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ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

FEDERAL CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT - 2022

Midwest Generation, LLC
Joliet #29 Generating Station
1800 Channahon Road
Joliet, Illinois

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

January 31, 2023

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This overview of the 2022 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 detection monitoring program outlined in Section 257.94.

- Section 257.90(e)(6)(ii) – At the end of the current monitoring period, the subject CCR unit continues to operate under the detection monitoring program outlined in Section 257.94.

- Section 257.90(e)(6)(iii) – The following potential statistically significant increases (SSIs) above established background for Appendix III detection monitoring constituents were noted during this reporting period:

    - MW-10 – sulfate (all sampling events); total dissolved solids (TDS; 1st, 2nd and 3rd quarters); fluoride (4th quarter)
    - MW-03 – TDS (all sampling events); sulfate (1st, 2nd and 4th quarters); fluoride (4th quarter)
    - MW-04 – Sulfate (all sampling events); TDS (1st and 2nd quarters); fluoride (4th quarter)
    - MW-05 – TDS (2nd and 3rd quarters); sulfate (1st and 2nd quarters); chloride (2nd quarter)

    Well MW-10 is the upgradient monitoring point.

    The potential SSIs for chloride, TDS and sulfate have been addressed under a completed and previously submitted Alternate Source Demonstrations (ASD) in 2021 with determination being made that the SSIs are not associated with a release from the regulated

unit. The noted potential fluoride SSIs identified in the fourth quarter 2022 monitoring event, in both upgradient and downgradient monitoring wells, have not been previously recorded for this site.

- Section 257.90(e)(6)(iv) – The subject site is not in assessment monitoring.

- Section 257.90(e)(6)(v) – The subject unit is not under corrective action.

- Section 257.90(e)(6)(vi) – The subject unit is not under corrective action.

1.0 INTRODUCTION

The Detection 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) Joliet #29 Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for Ash Pond 2 which no longer contains any ash, however, the warning layer and liner are still in place. The monitoring well network around this pond consists of four monitoring wells (MW-3, MW-4, MW-5 and MW-10 [upgradient]) as shown on Figure 1.

This annual report covers the work performed relative to CCR groundwater monitoring for the 2022 calendar year. It does not duplicate information or activities reported in previous 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, summarizes the analytical data generated and provides a discussion of the statistical evaluations completed as a basis for determining the appropriate next phase of compliance activities.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network for Ash Pond 2 consists of four wells (MW-3, MW-4, MW-5 and MW-10) 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). During all sampling events, the wells were found in good condition with locked protector casings, and the concrete surface seals were intact.

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 as Figures 2 through 5. A review of the maps indicates a consistent generally southerly groundwater flow direction and a shallow horizontal hydraulic gradient. 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:

$$V_s = \frac{K\,dh}{n_e\,dl}$$, 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)

Through 2020, the average hydraulic conductivity of 3.896×10^{-3} ft/sec used in Table 2 was obtained from the Hydrogeologic Assessment Report dated February 2011 and prepared by Patrick Engineering. As part of Illinois EPA State CCR Rule requirements, some groundwater modeling was being completed for Ash Pond 2. The Patrick Engineering slug test data were re-evaluated as part of the modeling exercise and a modified hydraulic

geometric mean of 1.968 x 10^{-3} ft/sec was estimated and subsequently used in Table 2 for 2021 and 2022 estimates. The estimated effective porosity of the aquifer 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 2022 is provided in Table 3, in accordance with 257.90 (e)(3). Analytical data packages are included in Appendix A.

3.2 Data Summary

The analytical data from the detection monitoring groundwater samples for Appendix III parameters are provided in Table 4. Quarterly groundwater sampling was completed for Appendix III in 2022 which exceeds the minimum detection monitoring requirements under Section 257.94. The table includes the sample dates and whether the specific well is considered upgradient or downgradient relative to groundwater flow and the regulated unit. For each monitoring event a duplicate sample was collected. Confirmatory resampling in accordance with CCR Compliance Statistical Approach for Groundwater Data Evaluation for Joliet #29 Station dated October 10, 2017 were limited to any potential statistically significant increases (SSI) for specific parameters at specific wells for which previous ASDs were not completed. For this reporting period, the resampling was for the potential fluoride SSI detected in upgradient monitoring well MW-10 in the fourth quarter sampling. The resampling confirmed the potential SSI. It is noted that confirmation resampling was inadvertently not completed for fluoride at wells MW-03 and MW-04.

Relative to the other potential SSIs for TDS, sulfate and chloride noted for 2022 sampling, an ASD was completed on October 11, 2021 and was included in the Annual Groundwater Monitoring and Corrective Action Report – 2021 dated January 31, 2022. The results of the ASD concluded that the noted SSIs for TDS, sulfate and chloride were not associated with a potential release from Ash Pond 2 but rather an alternate transient source of impacts, potentially from upgradient and offsite. The detections of these parameters during the 2022 sampling were within the same range or less than in 2021 sampling.

3.3. Current Status

Joliet Generating Station #29 – Pond 2 is currently, and continues to be, in detection monitoring. There has been no transition between monitoring programs in 2022. The most recent groundwater analytical results indicate a potential SSI of fluoride in upgradient monitoring well MW-10 as well as in two downgradient monitoring wells (MW-03 and MW-04). An ASD in accordance with 40 CFR Section 257.94(e)(2) will be conducted within 90-days of receipt of the verification sampling data for monitoring well MW-10 (verification sampling data received January 13, 2023) to evaluate the fluoride source at

which point a determination will be made whether to continue with detection monitoring or transition to an assessment monitoring program under Section 257.95.

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The detection monitoring requirements in accordance with the Federal CCR Rule have successfully been met. Groundwater monitoring wells that had analytical results showing parameters concentrations above established PLs that have not been previously addressed within an ASD were resampled to minimize potential for a false positive. The resampling for the potential fluoride SSI in the fourth quarter at upgradient monitoring well MW-10 confirmed the elevated fluoride concentration. At this time, it is recommended that an ASD in accordance with 40 CFR Section 257.94(e)(2) be completed for the elevated fluoride detections at upgradient well MW-10 and downgradient wells MW-03 and MW-04. The results of that ASD will be used to determine whether the site will remain within detection monitoring under Section 257.94 or be transitioned to assessment monitoring under Section 257.95.

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.

- Fetter, C.W. Jr., Applied Hydrogeology. Charles E. Merrill Publishing Co., 1980.

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- KPRG and Associates, Inc., CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation, LLC Joliet #29 Generating Station. October 10, 2017.

- KPRG and Associates, Inc., CCR Groundwater Monitoring Statistical Evaluation Summary - 2017, Midwest Generation, LLC Joliet #29 Generating Station. January 12, 2018.

- KPRG and Associates, Inc., CCR Annual Groundwater Monitoring and Corrective Action Report - 2017, Midwest Generation, LLC Joliet #29 Generating Station. January 31, 2018.

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- KPRG and Associates, Inc., CCR Annual Groundwater Monitoring and Corrective Action Report - 2019, Midwest Generation, LLC Joliet #29 Generating Station. January 31, 2020.

- KPRG and Associates, Inc., CCR Annual Groundwater Monitoring and Corrective Action Report - 2020, Midwest Generation, LLC Joliet #29 Generating Station. January 31, 2021.

- KPRG and Associates, Inc., Alternate Source Demonstration – CCR Groundwater Monitoring Joliet #29 Generating Station, October 11, 2021.

- KPRG and Associates, Inc., CCR Annual Groundwater Monitoring and Corrective Action Report - 2021, Midwest Generation, LLC Joliet #29 Generating Station. January 31, 2022.

- Patrick Engineering, Inc., Hydrogeologic Assessment Report – Joliet Generating Station No. 29, Joliet, IL. February 2011.

FIGURES

0 100'
APPROXIMATE SCALE

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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 WELLS SITE MAP

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 100' | Date: December 27, 2017

KPRG Project No. 12313.0 | FIGURE 1

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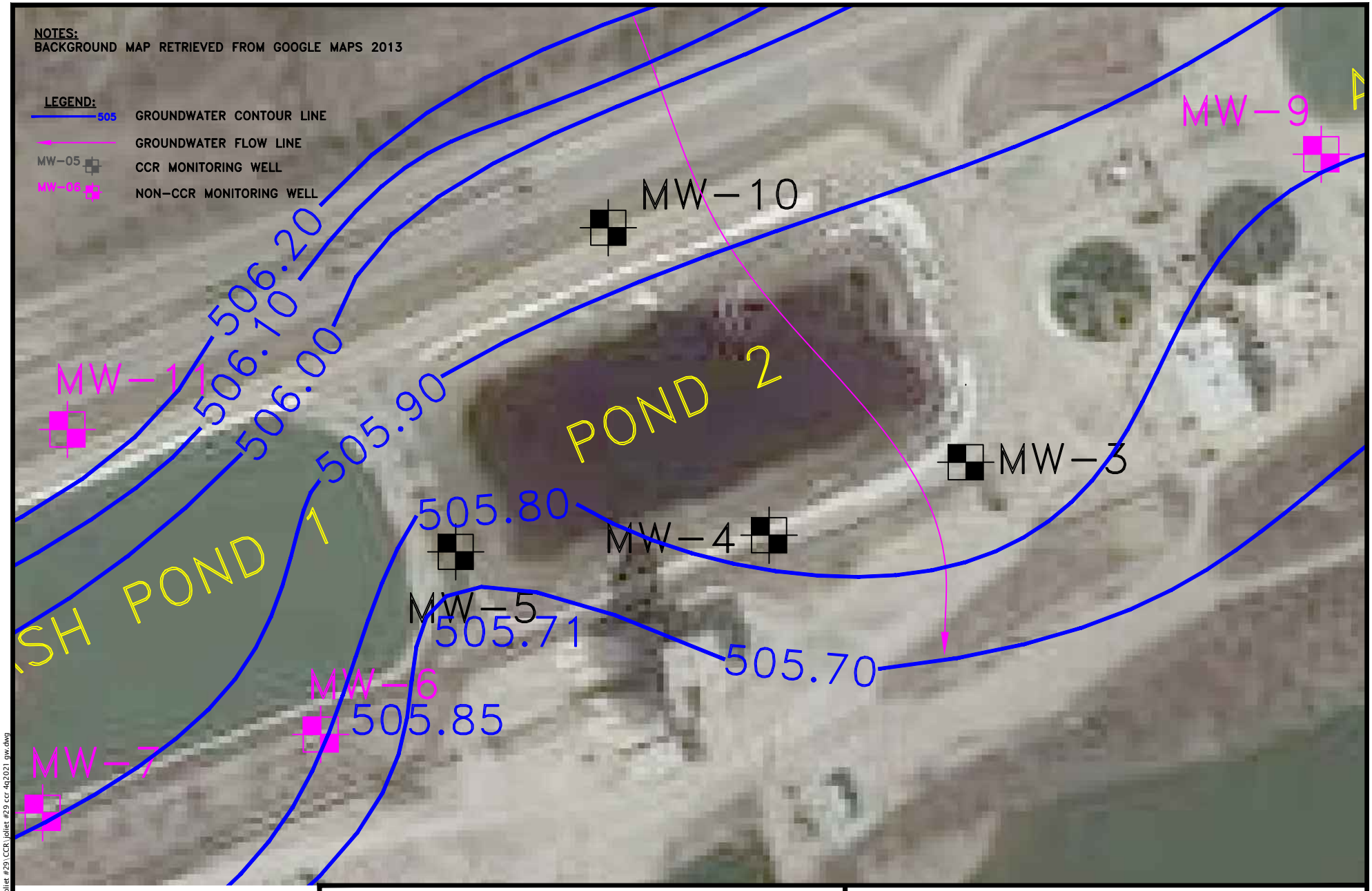

