	Water	6020B	747410
MB 500-747410/1-A	Method Blank	Total Recoverable	Water	6020B	747410
LCS 500-747410/2-A	Lab Control Sample	Total Recoverable	Water	6020B	747410

QC Sample Results

Client: Midwest Generation EME LLC
 Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-747410/1-A
Matrix: Water
Analysis Batch: 748512

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 747410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/19/23 18:32	12/22/23 14:40	1

Lab Sample ID: LCS 500-747410/2-A
Matrix: Water
Analysis Batch: 748512

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 747410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.989		mg/L		99	80 - 120




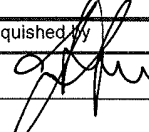
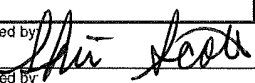
Eurofins Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

MKE 232 

Environment Testing

Client Information		Sampler: <u>LAN JOHN HOWESON</u>		Lab PM: Mockler, Diana J		Carrier Tracking No(s)		COC No: 500-111451-45942 1						
Client Contact: Patrick Allenstein		Phone: <u>630 290 6850</u>		E-Mail: Diana Mockler@et eurofinsus.com		State of Origin:		Page: Page 1 of 1						
Company: KPRG and Associates, Inc.		PWSID:		Analysis Requested						Job #: <u>500-243551</u>				
Address: 14665 West Lisbon Road, Suite 1A City: Brookfield State Zip: WI, 53005 Phone: 500 243551 COC		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 500A-500D TOTAL BOREN ONLY 6010C, 6020A, 7470A 2540C, 4500_F_C, SM4500_CL_E, SM4500_SO4_E		Total Number of containers		Preservation Codes						
QR Code: 		TAT Requested (days)						A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I - Ice U - Acetone J DI Water V - MCAA K - EDTA W pH 4-5 L - EDA Y Trizma Z other (specify)						
Email: patricka@kprginc.com		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No						Other:						
Project Name: Will County 2S/3S Event Desc: Quarterly GW Monitoring		PO #: 4502116506 WO #:												
Site: Illinois		Project #: 50011609 <u>CCR</u>		SSOW#:		Special Instructions/Note:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:								
MW-05		<u>12-7-23</u>	<u>11:37</u>	<u>G</u>	Water	<u>N</u>	<u>N</u>	<u>X</u>	<u>I</u>	<u>I</u>				
MW-06		—	—	—	Water									
MW-09		—	—	—	Water									
MW-10		—	—	—	Water									
MW-11		—	—	—	Water									
MW-12		—	—	—	Water									
2S/3S Duplicate		—	—	—	Water									
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)								
<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						<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		Date		Time		Method of Shipment:								
Relinquished by: 		Date/Time: <u>12-7-23 15:30</u>		Company: <u>KPRG</u>		Received by: 		Date/Time: <u>12/7/23 1530</u>		Company: <u>ERT</u>				
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:				
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:				
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>6.1 -> 5.9</u>										



Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-243551-1

Login Number: 243551

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Will County CCR MW-05 Resample

Job ID: 500-243551-1

Client Sample ID: MW-05
Date Collected: 12/07/23 11:37
Date Received: 12/07/23 15:30

Lab Sample ID: 500-243551-1
Matrix: Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 ¹
Total Recoverable	Analysis	6020B		10	748512	RN	EET CHI	12/22/23 14:53

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

Laboratory References:

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