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KPRG

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

CCR GROUNDWATER CONTOUR MAP 1Q2022

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: April 18, 2022

KPRG Project No. 12313.0 | FIGURE 2

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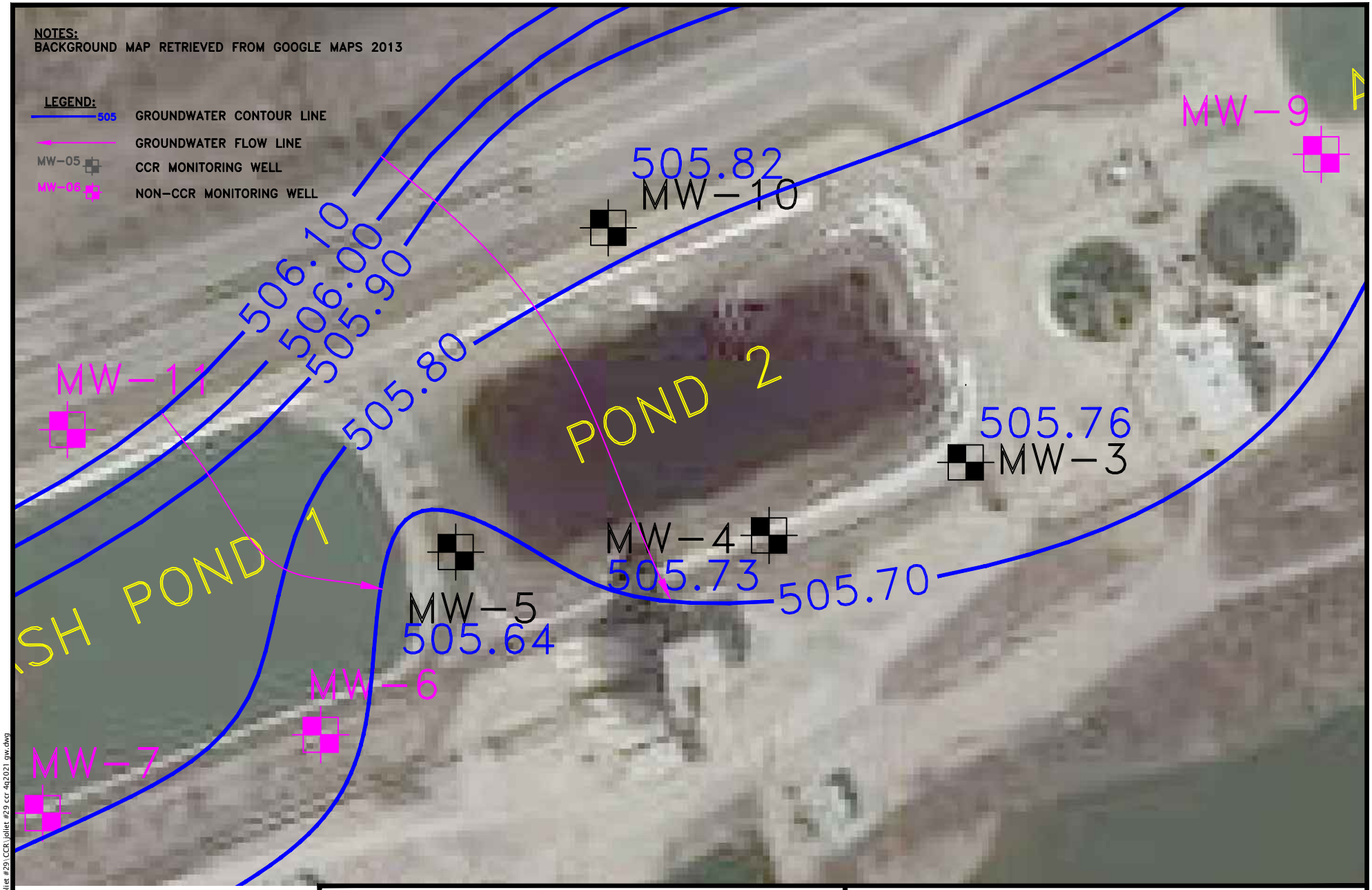

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0 125'
APPROXIMATE SCALE

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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

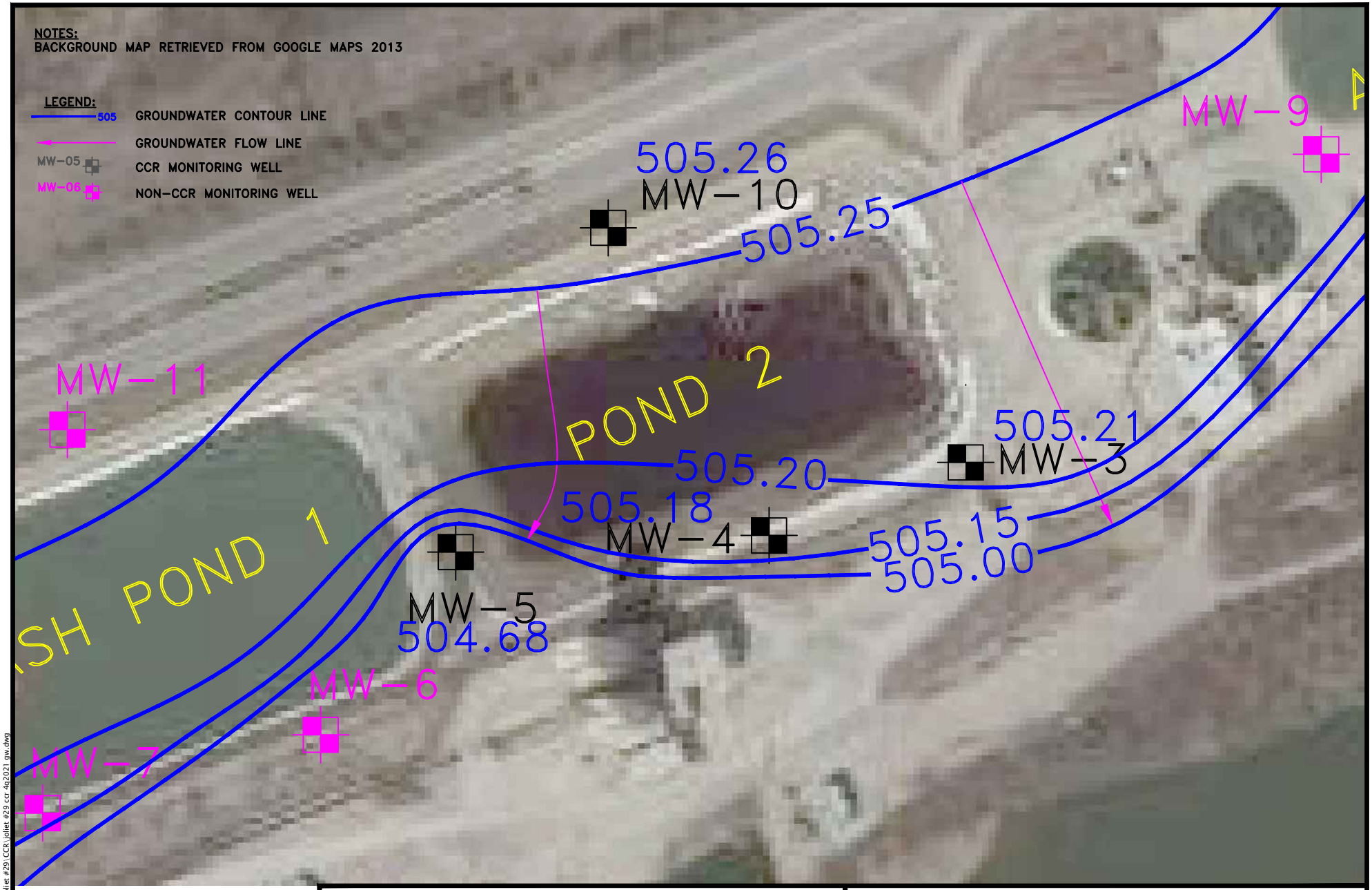
414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

CCR GROUNDWATER CONTOUR MAP 2Q2022

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 18, 2023

KPRG Project No. 12313.0 | FIGURE 3



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0 125'
APPROXIMATE SCALE

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K P R G

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

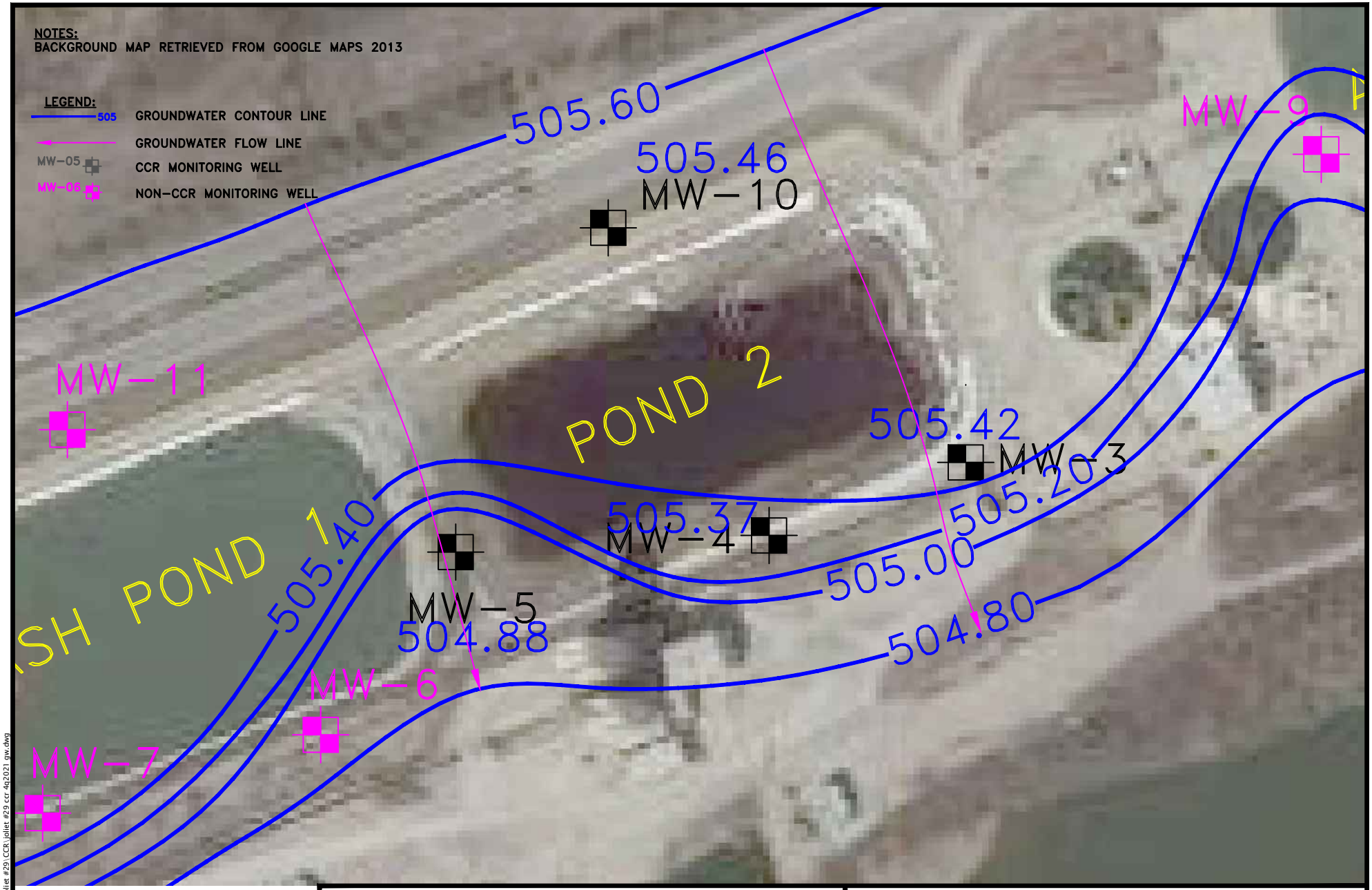
414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

CCR GROUNDWATER CONTOUR MAP 3Q2022

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 18, 2023

KPRG Project No. 12313.0 | FIGURE 4



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K P R G

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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

CCR GROUNDWATER CONTOUR MAP 4Q2022

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 18, 2023

KPRG Project No. 12313.0 | FIGURE 5

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TABLES

Table 1. Groundwater Elevations - Midwest Generation, LLC, Joliet Station #29, Joliet, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-03	10/27/15	538.79	33.87	504.91
	02/09/16	538.79	33.17	505.62
	05/10/16	538.79	32.82	505.97
	08/30/16	538.79	31.88	506.91
	11/01/16	538.79	32.88	505.91
	02/06/17	538.79	33.25	505.54
	04/25/17	538.79	33.06	505.73
	06/14/17	538.79	33.74	505.05
	08/01/17	538.79	32.36	506.43
	10/18/17	538.79	30.03	508.76
	04/24/18	538.79	32.83	505.96
	10/16/18	538.79	32.58	506.21
	05/06/19	538.79	29.59	509.20
	11/06/19	538.79	33.38	505.41
	05/20/20	538.79	27.13	511.66
	10/21/20	538.79	33.52	505.27
	05/17/21	538.79	33.05	505.74
	06/11/21	538.79	33.64	505.15
	07/19/21	538.79	33.28	505.51
	08/09/21	538.79	33.85	504.94
	11/15/21	538.79	33.19	505.60
	01/19/22	538.79	33.38	505.41
	02/16/22	538.79	33.17	505.62
	03/03/22	538.79	32.92	505.87
	04/05/22	538.79	31.76	507.03
	05/23/22	538.79	33.03	505.76
	06/30/22	538.79	33.47	505.32
	07/19/22	538.79	33.62	505.17
	08/30/22	538.79	33.58	505.21
	09/20/22	538.79	33.56	505.23
	10/13/22	538.79	33.40	505.39
	11/08/22	538.79	33.37	505.42
	12/20/22	538.79	33.05	505.74
MW-04	10/27/15	539.03	34.05	504.98
	02/09/16	539.01	33.42	505.59
	05/10/16	539.01	33.07	505.94
	08/30/16	539.01	32.08	506.93
	11/01/16	539.01	33.16	505.85
	02/06/17	539.01	33.51	505.50
	04/25/17	539.01	33.29	505.72
	06/14/17	539.01	33.99	505.02
	08/01/17	539.01	32.09	506.92
	10/18/17	539.01	30.28	508.73
	04/24/18	539.01	33.10	505.91
	10/16/18	539.01	32.85	506.16
	05/06/19	539.01	29.83	509.18
	11/06/19	539.01	31.65	507.36
	05/20/20	539.01	27.40	511.61
	10/21/20	539.01	33.48	505.53
	05/17/21	539.01	33.32	505.69
	06/11/21	539.01	33.91	505.10
	07/19/21	539.01	33.55	505.46
	08/09/21	539.01	34.14	504.87
	11/15/21	539.01	33.44	505.57
	01/19/22	539.01	33.66	505.35
	02/16/22	539.01	33.44	505.57
	03/03/22	539.01	33.17	505.84
	04/05/22	539.01	32.05	506.96
	05/23/22	539.01	33.28	505.73
	06/30/22	539.01	33.72	505.29
	07/19/22	539.01	33.87	505.14
	08/30/22	539.01	33.83	505.18
	09/20/22	539.01	33.82	505.19
	10/13/22	539.01	33.67	505.34
	11/08/22	539.01	33.64	505.37
	12/20/22	539.01	33.34	505.67
MW-05	10/27/15	539.69	34.91	504.78
	02/09/16	539.64	34.18	505.46
	05/10/16	539.64	33.81	505.83
	08/30/16	539.64	32.82	506.82
	11/01/16	539.64	33.90	505.74
	02/06/17	539.64	34.23	505.41
	04/25/17	539.64	34.04	505.60
	06/14/17	539.64	34.74	504.90
	08/01/17	539.64	33.12	506.52
	10/18/17	539.64	31.03	508.61
	04/24/18	539.64	33.79	505.85
	10/16/18	539.64	33.61	506.03
	05/06/19	539.64	30.55	509.09
	11/06/19	539.64	32.40	507.24
	05/20/20	539.64	28.16	511.48
	10/21/20	539.64	34.52	505.12
	05/17/21	539.64	34.05	505.59
	06/11/21	539.64	34.66	504.98
	07/19/21	539.64	34.27	505.37
	08/09/21	539.64	34.78	504.86
	11/15/21	539.64	34.18	505.46
	01/19/22	539.64	34.37	505.27
	02/16/22	539.64	34.15	505.49
	03/03/22	539.64	33.93	505.71
	04/05/22	539.64	32.82	506.82
	05/23/22	539.64	34.00	505.64
	06/30/22	539.64	34.45	505.19
	07/19/22	539.64	34.64	505.00
	08/30/22	539.26	34.58	504.68
	09/20/22	539.26	34.58	504.68
	10/13/22	539.26	34.39	504.87
	11/08/22	539.26	34.38	504.88
	12/20/22	539.26	34.05	505.21
MW-10	10/27/15	540.03	35.10	504.93
	02/09/16	540.02	34.32	505.70
	05/10/16	540.02	34.02	506.00
	08/30/16	540.02	32.97	507.05
	11/01/16	540.02	34.04	505.98
	02/06/17	540.02	34.42	505.60
	04/25/17	540.02	34.22	505.80
	06/14/17	540.02	34.91	505.11
	08/01/17	540.02	33.18	506.84
	10/18/17	540.02	31.13	508.89
	04/24/18	540.02	33.97	506.05
	10/16/18	540.02	33.73	506.29
	05/06/19	540.02	30.58	509.44
	11/06/19	540.02	32.42	507.60
	05/20/20	540.02	28.09	511.93
	10/21/20	540.02	34.72	505.30
	05/17/21	540.02	34.23	505.79
	06/11/21	540.02	34.81	505.21
	07/19/21	540.02	34.45	505.57
	08/09/21	540.02	35.05	504.97
	11/15/21	540.02	34.38	505.64
	01/19/22	540.02	34.59	505.43
	02/16/22	540.02	34.38	505.64
	03/03/22	540.02	34.10	505.92
	04/05/22	540.02	32.89	507.13
	05/23/22	540.02	34.20	505.82
	06/30/22	540.02	34.68	505.34
	07/19/22	540.02	34.80	505.22
	08/30/22	540.02	34.76	505.26
	09/20/22	540.02	34.74	505.28
	10/13/22	540.02	34.61	505.41
	11/08/22	540.02	34.56	505.46
	12/20/22	540.02	34.22	505.80

MSL - Mean Sea Level
TOC - Top of Casing

Table 2. Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate - Joliet #29 Generation Station.

DATE	Groundwater Flow Direction	K_{avg} (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
5/17/2021	Southerly (SSW-SSE)	1.968E-03	0.0008	0.35	0.37
11/15/2021	Southerly (SSW-SSE)	1.968E-03	0.00118	0.35	0.57
3/3/2022	Southerly (SSW-SSE)	1.968E-03	0.0011	0.35	0.53
5/23/2022	Southerly (SSW-SSE)	1.968E-03	0.0011	0.35	0.53
8/30/2022	Southerly (SSW-SSE)	1.968E-03	0.0010	0.35	0.49
11/8/2022	Southerly (SSW-SSE)	1.968E-03	0.0016	0.35	0.78

* 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 Applied Hydrogeology, Fetter, 1980.

SSW - South-southwest

SSE - South-southeast

Table 3. CCR Groundwater Sample Collection Summary for 2022 - Joliet #29 Generating Station

Well ID	Number of Groundwater Sampling Events	Dates Groundwater Sampling Events	Detection Monitoring (D) versus Assessment Monitoring (A)
MW-10 (Upgradient)	4	3/3/2022	D
		5/26/2022	D
		8/31/2022	D
		11/9/2022	D
MW-03 (Downgradient)	4	3/3/2022	D
		5/26/2022	D
		8/31/2022	D
		11/9/2022	D
MW-04 (Downgradient)	4	3/3/2022	D
		5/26/2022	D
		8/31/2022	D
		11/9/2022	D
MW-05 (Downgradient)	4	3/3/2022	D
		5/26/2022	D
		8/31/2022	D
		11/9/2022	D

Table 4. Appendix III Groundwater Analytical Results for 2022 - Midwest Generation, LLC, Joliet Station #29, Joliet, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-10 up-gradient	10/28/2015	0.47	100	200	0.41	7.04	84	790
	2/10/2016	0.41	100	210	0.44	7.17	120	820
	5/12/2016	0.29	100	300	0.42	7.02	110	920
	8/31/2016	0.36	89	170	0.46	6.95	100	760
	11/2/2016	0.48	100	130	0.45	6.99	95	720
	2/6/2017	0.44	120	190	0.36	6.99	88	820
	4/26/2017	0.35	120	200	0.35	7.27	87	760
	6/14/2017	0.29	91	160	0.43	7.47	75	690
	Pred. Limit*	**0.57**	**131**	**318**	**0.51**	**7.56-6.67**	**131**	**959**
	8/2/2017	0.45	97	170	0.38	7.23	110	750
	10/18/2017	**0.61**	120	140	0.41	7.11	130	820
	4/24/2018	0.4	110	260	0.39	7.28	120	910
	10/17/2018	**0.63**	120	180	0.42	7.30	110	810
	11/24/2018 R	0.44	NA	NA	NA	NA	NA	NA
	5/7/2019	0.56	130	**410**	0.39	7.17	95	**1,000**
	7/3/2019 R	NA	NA	230	NA	NA	NA	830
	11/7/2019	0.35	90	130	0.36	7.40	59	650
	5/20/2020	**0.85**	120	250	0.41	6.90	100	**960**
	6/11/2020 R	0.26	NA	NA	NA	NA	NA	770
	10/22/2020	0.34	110	230	0.41	7.11	93	850
	5/18/2021	0.33	**140**	**350**	0.39	7.16	**210**	**1,200**
	6/29/2021 R	NA	**160**	**420**	NA	7.32	**190**	**1,300**
	8/30/2021	0.28	120	**330**	0.37	7.56	**170**	**990**
	11/16/2021	0.39	120	260	0.38	7.01	**150**	**1,000**
	3/3/2022	0.47	120	280	0.41	7.05	**190**	**1,000**
	5/26/2022	0.39	120	280	0.41	6.90	**160**	**1,000**
	8/31/2022	0.33	110	240	0.41	6.58	**160**	**970**
	11/9/2022	0.32	110	240	**0.57**	7.00	**150**	**880**
	12/20/2022 (R)	NS	NS	NS	**0.68**	NS	NS	NS
MW-03 down-gradient	10/28/2015	0.34	110	230	0.41	7.11	110	960
	2/10/2016	0.49	100	220	0.44	7.31	130	790
	5/10/2016	0.48	95	240	0.44	7.07	130	800
	8/31/2016	0.49	100	250	0.45	7.18	120	920
	11/2/2016	0.34	87	190	0.44	7.45	94	780
	2/6/2017	0.40	97	140	0.39	7.35	77	720
	4/26/2017	0.54	100	210	0.36	7.03	120	820
	6/14/2017	0.45	88	190	0.44	7.48	75	760
	Pred. Limit	**0.57**	**131**	**316**	**0.51**	**7.56-6.67**	**130**	**956**
	8/2/2017	0.41	99	200	0.40	7.34	110	850
	10/18/2017	0.35	93	160	0.42	7.11	100	850
	4/24/2018	0.52	100	220	0.42	7.2	**150**	930
	7/31/2018 R	NA	NA	NA	NA	NA	110	NA
	10/17/2018	0.25	100	250	0.4	7.04	110	870
	5/7/2019	0.43	120	280	0.4	7.27	**140**	880
	7/3/2019 R	NA	NA	NA	NA	NA	65	NA
	11/7/2019	0.34	100	150	0.4	7.32	65	660
	5/20/2020	0.38	100	230	0.42	7.56	78	**960**
	6/11/2020 R	NA	NA	NA	NA	NA	NA	930
	10/22/2020	0.32	110	180	0.43	7.23	90	770
	5/18/2021	0.28	130	290	0.4	7.13	**190**	**1,200**
	6/29/2021 R	NA	NA	NA	NA	7.34	**210**	**1,300**
	11/16/2021	0.3	130	280	0.37	7.11	**150**	**1,000**
	3/3/2022	0.3	130	270	0.4	7.05	**180**	**1,300**
	5/26/2022	0.39	120	280	0.41	6.98	**160**	**1,100**
	8/31/2022	0.23	110	270	0.39	6.25	130	**1,200**
	11/9/2022	0.25	120	300	**0.54**	7.03	**140**	**1,100**
MW-04 down-gradient	10/28/2015	0.34	94	F1 200	0.45	7.07	83	740
	2/10/2016	0.32	97	210	0.47	7.22	140	810
	5/10/2016	0.47	100	260	0.46	6.71	150	900
	8/31/2016	0.42	100	210	0.45	7.07	120	890
	11/2/2016	0.32	98	160	0.43	7.25	83	750
	2/6/2017	0.40	110	200	0.37	7.19	98	790
	4/26/2017	0.33	100	220	0.37	7.46	89	770
	6/14/2017	0.37	92	190	0.47	7.43	80	770
	Pred. Limit	**0.57**	**131**	**316**	**0.51**	**7.56-6.67**	**130**	**956**
	8/2/2017	0.35	93	180	0.43	7.41	100	770
	10/18/2017	0.54	97	140	0.45	7.2	120	790
	4/24/2018	0.4	110	240	0.43	7.21	**160**	940
	7/31/2018 R	NA	NA	NA	NA	NA	120	NA
	10/17/2018	0.29	100	230	0.45	7.2	130	840
	5/7/2019	**0.76**	120	**340**	0.42	7.27	120	**1,000**
	7/3/2019 R	0.23	NA	250	NA	NA	NA	870
	11/6/2019	0.3	77	140	0.41	7.33	53	670
	5/20/2020	**0.79**	110	250	0.45	7.3	110	**1,100**
	6/11/2020 R	0.28	NA	NA	NA	NA	NA	850
	10/22/2020	0.33	100	190	0.48	7.15	83	770
	5/18/2021	0.22	120	280	0.42	7.3	**190**	**1,100**
	6/29/2021 R	NA	NA	NA	NA	7.36	**190**	**1,200**
	11/16/2021	0.3	130	290	0.42	7.11	**140**	**1,000**
	3/3/2022	0.31	120	220	0.42	7.11	**170**	**1,300**
	5/26/2022	0.26	110	290	0.44	6.94	**150**	**1,100**
	8/31/2022	0.32	120	240	0.45	6.38	**150**	870
	11/9/2022	0.34	120	240	**0.61**	7.08	**150**	940
MW-05 down-gradient	10/28/2015	0.64	100	160	0.39	7.12	120	790
	2/10/2016	0.46	110	220	0.39	7.25	120	790
	5/10/2016	0.8	150	220	0.46	6.88	290	950
	8/31/2016	1.0	140	99	0.56	6.81	260	820
	11/2/2016	0.41	98	130	0.37	7.26	100	700
	2/6/2017	0.48	150	180	0.30	7.22	120	790
	4/26/2017	0.67	110	F1 190	0.37	7.28	170	770
	6/14/2017	0.44	75	150	0.46	7.45	110	670
	Pred. Limit	**0.57**	**131**	**316**	**0.51**	**7.56-6.67**	**130**	**956**
	8/2/2017	0.28	83	170	0.35	7.30	99	770
	10/18/2017	0.42	110	110	0.38	7.16	95	720
	4/24/2018	0.31	110	300	0.34	7.33	130	**1,000**
	7/31/2018 R	NA	NA	NA	NA	NA	NA	940
	10/17/2018	0.31	110	210	0.36	7.29	93	810
	5/6/2019	0.38	130	**500**	0.31	7.11	84	**1,300**
	7/3/2019 R	NA	NA	150	NA	NA	NA	890
	11/7/2019	0.31	**180**	130	0.3	7.44	64	590
	12/4/2019 R	NA	89	NA	NA	NA	NA	NA
	5/20/2020	0.32	100	270	0.37	7.03	67	890
	10/22/2020	0.52	92	180	0.38	7.16	85	720
	5/18/2021	0.37	130	**410**	0.3	7.00	**160**	**1,300**
	6/29/2021 R	NA	NA	**430**	NA	7.33	**150**	**1,300**
	11/16/2021	0.44	120	260	0.3	7.08	**140**	**970**
	3/3/2022	0.43	110	230	0.3	7.04	**140**	900
	5/26/2022	0.55	120	**320**	0.31	6.86	**140**	**1,100**
	8/31/2022	0.43	110	240	0.32	6.50	130	**1,100**
	11/9/2022	0.39	120	230	0.42	7.00	120	910

Notes: All units are in mg/l except pH is in standard units.
* - Intrawell Prediction Limit. All others are interwell comparisons with MW-10 as background..
Bold - Potential statistically significant increase.
F1 - MS and/or MSD Recovery outside of limits.
Pred. Limit - Prediction Limit
Italics Date - First round of Detection Monitoring and resample after statistical background establishment.
NA - Not analyzed. No confirmation resample required.
R - Resample

APPENDIX A
Analytical Data Packages

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-213202-1
Client Project/Site: Joliet #29 CCR

For:
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Attn: DeAndre Cooley

Diana Mockler

Authorized for release by:
3/23/2022 2:55:18 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

Table of Contents

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Job ID: 500-213202-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-213202-1

Comments
No additional comments.

Receipt
The samples were received on 3/4/2022 1:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° 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.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

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

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-213202-1	MW-03	Water	03/03/22 10:50	03/04/22 13:51
500-213202-2	MW-04	Water	03/03/22 11:58	03/04/22 13:51
500-213202-3	MW-05	Water	03/03/22 14:00	03/04/22 13:51
500-213202-4	MW-10	Water	03/03/22 13:02	03/04/22 13:51
500-213202-5	Duplicate	Water	03/03/22 00:00	03/04/22 13:51

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-03

Date Collected: 03/03/22 10:50
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 18:55	1
Arsenic	**0.0019**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:55	1
Barium	**0.14**		0.0025		mg/L		03/15/22 09:04	03/15/22 18:55	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:55	1
Boron	**0.30**		0.050		mg/L		03/15/22 09:04	03/16/22 12:56	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Calcium	**130**		0.20		mg/L		03/15/22 09:04	03/15/22 18:55	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Cobalt	**0.0014**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:55	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Lithium	**0.012**		0.0020		mg/L		03/15/22 09:04	03/15/22 18:55	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:55	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:55	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 09:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10		mg/L			03/10/22 04:39	1
Chloride	**270**		20		mg/L			03/22/22 11:01	10
Fluoride	**0.40**		0.10		mg/L			03/14/22 11:34	1
Sulfate	**180**		25		mg/L			03/22/22 13:10	5

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-04
Date Collected: 03/03/22 11:58
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 18:58	1
Arsenic	**0.0018**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:58	1
Barium	**0.12**		0.0025		mg/L		03/15/22 09:04	03/15/22 18:58	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:58	1
Boron	**0.31**		0.050		mg/L		03/15/22 09:04	03/16/22 12:59	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Calcium	**120**		0.20		mg/L		03/15/22 09:04	03/15/22 18:58	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Cobalt	**0.0029**		0.0010		mg/L		03/15/22 09:04	03/15/22 18:58	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Lithium	**0.012**		0.0020		mg/L		03/15/22 09:04	03/15/22 18:58	1
Molybdenum	**0.0056**		0.0050		mg/L		03/15/22 09:04	03/15/22 18:58	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:58	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		10		mg/L			03/10/22 04:45	1
Chloride	**220**		20		mg/L			03/22/22 11:02	10
Fluoride	**0.42**		0.10		mg/L			03/14/22 11:38	1
Sulfate	**170**		25		mg/L			03/22/22 13:10	5

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-05

Date Collected: 03/03/22 14:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 19:02	1
Arsenic	**0.0015**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:02	1
Barium	**0.074**		0.0025		mg/L		03/15/22 09:04	03/15/22 19:02	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:02	1
Boron	**0.43**		0.050		mg/L		03/15/22 09:04	03/16/22 13:02	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Calcium	**110**		0.20		mg/L		03/15/22 09:04	03/15/22 19:02	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Cobalt	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:02	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Lithium	**0.017**		0.0020		mg/L		03/15/22 09:04	03/15/22 19:02	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:02	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 19:02	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 19:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**900**		10		mg/L			03/10/22 04:47	1
Chloride	**230**		20		mg/L			03/22/22 11:02	10
Fluoride	**0.30**		0.10		mg/L			03/14/22 11:42	1
Sulfate	**140**		25		mg/L			03/22/22 13:10	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-10

Date Collected: 03/03/22 13:02
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 19:05	1
Arsenic	**0.0014**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:05	1
Barium	**0.055**		0.0025		mg/L		03/15/22 09:04	03/15/22 19:05	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:05	1
Boron	**0.47**		0.050		mg/L		03/15/22 09:04	03/16/22 13:06	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Calcium	**120**		0.20		mg/L		03/15/22 09:04	03/15/22 19:05	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Cobalt	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:05	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Lithium	**0.013**		0.0020		mg/L		03/15/22 09:04	03/15/22 19:05	1
Molybdenum	**0.0066**		0.0050		mg/L		03/15/22 09:04	03/15/22 19:05	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 19:05	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 19:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			03/10/22 04:50	1
Chloride	**280**		20		mg/L			03/22/22 11:02	10
Fluoride	**0.41**		0.10		mg/L			03/14/22 11:46	1
Sulfate	**190**		25		mg/L			03/22/22 13:11	5

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: Duplicate

Date Collected: 03/03/22 00:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 19:09	1
Arsenic	**0.0020**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:09	1
Barium	**0.14**		0.0025		mg/L		03/15/22 09:04	03/15/22 19:09	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 19:09	1
Boron	**0.31**		0.050		mg/L		03/15/22 09:04	03/16/22 13:10	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Calcium	**130**		0.20		mg/L		03/15/22 09:04	03/15/22 19:09	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Cobalt	**0.0013**		0.0010		mg/L		03/15/22 09:04	03/15/22 19:09	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Lithium	**0.012**		0.0020		mg/L		03/15/22 09:04	03/15/22 19:09	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 19:09	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 19:09	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 19:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 10:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			03/10/22 04:52	1
Chloride	**270**		20		mg/L			03/22/22 11:30	10
Fluoride	**0.39**		0.10		mg/L			03/14/22 12:00	1
Sulfate	**180**		25		mg/L			03/22/22 13:11	5

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

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.
¤	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

Metals

Prep Batch: 647021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total Recoverable	Water	3005A	
500-213202-2	MW-04	Total Recoverable	Water	3005A	
500-213202-3	MW-05	Total Recoverable	Water	3005A	
500-213202-4	MW-10	Total Recoverable	Water	3005A	
500-213202-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-647021/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-647021/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 647036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	7470A	
500-213202-2	MW-04	Total/NA	Water	7470A	
500-213202-3	MW-05	Total/NA	Water	7470A	
500-213202-4	MW-10	Total/NA	Water	7470A	
500-213202-5	Duplicate	Total/NA	Water	7470A	
MB 500-647036/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-647036/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-213202-4 MS	MW-10	Total/NA	Water	7470A	
500-213202-4 MSD	MW-10	Total/NA	Water	7470A	
500-213202-4 DU	MW-10	Total/NA	Water	7470A	

Analysis Batch: 647251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total Recoverable	Water	6020A	647021
500-213202-2	MW-04	Total Recoverable	Water	6020A	647021
500-213202-3	MW-05	Total Recoverable	Water	6020A	647021
500-213202-4	MW-10	Total Recoverable	Water	6020A	647021
500-213202-5	Duplicate	Total Recoverable	Water	6020A	647021
MB 500-647021/1-A	Method Blank	Total Recoverable	Water	6020A	647021
LCS 500-647021/2-A	Lab Control Sample	Total Recoverable	Water	6020A	647021

Analysis Batch: 647320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	7470A	647036
500-213202-2	MW-04	Total/NA	Water	7470A	647036
500-213202-3	MW-05	Total/NA	Water	7470A	647036
500-213202-4	MW-10	Total/NA	Water	7470A	647036
500-213202-5	Duplicate	Total/NA	Water	7470A	647036
MB 500-647036/12-A	Method Blank	Total/NA	Water	7470A	647036
LCS 500-647036/13-A	Lab Control Sample	Total/NA	Water	7470A	647036
500-213202-4 MS	MW-10	Total/NA	Water	7470A	647036
500-213202-4 MSD	MW-10	Total/NA	Water	7470A	647036
500-213202-4 DU	MW-10	Total/NA	Water	7470A	647036

Analysis Batch: 647348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total Recoverable	Water	6020A	647021
500-213202-2	MW-04	Total Recoverable	Water	6020A	647021
500-213202-3	MW-05	Total Recoverable	Water	6020A	647021
500-213202-4	MW-10	Total Recoverable	Water	6020A	647021
500-213202-5	Duplicate	Total Recoverable	Water	6020A	647021

Metals (Continued)

Analysis Batch: 647348 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-647021/1-A	Method Blank	Total Recoverable	Water	6020A	647021
LCS 500-647021/2-A	Lab Control Sample	Total Recoverable	Water	6020A	647021

General Chemistry

Analysis Batch: 646338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 2540C	
500-213202-2	MW-04	Total/NA	Water	SM 2540C	
500-213202-3	MW-05	Total/NA	Water	SM 2540C	
500-213202-4	MW-10	Total/NA	Water	SM 2540C	
500-213202-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-646338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-646338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-213202-1 DU	MW-03	Total/NA	Water	SM 2540C	

Analysis Batch: 646928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 4500 F C	
500-213202-2	MW-04	Total/NA	Water	SM 4500 F C	
500-213202-3	MW-05	Total/NA	Water	SM 4500 F C	
500-213202-4	MW-10	Total/NA	Water	SM 4500 F C	
500-213202-5	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-646928/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-646928/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 648185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-213202-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-213202-3	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-213202-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-213202-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-648185/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-648185/58	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-648185/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-648185/59	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-213202-5 MS	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-213202-5 MSD	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 648186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-213202-1	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-213202-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-213202-3	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-213202-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-213202-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-648186/42	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-648186/43	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-213202-5 MS	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-213202-5 MSD	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-647021/1-A
Matrix: Water
Analysis Batch: 647251

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/15/22 09:04	03/15/22 18:13	1
Arsenic	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:13	1
Barium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:13	1
Beryllium	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:13	1
Cadmium	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Calcium	<0.20		0.20		mg/L		03/15/22 09:04	03/15/22 18:13	1
Chromium	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Cobalt	<0.0010		0.0010		mg/L		03/15/22 09:04	03/15/22 18:13	1
Lead	<0.00050		0.00050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Lithium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:13	1
Molybdenum	<0.0050		0.0050		mg/L		03/15/22 09:04	03/15/22 18:13	1
Selenium	<0.0025		0.0025		mg/L		03/15/22 09:04	03/15/22 18:13	1
Thallium	<0.0020		0.0020		mg/L		03/15/22 09:04	03/15/22 18:13	1

Lab Sample ID: MB 500-647021/1-A
Matrix: Water
Analysis Batch: 647348

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		03/15/22 09:04	03/16/22 12:48	1

Lab Sample ID: LCS 500-647021/2-A
Matrix: Water
Analysis Batch: 647251

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.542		mg/L		108	80 - 120
Arsenic	0.100	0.103		mg/L		103	80 - 120
Barium	0.500	0.531		mg/L		106	80 - 120
Beryllium	0.0500	0.0493		mg/L		99	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Chromium	0.200	0.211		mg/L		105	80 - 120
Cobalt	0.500	0.531		mg/L		106	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Lithium	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.996		mg/L		100	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-647021/2-A
Matrix: Water
Analysis Batch: 647348

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 647021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-647036/12-A
Matrix: Water
Analysis Batch: 647320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/15/22 10:10	03/16/22 09:36	1

Lab Sample ID: LCS 500-647036/13-A
Matrix: Water
Analysis Batch: 647320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00204		mg/L		102	80 - 120

Lab Sample ID: 500-213202-4 MS
Matrix: Water
Analysis Batch: 647320

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 647036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.00102		mg/L		102	75 - 125

Lab Sample ID: 500-213202-4 MSD
Matrix: Water
Analysis Batch: 647320

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 647036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000954		mg/L		95	75 - 125	6	20

Lab Sample ID: 500-213202-4 DU
Matrix: Water
Analysis Batch: 647320

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 647036

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 500-646338/1
Matrix: Water
Analysis Batch: 646338

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			03/10/22 04:27	1

Lab Sample ID: LCS 500-646338/2
Matrix: Water
Analysis Batch: 646338

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	254		mg/L		102	80 - 120

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

Lab Sample ID: 500-213202-1 DU
Matrix: Water
Analysis Batch: 646338

Client Sample ID: MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1240		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-648185/16
Matrix: Water
Analysis Batch: 648185

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			03/22/22 10:55	1

Lab Sample ID: MB 500-648185/58
Matrix: Water
Analysis Batch: 648185

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			03/22/22 11:30	1

Lab Sample ID: LCS 500-648185/17
Matrix: Water
Analysis Batch: 648185

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		100	85 - 115

Lab Sample ID: LCS 500-648185/59
Matrix: Water
Analysis Batch: 648185

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.4		mg/L		102	85 - 115

Lab Sample ID: 500-213202-5 MS
Matrix: Water
Analysis Batch: 648185

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	270		20.0	277	4	mg/L		43	75 - 125

Lab Sample ID: 500-213202-5 MSD
Matrix: Water
Analysis Batch: 648185

Client Sample ID: 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	270		20.0	280	4	mg/L		55	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-646928/3
Matrix: Water
Analysis Batch: 646928

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			03/14/22 10:33	1

Lab Sample ID: LCS 500-646928/4
Matrix: Water
Analysis Batch: 646928

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	10.6		mg/L		106	90 - 119		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-648186/42
Matrix: Water
Analysis Batch: 648186

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			03/22/22 13:09	1

Lab Sample ID: LCS 500-648186/43
Matrix: Water
Analysis Batch: 648186

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	18.1		mg/L		91	88 - 123		

Lab Sample ID: 500-213202-5 MS
Matrix: Water
Analysis Batch: 648186

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	180		20.0	193	4	mg/L		69	75 - 125		

Lab Sample ID: 500-213202-5 MSD
Matrix: Water
Analysis Batch: 648186

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	180		20.0	193	4	mg/L		69	75 - 125	0	20

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

Chain of Custody Record

MKE 282

eurofins Environment Testing Ameri

Client Information	Sampler: M. Ress	Lab PM: Mockler Diana J	Carrier Tracking No(s):	COC No: 500-98806-43325 1
Client Contact: Mitchel Dolan	Phone: 630.203.7240	E-Mail: Diana.Mockler@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: KPRG and Associates Inc.	PWS ID:	Analysis Requested		Job #: 500-213202

Address: 414 Plaza Drive Suite 106
City: Westmont
State, Zip: IL 60559
Phone: 779-279-2321(Tel)
Email: mitchell@kprginc.com
500-213202 COC

Due Date Requested:
TAT Requested (days):
Compliance Project: Δ Yes Δ No
PO #: 4502042860
WO #:
Project #: 50011568
SSOW#:

Project Name: Joliet #29 CCR/ Event Desc Quarterly MWG Joliet #29 CCR
Site: Illinois

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	Z	other (specify)

Other:

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)	6010C 6020A, 7470A	2540C 4500_F_C, SM4500_Cl_E, SM4500_SO4_E	903.0, 904.0	Total Number of containers	Special Instructions/Note
			Preservation Codes:				D	N	D		
1 MW-03	3/3/22	10:50	G	Water			X	X	X		
2 MW-04	3/3/22	11:58	G	Water			X	X	X		
3 MW-05	3/3/22	14:00	G	Water			X	X	X		
4 ~~MW 10~~	3/3/22	13:07	G	Water			X	X	X		
5 Duplicate	3/3/22	↓	G	Water			X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
M. Ress	3/4/22 9:00	KPRG	J. Neal	3/4/22 0900	EA
J. Neal	3/4/22 1125	EA		3/4/22 1125	EAP
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No:
Cooler Temperature(s) °C and Other Remarks: 3.1

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-213202-1

Login Number: 213202
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	3.1
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: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-03
Date Collected: 03/03/22 10:50
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 18:55	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 12:56	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 09:59	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:39	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:01	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:10	LP	TAL CHI

Client Sample ID: MW-04
Date Collected: 03/03/22 11:58
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 18:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 12:59	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:01	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:02	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:10	LP	TAL CHI

Client Sample ID: MW-05
Date Collected: 03/03/22 14:00
Date Received: 03/04/22 13:51

Lab Sample ID: 500-213202-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 19:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 13:02	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:03	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:47	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:02	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:10	LP	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-213202-1

Client Sample ID: MW-10

Lab Sample ID: 500-213202-4

Date Collected: 03/03/22 13:02

Matrix: Water

Date Received: 03/04/22 13:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 19:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 13:06	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:05	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:02	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 11:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:11	LP	TAL CHI

Client Sample ID: Duplicate

Lab Sample ID: 500-213202-5

Date Collected: 03/03/22 00:00

Matrix: Water

Date Received: 03/04/22 13:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647251	03/15/22 19:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			647021	03/15/22 09:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	647348	03/16/22 13:10	FXG	TAL CHI
Total/NA	Prep	7470A			647036	03/15/22 10:10	MJG	TAL CHI
Total/NA	Analysis	7470A		1	647320	03/16/22 10:18	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	646338	03/10/22 04:52	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	648185	03/22/22 11:30	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	646928	03/14/22 12:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	648186	03/22/22 13:11	LP	TAL CHI

Laboratory References:

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-217282-1
Client Project/Site: Joliet #29 CCR Q2
Sampling Event: Quarterly MWG Joliet #29 CCR

For:
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Attn: John Niedzwiecki

Authorized for release by:
6/14/2022 9:42:07 AM

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

Table of Contents

Job ID: 500-217282-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-217282-1

Comments
No additional comments.

Receipt
The samples were received on 5/27/2022 10:05 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 2.5º C and 4.4º C.

Receipt Exceptions
The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): "Trip Blank" however no VOCs were received for any of the samples.

Metals
Method 6020A: The low level continuing calibration verification (CCVL) associated with batch 500-660498 recovered above the upper control limit for Beryllium. The samples associated with this 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: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

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

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

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-217282-1	MW-03	Water	05/26/22 15:03	05/27/22 10:05
500-217282-2	MW-04	Water	05/26/22 12:50	05/27/22 10:05
500-217282-3	MW-05	Water	05/26/22 16:50	05/27/22 10:05
500-217282-4	MW-10	Water	05/26/22 11:32	05/27/22 10:05
500-217282-5	Duplicate	Water	05/26/22 00:00	05/27/22 10:05

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: MW-03
Date Collected: 05/26/22 15:03
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/07/22 08:40	06/09/22 03:08	1
Arsenic	**0.0020**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:08	1
Barium	**0.13**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:08	1
Beryllium	<0.0010	^+	0.0010		mg/L		06/07/22 08:40	06/09/22 03:08	1
Boron	**0.39**		0.050		mg/L		06/07/22 08:40	06/09/22 03:08	1
Cadmium	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:08	1
Calcium	**120**		0.20		mg/L		06/07/22 08:40	06/09/22 03:08	1
Chromium	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:08	1
Cobalt	**0.0011**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:08	1
Lead	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:08	1
Lithium	<0.010		0.010		mg/L		06/07/22 08:40	06/09/22 03:08	1
Molybdenum	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:08	1
Selenium	**0.0042**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:08	1
Thallium	<0.0020		0.0020		mg/L		06/07/22 08:40	06/09/22 03:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/08/22 10:15	06/09/22 10:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			06/02/22 02:17	1
Chloride	**280**		20		mg/L			06/01/22 09:00	10
Fluoride	**0.41**		0.10		mg/L			06/12/22 00:15	1
Sulfate	**160**		50		mg/L			06/02/22 09:40	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: MW-04

Date Collected: 05/26/22 12:50
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/07/22 08:40	06/09/22 03:11	1
Arsenic	**0.0019**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:11	1
Barium	**0.10**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:11	1
Beryllium	<0.0010	^+	0.0010		mg/L		06/07/22 08:40	06/09/22 03:11	1
Boron	**0.26**		0.050		mg/L		06/07/22 08:40	06/09/22 03:11	1
Cadmium	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:11	1
Calcium	**110**		0.20		mg/L		06/07/22 08:40	06/09/22 03:11	1
Chromium	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:11	1
Cobalt	**0.0036**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:11	1
Lead	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:11	1
Lithium	<0.010		0.010		mg/L		06/07/22 08:40	06/09/22 03:11	1
Molybdenum	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:11	1
Selenium	<0.0025		0.0025		mg/L		06/07/22 08:40	06/09/22 03:11	1
Thallium	<0.0020		0.0020		mg/L		06/07/22 08:40	06/09/22 03:11	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/08/22 10:15	06/09/22 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			06/02/22 02:19	1
Chloride	**290**		20		mg/L			06/01/22 09:00	10
Fluoride	**0.44**		0.10		mg/L			06/12/22 00:18	1
Sulfate	**150**		50		mg/L			06/02/22 09:41	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: MW-05

Date Collected: 05/26/22 16:50
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/07/22 08:40	06/09/22 03:15	1
Arsenic	**0.0030**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:15	1
Barium	**0.082**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:15	1
Beryllium	<0.0010	^+	0.0010		mg/L		06/07/22 08:40	06/09/22 03:15	1
Boron	**0.55**		0.050		mg/L		06/07/22 08:40	06/09/22 03:15	1
Cadmium	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:15	1
Calcium	**120**		0.20		mg/L		06/07/22 08:40	06/09/22 03:15	1
Chromium	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:15	1
Cobalt	<0.0010		0.0010		mg/L		06/07/22 08:40	06/09/22 03:15	1
Lead	**0.0018**		0.00050		mg/L		06/07/22 08:40	06/09/22 03:15	1
Lithium	**0.015**		0.010		mg/L		06/07/22 08:40	06/09/22 03:15	1
Molybdenum	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:15	1
Selenium	**0.0029**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:15	1
Thallium	<0.0020		0.0020		mg/L		06/07/22 08:40	06/09/22 03:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/08/22 10:15	06/09/22 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			06/02/22 02:22	1
Chloride	**320**		20		mg/L			06/01/22 09:00	10
Fluoride	**0.31**		0.10		mg/L			06/12/22 00:21	1
Sulfate	**140**		50		mg/L			06/02/22 09:41	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: MW-10

Date Collected: 05/26/22 11:32
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/07/22 08:40	06/09/22 03:18	1
Arsenic	**0.0013**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:18	1
Barium	**0.046**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:18	1
Beryllium	<0.0010	^+	0.0010		mg/L		06/07/22 08:40	06/09/22 03:18	1
Boron	**0.39**		0.050		mg/L		06/07/22 08:40	06/09/22 03:18	1
Cadmium	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:18	1
Calcium	**120**		0.20		mg/L		06/07/22 08:40	06/09/22 03:18	1
Chromium	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:18	1
Cobalt	<0.0010		0.0010		mg/L		06/07/22 08:40	06/09/22 03:18	1
Lead	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:18	1
Lithium	<0.010		0.010		mg/L		06/07/22 08:40	06/09/22 03:18	1
Molybdenum	**0.0064**		0.0050		mg/L		06/07/22 08:40	06/09/22 03:18	1
Selenium	<0.0025		0.0025		mg/L		06/07/22 08:40	06/09/22 03:18	1
Thallium	<0.0020		0.0020		mg/L		06/07/22 08:40	06/09/22 03:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/08/22 10:15	06/09/22 10:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			06/02/22 03:19	1
Chloride	**280**		20		mg/L			06/01/22 09:35	10
Fluoride	**0.41**		0.10		mg/L			06/12/22 00:24	1
Sulfate	**160**		50		mg/L			06/02/22 09:42	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: Duplicate

Date Collected: 05/26/22 00:00
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/07/22 08:40	06/09/22 03:22	1
Arsenic	**0.0014**		0.0010		mg/L		06/07/22 08:40	06/09/22 03:22	1
Barium	**0.047**		0.0025		mg/L		06/07/22 08:40	06/09/22 03:22	1
Beryllium	<0.0010	^+	0.0010		mg/L		06/07/22 08:40	06/09/22 03:22	1
Boron	**0.39**		0.050		mg/L		06/07/22 08:40	06/09/22 03:22	1
Cadmium	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:22	1
Calcium	**120**		0.20		mg/L		06/07/22 08:40	06/09/22 03:22	1
Chromium	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 03:22	1
Cobalt	<0.0010		0.0010		mg/L		06/07/22 08:40	06/09/22 03:22	1
Lead	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 03:22	1
Lithium	<0.010		0.010		mg/L		06/07/22 08:40	06/09/22 03:22	1
Molybdenum	**0.0064**		0.0050		mg/L		06/07/22 08:40	06/09/22 03:22	1
Selenium	<0.0025		0.0025		mg/L		06/07/22 08:40	06/09/22 03:22	1
Thallium	<0.0020		0.0020		mg/L		06/07/22 08:40	06/09/22 03:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/08/22 10:15	06/09/22 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			06/02/22 03:26	1
Chloride	**280**		20		mg/L			06/01/22 09:35	10
Fluoride	**0.41**		0.10		mg/L			06/12/22 00:40	1
Sulfate	**160**		50		mg/L			06/02/22 09:42	10

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Qualifiers

Metals

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

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.
¤	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

Metals

Prep Batch: 660074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total Recoverable	Water	3005A	
500-217282-2	MW-04	Total Recoverable	Water	3005A	
500-217282-3	MW-05	Total Recoverable	Water	3005A	
500-217282-4	MW-10	Total Recoverable	Water	3005A	
500-217282-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-660074/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-660074/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 660300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total/NA	Water	7470A	
500-217282-2	MW-04	Total/NA	Water	7470A	
500-217282-3	MW-05	Total/NA	Water	7470A	
500-217282-4	MW-10	Total/NA	Water	7470A	
500-217282-5	Duplicate	Total/NA	Water	7470A	
MB 500-660300/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-660300/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 660498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total Recoverable	Water	6020A	660074
500-217282-2	MW-04	Total Recoverable	Water	6020A	660074
500-217282-3	MW-05	Total Recoverable	Water	6020A	660074
500-217282-4	MW-10	Total Recoverable	Water	6020A	660074
500-217282-5	Duplicate	Total Recoverable	Water	6020A	660074
MB 500-660074/1-A	Method Blank	Total Recoverable	Water	6020A	660074
LCS 500-660074/2-A	Lab Control Sample	Total Recoverable	Water	6020A	660074

Analysis Batch: 660533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total/NA	Water	7470A	660300
500-217282-2	MW-04	Total/NA	Water	7470A	660300
500-217282-3	MW-05	Total/NA	Water	7470A	660300
500-217282-4	MW-10	Total/NA	Water	7470A	660300
500-217282-5	Duplicate	Total/NA	Water	7470A	660300
MB 500-660300/12-A	Method Blank	Total/NA	Water	7470A	660300
LCS 500-660300/13-A	Lab Control Sample	Total/NA	Water	7470A	660300

General Chemistry

Analysis Batch: 659384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-217282-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-217282-3	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-217282-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-217282-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-659384/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-659384/52	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-659384/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-659384/53	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 659384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-5 MS	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-217282-5 MSD	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 659458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total/NA	Water	SM 2540C	
500-217282-2	MW-04	Total/NA	Water	SM 2540C	
500-217282-3	MW-05	Total/NA	Water	SM 2540C	
MB 500-659458/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-659458/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 659459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-4	MW-10	Total/NA	Water	SM 2540C	
500-217282-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-659459/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-659459/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-217282-4 MS	MW-10	Total/NA	Water	SM 2540C	
500-217282-4 DU	MW-10	Total/NA	Water	SM 2540C	
500-217282-5 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 659587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-217282-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-217282-3	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-217282-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-217282-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-659587/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-659587/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-217282-1 MS	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-217282-1 MSD	MW-03	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 660856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-217282-1	MW-03	Total/NA	Water	SM 4500 F C	
500-217282-2	MW-04	Total/NA	Water	SM 4500 F C	
500-217282-3	MW-05	Total/NA	Water	SM 4500 F C	
500-217282-4	MW-10	Total/NA	Water	SM 4500 F C	
500-217282-5	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-660856/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-660856/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-660074/1-A
Matrix: Water
Analysis Batch: 660498

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 660074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/07/22 08:40	06/09/22 02:12	1
Arsenic	<0.0010		0.0010		mg/L		06/07/22 08:40	06/09/22 02:12	1
Barium	<0.0025		0.0025		mg/L		06/07/22 08:40	06/09/22 02:12	1
Beryllium	<0.0010	^+	0.0010		mg/L		06/07/22 08:40	06/09/22 02:12	1
Boron	<0.050		0.050		mg/L		06/07/22 08:40	06/09/22 02:12	1
Cadmium	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 02:12	1
Calcium	<0.20		0.20		mg/L		06/07/22 08:40	06/09/22 02:12	1
Chromium	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 02:12	1
Cobalt	<0.0010		0.0010		mg/L		06/07/22 08:40	06/09/22 02:12	1
Lead	<0.00050		0.00050		mg/L		06/07/22 08:40	06/09/22 02:12	1
Lithium	<0.010		0.010		mg/L		06/07/22 08:40	06/09/22 02:12	1
Molybdenum	<0.0050		0.0050		mg/L		06/07/22 08:40	06/09/22 02:12	1
Selenium	<0.0025		0.0025		mg/L		06/07/22 08:40	06/09/22 02:12	1
Thallium	<0.0020		0.0020		mg/L		06/07/22 08:40	06/09/22 02:12	1

Lab Sample ID: LCS 500-660074/2-A
Matrix: Water
Analysis Batch: 660498

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 660074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.489		mg/L		98	80 - 120
Arsenic	0.100	0.0960		mg/L		96	80 - 120
Barium	0.500	0.491		mg/L		98	80 - 120
Beryllium	0.0500	0.0499	^+	mg/L		100	80 - 120
Boron	1.00	1.01		mg/L		101	80 - 120
Cadmium	0.0500	0.0488		mg/L		98	80 - 120
Calcium	10.0	9.34		mg/L		93	80 - 120
Chromium	0.200	0.199		mg/L		100	80 - 120
Cobalt	0.500	0.496		mg/L		99	80 - 120
Lead	0.100	0.0982		mg/L		98	80 - 120
Lithium	0.100	0.0965		mg/L		97	80 - 120
Molybdenum	1.00	0.925		mg/L		93	80 - 120
Selenium	0.100	0.0984		mg/L		98	80 - 120
Thallium	0.100	0.0980		mg/L		98	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-660300/12-A
Matrix: Water
Analysis Batch: 660533

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 660300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		06/08/22 10:15	06/09/22 09:24	1

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

Lab Sample ID: LCS 500-660300/13-A
Matrix: Water
Analysis Batch: 660533

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 660300

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00213		mg/L		107	80 - 120

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

Lab Sample ID: MB 500-659458/1
Matrix: Water
Analysis Batch: 659458

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			06/02/22 01:23	1

Lab Sample ID: LCS 500-659458/2
Matrix: Water
Analysis Batch: 659458

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	258		mg/L		103	80 - 120

Lab Sample ID: MB 500-659459/1
Matrix: Water
Analysis Batch: 659459

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			06/02/22 03:14	1

Lab Sample ID: LCS 500-659459/2
Matrix: Water
Analysis Batch: 659459

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	256		mg/L		102	80 - 120

Lab Sample ID: 500-217282-4 MS
Matrix: Water
Analysis Batch: 659459

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	1000		250	1340	4	mg/L		119	75 - 125

Lab Sample ID: 500-217282-4 DU
Matrix: Water
Analysis Batch: 659459

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	1000		1060		mg/L		2	5

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

Lab Sample ID: 500-217282-5 DU
Matrix: Water
Analysis Batch: 659459

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1080		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-659384/16
Matrix: Water
Analysis Batch: 659384

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			06/01/22 08:53	1

Lab Sample ID: MB 500-659384/52
Matrix: Water
Analysis Batch: 659384

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			06/01/22 09:34	1

Lab Sample ID: LCS 500-659384/17
Matrix: Water
Analysis Batch: 659384

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 500-659384/53
Matrix: Water
Analysis Batch: 659384

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	20.3		mg/L		101	85 - 115

Lab Sample ID: 500-217282-5 MS
Matrix: Water
Analysis Batch: 659384

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	280		20.0	294	4	mg/L		83	75 - 125

Lab Sample ID: 500-217282-5 MSD
Matrix: Water
Analysis Batch: 659384

Client Sample ID: 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	280		20.0	292	4	mg/L		76	75 - 125	0	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-660856/31
Matrix: Water
Analysis Batch: 660856

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			06/11/22 23:28	1

Lab Sample ID: LCS 500-660856/32
Matrix: Water
Analysis Batch: 660856

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	10.6		mg/L		106	90 - 119

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-659587/16
Matrix: Water
Analysis Batch: 659587

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			06/02/22 09:39	1

Lab Sample ID: LCS 500-659587/17
Matrix: Water
Analysis Batch: 659587

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	21.8		mg/L		109	88 - 123

Lab Sample ID: 500-217282-1 MS
Matrix: Water
Analysis Batch: 659587

Client Sample ID: MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	160		20.0	179	4	mg/L		99	75 - 125

Lab Sample ID: 500-217282-1 MSD
Matrix: Water
Analysis Batch: 659587

Client Sample ID: MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	160		20.0	179	4	mg/L		99	75 - 125	0	20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: CORY HIGGINS	Lab PM: Mockler Diana J	Carrier Tracking No(s):	COC No: 500-91207-40679 1
Client Contact: Mitchel Dolan	Phone: 630 277 6038	E-Mail: Diana Mockler@Eurofinset.com		Page: Page 1 of 1
Company: KPRG and Associates, Inc.	PWSID:			Job #: 500-217282

Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested:	Analysis Req
City: Brookfield	TAT Requested (days):	
State Zip: WI, 53005	Compliance Project: Δ Yes Δ No	
Phone: 262-781-0475	PO #: 4502042860	
Email: mitcheld@kprginc.com	WO #:	
Project Name: Quarterly MWG Joliet #29 CCR	Project #: 50011568	
Site: Illinois	SSOW#:	

500-217282 COC

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	Z other (specify)		

Other:

	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)	6010C - Lithium, 6020A - +13 elemenets, 7470A - Mercury	2540C - TDS	4500FC - Fluoride	SM00CLE - Chloride	SM4500SO4 - Sulfate	903- Rad 226	904 - Rad 228	Rad Combined				Total Number of containers	Special Instructions/Note:
				Preservation Code:				D	N	N	N	N	D	D	D					
1	MW-3	5/26/22	1503	G	W	N	N	X	X	X	X	X	X	X	X				5	*Metals List Sb,As,Ba,Be,B,Cd,Ca,Cr,Co,Pb,Mo,SeTl
2	MW-4		1250																	
3	MW-5		1650																	
4	MW-10		1132																	
5	DUPLICATE																			
	TRIP BLANK																			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

Deliverable Requested I II, III, IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Cory Higgins	5/27/22 1005	KPRG	Paula Buckley	5/27/22 1005	EETA
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
		5.8→4.4, 3.9→2.5

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-217282-1

Login Number: 217282
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	4.4,2.5
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.	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").	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: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: MW-03
Date Collected: 05/26/22 15:03
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660074	06/07/22 08:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	660498	06/09/22 03:08	FXG	TAL CHI
Total/NA	Prep	7470A			660300	06/08/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	660533	06/09/22 10:02	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	659458	06/02/22 02:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	659384	06/01/22 09:00	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	660856	06/12/22 00:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	659587	06/02/22 09:40	LP	TAL CHI

Client Sample ID: MW-04
Date Collected: 05/26/22 12:50
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660074	06/07/22 08:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	660498	06/09/22 03:11	FXG	TAL CHI
Total/NA	Prep	7470A			660300	06/08/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	660533	06/09/22 10:08	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	659458	06/02/22 02:19	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	659384	06/01/22 09:00	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	660856	06/12/22 00:18	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	659587	06/02/22 09:41	LP	TAL CHI

Client Sample ID: MW-05
Date Collected: 05/26/22 16:50
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660074	06/07/22 08:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	660498	06/09/22 03:15	FXG	TAL CHI
Total/NA	Prep	7470A			660300	06/08/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	660533	06/09/22 10:11	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	659458	06/02/22 02:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	659384	06/01/22 09:00	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	660856	06/12/22 00:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	659587	06/02/22 09:41	LP	TAL CHI

Client Sample ID: MW-10
Date Collected: 05/26/22 11:32
Date Received: 05/27/22 10:05

Lab Sample ID: 500-217282-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660074	06/07/22 08:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	660498	06/09/22 03:18	FXG	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR Q2

Job ID: 500-217282-1

Client Sample ID: MW-10

Lab Sample ID: 500-217282-4

Date Collected: 05/26/22 11:32

Matrix: Water

Date Received: 05/27/22 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			660300	06/08/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	660533	06/09/22 10:13	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	659459	06/02/22 03:19	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	659384	06/01/22 09:35	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	660856	06/12/22 00:24	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	659587	06/02/22 09:42	LP	TAL CHI

Client Sample ID: Duplicate

Lab Sample ID: 500-217282-5

Date Collected: 05/26/22 00:00

Matrix: Water

Date Received: 05/27/22 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			660074	06/07/22 08:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	660498	06/09/22 03:22	FXG	TAL CHI
Total/NA	Prep	7470A			660300	06/08/22 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	660533	06/09/22 10:15	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	659459	06/02/22 03:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		10	659384	06/01/22 09:35	LP	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	660856	06/12/22 00:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	659587	06/02/22 09:42	LP	TAL CHI

Laboratory References:

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-221617-1
Client Project/Site: Joliet #29 CCR

For:
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Attn: John Niedzwiecki

Authorized for release by:
9/29/2022 3:16:31 PM

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

Table of Contents

Job ID: 500-221617-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-221617-1

Comments
No additional comments.

Receipt
The samples were received on 9/1/2022 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 0.9º C and 1.3º C.

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

General Chemistry
Method SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 500-674233 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was 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: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

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: Joliet #29 CCR

Job ID: 500-221617-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-221617-1	MW-03	Water	08/31/22 10:05	09/01/22 09:30
500-221617-2	MW-04	Water	08/31/22 11:07	09/01/22 09:30
500-221617-3	MW-05	Water	08/31/22 12:18	09/01/22 09:30
500-221617-4	MW-10	Water	08/31/22 13:17	09/01/22 09:30
500-221617-5	Duplicate	Water	08/31/22 00:00	09/01/22 09:30

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: MW-03

Date Collected: 08/31/22 10:05
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/09/22 00:16	1
Arsenic	**0.0018**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:16	1
Barium	**0.11**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:16	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:16	1
Boron	**0.23**		0.050		mg/L		09/02/22 07:45	09/09/22 16:59	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:16	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Cobalt	**0.0011**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:16	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Lithium	**0.011**		0.010		mg/L		09/02/22 07:45	09/13/22 19:08	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:16	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:16	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		170		mg/L			09/07/22 18:57	1
Chloride	**270**		20		mg/L			09/12/22 13:16	10
Fluoride	**0.39**		0.10		mg/L			09/10/22 15:20	1
Sulfate	**130**		50		mg/L			09/12/22 15:44	10

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: MW-04
Date Collected: 08/31/22 11:07
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/09/22 00:19	1
Arsenic	**0.0016**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:19	1
Barium	**0.11**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:19	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:19	1
Boron	**0.32**		0.050		mg/L		09/02/22 07:45	09/09/22 17:02	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Calcium	**120**		0.20		mg/L		09/02/22 07:45	09/09/22 00:19	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Cobalt	**0.0018**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:19	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Lithium	**0.012**		0.010		mg/L		09/02/22 07:45	09/13/22 19:11	1
Molybdenum	**0.0055**		0.0050		mg/L		09/02/22 07:45	09/09/22 00:19	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:19	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**870**		170		mg/L			09/07/22 18:59	1
Chloride	**240**		20		mg/L			09/12/22 13:17	10
Fluoride	**0.45**		0.10		mg/L			09/10/22 15:22	1
Sulfate	**150**		50		mg/L			09/12/22 15:45	10

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: MW-05

Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/09/22 00:23	1
Arsenic	**0.0015**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:23	1
Barium	**0.066**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:23	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:23	1
Boron	**0.43**		0.050		mg/L		09/02/22 07:45	09/09/22 17:05	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:23	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Cobalt	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:23	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Lithium	**0.016**		0.010		mg/L		09/02/22 07:45	09/13/22 19:15	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:23	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:23	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		170		mg/L			09/07/22 19:00	1
Chloride	**240**		20		mg/L			09/12/22 13:18	10
Fluoride	**0.32**		0.10		mg/L			09/10/22 15:24	1
Sulfate	**130**		50		mg/L			09/12/22 15:46	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: MW-10

Date Collected: 08/31/22 13:17
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/09/22 00:26	1
Arsenic	**0.0012**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:26	1
Barium	**0.042**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:26	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:26	1
Boron	**0.33**		0.050		mg/L		09/02/22 07:45	09/09/22 17:09	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:26	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Cobalt	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:26	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Lithium	<0.010		0.010		mg/L		09/02/22 07:45	09/13/22 19:18	1
Molybdenum	**0.0057**		0.0050		mg/L		09/02/22 07:45	09/09/22 00:26	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:26	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**970**		170		mg/L			09/07/22 19:02	1
Chloride	**240**		20		mg/L			09/12/22 13:18	10
Fluoride	**0.41**		0.10		mg/L			09/10/22 15:27	1
Sulfate	**160**		50		mg/L			09/12/22 15:46	10

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: Duplicate

Date Collected: 08/31/22 00:00
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/09/22 00:29	1
Arsenic	**0.0019**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:29	1
Barium	**0.11**		0.0025		mg/L		09/02/22 07:45	09/09/22 00:29	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/09/22 00:29	1
Boron	**0.23**		0.050		mg/L		09/02/22 07:45	09/09/22 17:12	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Calcium	**110**		0.20		mg/L		09/02/22 07:45	09/09/22 00:29	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Cobalt	**0.0011**		0.0010		mg/L		09/02/22 07:45	09/09/22 00:29	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Lithium	**0.011**		0.010		mg/L		09/02/22 07:45	09/13/22 19:22	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/09/22 00:29	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/09/22 00:29	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/09/22 00:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1300**		170		mg/L			09/07/22 19:03	1
Chloride	**270**		20		mg/L			09/12/22 13:18	10
Fluoride	**0.40**		0.10		mg/L			09/10/22 15:29	1
Sulfate	**130**		50		mg/L			09/12/22 15:46	10

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

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.
¤	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

Metals

Prep Batch: 672889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	3005A	
500-221617-2	MW-04	Total Recoverable	Water	3005A	
500-221617-3	MW-05	Total Recoverable	Water	3005A	
500-221617-4	MW-10	Total Recoverable	Water	3005A	
500-221617-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-672889/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-672889/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 673884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	6020A	672889
500-221617-2	MW-04	Total Recoverable	Water	6020A	672889
500-221617-3	MW-05	Total Recoverable	Water	6020A	672889
500-221617-4	MW-10	Total Recoverable	Water	6020A	672889
500-221617-5	Duplicate	Total Recoverable	Water	6020A	672889
MB 500-672889/1-A	Method Blank	Total Recoverable	Water	6020A	672889
LCS 500-672889/2-A	Lab Control Sample	Total Recoverable	Water	6020A	672889

Analysis Batch: 674091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	6020A	672889
500-221617-2	MW-04	Total Recoverable	Water	6020A	672889
500-221617-3	MW-05	Total Recoverable	Water	6020A	672889
500-221617-4	MW-10	Total Recoverable	Water	6020A	672889
500-221617-5	Duplicate	Total Recoverable	Water	6020A	672889
MB 500-672889/1-A	Method Blank	Total Recoverable	Water	6020A	672889
LCS 500-672889/2-A	Lab Control Sample	Total Recoverable	Water	6020A	672889

Prep Batch: 674142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	7470A	
500-221617-2	MW-04	Total/NA	Water	7470A	
500-221617-3	MW-05	Total/NA	Water	7470A	
500-221617-4	MW-10	Total/NA	Water	7470A	
500-221617-5	Duplicate	Total/NA	Water	7470A	
MB 500-674142/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-674142/15-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 674381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	7470A	674142
500-221617-2	MW-04	Total/NA	Water	7470A	674142
500-221617-3	MW-05	Total/NA	Water	7470A	674142
500-221617-4	MW-10	Total/NA	Water	7470A	674142
500-221617-5	Duplicate	Total/NA	Water	7470A	674142
MB 500-674142/12-A	Method Blank	Total/NA	Water	7470A	674142
LCS 500-674142/15-A	Lab Control Sample	Total/NA	Water	7470A	674142

Analysis Batch: 674538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total Recoverable	Water	6020A	672889

Metals (Continued)

Analysis Batch: 674538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-2	MW-04	Total Recoverable	Water	6020A	672889
500-221617-3	MW-05	Total Recoverable	Water	6020A	672889
500-221617-4	MW-10	Total Recoverable	Water	6020A	672889
500-221617-5	Duplicate	Total Recoverable	Water	6020A	672889

General Chemistry

Analysis Batch: 673533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 2540C	
500-221617-2	MW-04	Total/NA	Water	SM 2540C	
500-221617-3	MW-05	Total/NA	Water	SM 2540C	
500-221617-4	MW-10	Total/NA	Water	SM 2540C	
500-221617-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-673533/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-673533/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 674042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 4500 F C	
500-221617-2	MW-04	Total/NA	Water	SM 4500 F C	
500-221617-3	MW-05	Total/NA	Water	SM 4500 F C	
500-221617-4	MW-10	Total/NA	Water	SM 4500 F C	
500-221617-5	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-674042/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-674042/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 674220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-221617-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-221617-3	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-221617-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-221617-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-674220/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-674220/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 674233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-221617-1	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-221617-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-221617-3	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-221617-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-221617-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-674233/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-674233/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-221617-1 MS	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-221617-1 MSD	MW-03	Total/NA	Water	SM 4500 SO4 E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-672889/1-A
Matrix: Water
Analysis Batch: 673884

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/02/22 07:45	09/08/22 23:21	1
Arsenic	<0.0010		0.0010		mg/L		09/02/22 07:45	09/08/22 23:21	1
Barium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/08/22 23:21	1
Beryllium	<0.0010		0.0010		mg/L		09/02/22 07:45	09/08/22 23:21	1
Cadmium	<0.00050		0.00050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Calcium	<0.20		0.20		mg/L		09/02/22 07:45	09/08/22 23:21	1
Chromium	<0.0050		0.0050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Cobalt	<0.0010		0.0010		mg/L		09/02/22 07:45	09/08/22 23:21	1
Lead	<0.00050		0.00050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Molybdenum	<0.0050		0.0050		mg/L		09/02/22 07:45	09/08/22 23:21	1
Selenium	<0.0025		0.0025		mg/L		09/02/22 07:45	09/08/22 23:21	1
Thallium	<0.0020		0.0020		mg/L		09/02/22 07:45	09/08/22 23:21	1

Lab Sample ID: MB 500-672889/1-A
Matrix: Water
Analysis Batch: 674091

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		09/02/22 07:45	09/09/22 15:39	1
Lithium	<0.010		0.010		mg/L		09/02/22 07:45	09/09/22 15:39	1

Lab Sample ID: LCS 500-672889/2-A
Matrix: Water
Analysis Batch: 673884

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.487		mg/L		97	80 - 120
Arsenic	0.100	0.0969		mg/L		97	80 - 120
Barium	0.500	0.514		mg/L		103	80 - 120
Beryllium	0.0500	0.0525		mg/L		105	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Chromium	0.200	0.207		mg/L		103	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.952		mg/L		95	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: LCS 500-672889/2-A
Matrix: Water
Analysis Batch: 674091

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 672889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	1.02		mg/L		102	80 - 120
Lithium	0.100	0.106		mg/L		106	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-674142/12-A
Matrix: Water
Analysis Batch: 674381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		09/12/22 10:20	09/13/22 07:49	1

Lab Sample ID: LCS 500-674142/15-A
Matrix: Water
Analysis Batch: 674381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00171		mg/L		86	80 - 120

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

Lab Sample ID: MB 500-673533/1
Matrix: Water
Analysis Batch: 673533

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			09/07/22 18:30	1

Lab Sample ID: LCS 500-673533/2
Matrix: Water
Analysis Batch: 673533

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	260		mg/L		104	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-674220/16
Matrix: Water
Analysis Batch: 674220

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			09/12/22 13:15	1

Lab Sample ID: LCS 500-674220/17
Matrix: Water
Analysis Batch: 674220

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 500-674042/31
Matrix: Water
Analysis Batch: 674042

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			09/10/22 14:28	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-674042/32
Matrix: Water
Analysis Batch: 674042

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	10.8		mg/L		108	90 - 119		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-674233/16
Matrix: Water
Analysis Batch: 674233

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			09/12/22 15:43	1

Lab Sample ID: LCS 500-674233/17
Matrix: Water
Analysis Batch: 674233

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		106	88 - 123		

Lab Sample ID: 500-221617-1 MS
Matrix: Water
Analysis Batch: 674233

Client Sample ID: MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate	130		20.0	146	4	mg/L		79	75 - 125		

Lab Sample ID: 500-221617-1 MSD
Matrix: Water
Analysis Batch: 674233

Client Sample ID: MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	130		20.0	146	4	mg/L		78	75 - 125	0	20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: IAN, S. HOUKSON	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-91207-40679 1
Client Contact: Mitchel Dolan	Phone: 630 290 6850	E-Mail: Diana.Mockler@Eurofinset.com	State:	Page: Page 1 of 1
Company: KPRG and Associates Inc	PWSID:	Analysis Requ		Job #: 500-221617
Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested:		500-221617 COC	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, Z other (specify); Other:
City: Brookfield	TAT Requested (days):			
State, Zip: WI, 53005	Compliance Project: Δ Yes Δ No			
Phone: 262-781-0475	PO #: 4502042860			
Email: mitcheld@kprginc.com	WO #:			
Project Name: Quarterly MWG Joliet #29 CCR	Project #: 50011568			
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)	6010C - Lithium 6020A - *13 elemenets 7470A - Mercury	2540C - TDS	4500FC - Fluoride	SM00CLE - Chloride	SM4500SO4 - Sulfate	903- Rad 226	904 - Rad 228	Rad Combined	Total Number of containers	Special Instructions/Note
	Preservation Code:							D	N	N	N	N	D	D	D		
1	MW-03	8-31-22	10:05		W	N	N	X	X	X	X	X	X	X	X	5	Metals List Sb,As,Ba,Be,B,Cd,Ca,Cr,Co,Pb,Mo,SeTl
2	MW-04	8-31-22	11:07		W	N	N	X	X	X	X	X	X	X	X	5	
3	MW-05	8-31-22	12:18		W	N	N	X	X	X	X	X	X	X	X	5	
4	MW-10	8-31-22	13:17		W	N	N	X	X	X	X	X	X	X	X	5	
5	DUPLICATE	8-31-22	—		W	N	N	X	X	X	X	X	X	X	X	5	
	TRIP BLANK	~~8-31-22~~	—	—	—											2	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

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

Deliverable Requested I, II, III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	[signature]	9-1-22 09:30	KPRG	Stephanie Hernandez	9/1/22 0930	EETA
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks	
		18+13.1+0.9	

9/29/2022

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-221617-1

Login Number: 221617

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	1.3,0.9
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: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: MW-03
Date Collected: 08/31/22 10:05
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:16
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 16:59
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:08
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:01
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 18:57
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:16
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:20
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:44

Client Sample ID: MW-04
Date Collected: 08/31/22 11:07
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:19
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:02
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:11
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:03
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 18:59
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:17
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:22
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:45

Client Sample ID: MW-05
Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:23
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:05
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:15
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:10

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-221617-1

Client Sample ID: MW-05
Date Collected: 08/31/22 12:18
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 19:00
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:18
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:24
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:46

Client Sample ID: MW-10
Date Collected: 08/31/22 13:17
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:26
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:09
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:18
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:12
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 19:02
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:18
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:27
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:46

Client Sample ID: Duplicate
Date Collected: 08/31/22 00:00
Date Received: 09/01/22 09:30

Lab Sample ID: 500-221617-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	673884	FXG	EET CHI	09/09/22 00:29
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674091	FXG	EET CHI	09/09/22 17:12
Total Recoverable	Prep	3005A			672889	BDE	EET CHI	09/02/22 07:45 - 09/02/22 08:15 [1]
Total Recoverable	Analysis	6020A		1	674538	FXG	EET CHI	09/13/22 19:22
Total/NA	Prep	7470A			674142	MJG	EET CHI	09/12/22 10:20 - 09/12/22 12:20 [1]
Total/NA	Analysis	7470A		1	674381	MJG	EET CHI	09/13/22 09:14
Total/NA	Analysis	SM 2540C		1	673533	SMO	EET CHI	09/07/22 19:03
Total/NA	Analysis	SM 4500 Cl- E		10	674220	LP	EET CHI	09/12/22 13:18
Total/NA	Analysis	SM 4500 F C		1	674042	EAT	EET CHI	09/10/22 15:29
Total/NA	Analysis	SM 4500 SO4 E		10	674233	LP	EET CHI	09/12/22 15:46

[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

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ANALYTICAL REPORT

PREPARED FOR

Attn: John Niedzwiecki
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 12/1/2022 1:47:14 PM

JOB DESCRIPTION

Joliet #29 CCR

JOB NUMBER

500-225174-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

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.

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Authorization

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

Table of Contents

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Job ID: 500-225174-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-225174-1

Comments
No additional comments.

Receipt
The samples were received on 11/10/2022 8:45 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 1.3º C and 3.2º C.

Metals
Method 6020A: The continuing calibration verification (CCV) at line 108 associated with batch 500-687308 recovered above the upper control limit for Lead. The samples associated with this CCV 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: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

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 PEN
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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-225174-1	MW-03	Water	11/09/22 09:19	11/10/22 08:45
500-225174-2	MW-04	Water	11/09/22 10:25	11/10/22 08:45
500-225174-3	MW-05	Water	11/09/22 12:11	11/10/22 08:45
500-225174-4	MW-10	Water	11/09/22 14:48	11/10/22 08:45
500-225174-5	Duplicate	Water	11/09/22 00:00	11/10/22 08:45

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: MW-03

Date Collected: 11/09/22 09:19
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-1

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		11/23/22 08:54	11/28/22 21:05	1
Arsenic	**0.0020**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:05	1
Barium	**0.12**		0.0025		mg/L		11/23/22 08:54	11/28/22 21:05	1
Beryllium	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:05	1
Boron	**0.25**		0.050		mg/L		11/23/22 08:54	11/28/22 21:05	1
Cadmium	<0.00050		0.00050		mg/L		11/23/22 08:54	11/28/22 21:05	1
Calcium	**120**		0.20		mg/L		11/23/22 08:54	11/28/22 21:05	1
Chromium	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:05	1
Cobalt	**0.0015**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:05	1
Lead	<0.00050	^+	0.00050		mg/L		11/23/22 08:54	11/28/22 21:05	1
Lithium	**0.012**		0.010		mg/L		11/23/22 08:54	11/30/22 16:29	1
Molybdenum	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:05	1
Selenium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 21:05	1
Thallium	<0.0020		0.0020		mg/L		11/23/22 08:54	11/28/22 21:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/21/22 10:20	11/22/22 07:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1100**		10		mg/L			11/15/22 23:38	1
Chloride (SM 4500 Cl- E)	**300**		20		mg/L			11/23/22 10:30	10
Fluoride (SM 4500 F C)	**0.54**		0.10		mg/L			11/16/22 11:39	1
Sulfate (SM 4500 SO4 E)	**140**		50		mg/L			11/29/22 09:15	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: MW-04

Date Collected: 11/09/22 10:25
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-2

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		11/23/22 08:54	11/28/22 21:09	1
Arsenic	**0.0021**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:09	1
Barium	**0.11**		0.0025		mg/L		11/23/22 08:54	11/28/22 21:09	1
Beryllium	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:09	1
Boron	**0.34**		0.050		mg/L		11/23/22 08:54	11/28/22 21:09	1
Cadmium	<0.00050		0.00050		mg/L		11/23/22 08:54	11/28/22 21:09	1
Calcium	**120**		0.20		mg/L		11/23/22 08:54	11/28/22 21:09	1
Chromium	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:09	1
Cobalt	**0.0030**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:09	1
Lead	<0.00050	^+	0.00050		mg/L		11/23/22 08:54	11/28/22 21:09	1
Lithium	**0.012**		0.010		mg/L		11/23/22 08:54	11/30/22 16:32	1
Molybdenum	**0.0056**		0.0050		mg/L		11/23/22 08:54	11/28/22 21:09	1
Selenium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 21:09	1
Thallium	<0.0020		0.0020		mg/L		11/23/22 08:54	11/28/22 21:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/21/22 10:20	11/22/22 07:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**940**		10		mg/L			11/16/22 03:53	1
Chloride (SM 4500 Cl- E)	**240**		20		mg/L			11/23/22 10:31	10
Fluoride (SM 4500 F C)	**0.61**		0.10		mg/L			11/16/22 11:42	1
Sulfate (SM 4500 SO4 E)	**150**		50		mg/L			11/29/22 09:15	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: MW-05

Date Collected: 11/09/22 12:11
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-3

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		11/23/22 08:54	11/28/22 21:12	1
Arsenic	**0.0021**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:12	1
Barium	**0.068**		0.0025		mg/L		11/23/22 08:54	11/28/22 21:12	1
Beryllium	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:12	1
Boron	**0.39**		0.050		mg/L		11/23/22 08:54	11/28/22 21:12	1
Cadmium	<0.00050		0.00050		mg/L		11/23/22 08:54	11/28/22 21:12	1
Calcium	**120**		0.20		mg/L		11/23/22 08:54	11/28/22 21:12	1
Chromium	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:12	1
Cobalt	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:12	1
Lead	**0.00093**		0.00050		mg/L		11/23/22 08:54	11/30/22 16:36	1
Lithium	**0.015**		0.010		mg/L		11/23/22 08:54	11/30/22 16:36	1
Molybdenum	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:12	1
Selenium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 21:12	1
Thallium	<0.0020		0.0020		mg/L		11/23/22 08:54	11/28/22 21:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/21/22 10:20	11/22/22 07:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**910**		10		mg/L			11/16/22 04:00	1
Chloride (SM 4500 Cl- E)	**230**		20		mg/L			11/23/22 10:31	10
Fluoride (SM 4500 F C)	**0.42**		0.10		mg/L			11/16/22 11:45	1
Sulfate (SM 4500 SO4 E)	**120**		50		mg/L			11/29/22 09:16	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: MW-10

Date Collected: 11/09/22 14:48
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-4

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		11/23/22 08:54	11/28/22 21:16	1
Arsenic	**0.0014**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:16	1
Barium	**0.043**		0.0025		mg/L		11/23/22 08:54	11/28/22 21:16	1
Beryllium	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:16	1
Boron	**0.32**		0.050		mg/L		11/23/22 08:54	11/28/22 21:16	1
Cadmium	<0.00050		0.00050		mg/L		11/23/22 08:54	11/28/22 21:16	1
Calcium	**110**		0.20		mg/L		11/23/22 08:54	11/28/22 21:16	1
Chromium	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:16	1
Cobalt	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:16	1
Lead	<0.00050	^+	0.00050		mg/L		11/23/22 08:54	11/28/22 21:16	1
Lithium	**0.010**		0.010		mg/L		11/23/22 08:54	11/30/22 16:39	1
Molybdenum	**0.0055**		0.0050		mg/L		11/23/22 08:54	11/28/22 21:16	1
Selenium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 21:16	1
Thallium	<0.0020		0.0020		mg/L		11/23/22 08:54	11/28/22 21:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/21/22 10:20	11/22/22 07:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**880**		10		mg/L			11/16/22 04:06	1
Chloride (SM 4500 Cl- E)	**240**		20		mg/L			11/23/22 10:48	10
Fluoride (SM 4500 F C)	**0.57**		0.10		mg/L			11/16/22 11:48	1
Sulfate (SM 4500 SO4 E)	**150**		50		mg/L			11/29/22 09:04	10

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: Duplicate

Date Collected: 11/09/22 00:00
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-5

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		11/23/22 08:54	11/28/22 21:19	1
Arsenic	**0.0021**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:19	1
Barium	**0.11**		0.0025		mg/L		11/23/22 08:54	11/28/22 21:19	1
Beryllium	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 21:19	1
Boron	**0.33**		0.050		mg/L		11/23/22 08:54	11/28/22 21:19	1
Cadmium	<0.00050		0.00050		mg/L		11/23/22 08:54	11/28/22 21:19	1
Calcium	**120**		0.20		mg/L		11/23/22 08:54	11/28/22 21:19	1
Chromium	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 21:19	1
Cobalt	**0.0031**		0.0010		mg/L		11/23/22 08:54	11/28/22 21:19	1
Lead	<0.00050	^+	0.00050		mg/L		11/23/22 08:54	11/28/22 21:19	1
Lithium	**0.012**		0.010		mg/L		11/23/22 08:54	11/30/22 16:43	1
Molybdenum	**0.0054**		0.0050		mg/L		11/23/22 08:54	11/28/22 21:19	1
Selenium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 21:19	1
Thallium	<0.0020		0.0020		mg/L		11/23/22 08:54	11/28/22 21:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/21/22 10:20	11/22/22 08:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**960**		10		mg/L			11/16/22 04:08	1
Chloride (SM 4500 Cl- E)	**240**		20		mg/L			11/23/22 10:48	10
Fluoride (SM 4500 F C)	**0.61**		0.10		mg/L			11/16/22 11:51	1
Sulfate (SM 4500 SO4 E)	**150**		50		mg/L			11/29/22 09:04	10

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) 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

Metals

Prep Batch: 686309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total/NA	Water	7470A	
500-225174-2	MW-04	Total/NA	Water	7470A	
500-225174-3	MW-05	Total/NA	Water	7470A	
500-225174-4	MW-10	Total/NA	Water	7470A	
500-225174-5	Duplicate	Total/NA	Water	7470A	
MB 500-686309/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-686309/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-225174-2 MS	MW-04	Total/NA	Water	7470A	
500-225174-2 MSD	MW-04	Total/NA	Water	7470A	
500-225174-2 DU	MW-04	Total/NA	Water	7470A	

Analysis Batch: 686552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total/NA	Water	7470A	686309
500-225174-2	MW-04	Total/NA	Water	7470A	686309
500-225174-3	MW-05	Total/NA	Water	7470A	686309
500-225174-4	MW-10	Total/NA	Water	7470A	686309
500-225174-5	Duplicate	Total/NA	Water	7470A	686309
MB 500-686309/12-A	Method Blank	Total/NA	Water	7470A	686309
LCS 500-686309/13-A	Lab Control Sample	Total/NA	Water	7470A	686309
500-225174-2 MS	MW-04	Total/NA	Water	7470A	686309
500-225174-2 MSD	MW-04	Total/NA	Water	7470A	686309
500-225174-2 DU	MW-04	Total/NA	Water	7470A	686309

Prep Batch: 686689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total Recoverable	Water	3005A	
500-225174-2	MW-04	Total Recoverable	Water	3005A	
500-225174-3	MW-05	Total Recoverable	Water	3005A	
500-225174-4	MW-10	Total Recoverable	Water	3005A	
500-225174-5	Duplicate	Total Recoverable	Water	3005A	
MB 500-686689/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-686689/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 687308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total Recoverable	Water	6020A	686689
500-225174-2	MW-04	Total Recoverable	Water	6020A	686689
500-225174-3	MW-05	Total Recoverable	Water	6020A	686689
500-225174-4	MW-10	Total Recoverable	Water	6020A	686689
500-225174-5	Duplicate	Total Recoverable	Water	6020A	686689
MB 500-686689/1-A	Method Blank	Total Recoverable	Water	6020A	686689
LCS 500-686689/2-A	Lab Control Sample	Total Recoverable	Water	6020A	686689

Analysis Batch: 687746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total Recoverable	Water	6020A	686689
500-225174-2	MW-04	Total Recoverable	Water	6020A	686689
500-225174-3	MW-05	Total Recoverable	Water	6020A	686689
500-225174-4	MW-10	Total Recoverable	Water	6020A	686689
500-225174-5	Duplicate	Total Recoverable	Water	6020A	686689

General Chemistry

Analysis Batch: 600791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total/NA	Water	SM 4500 F C	
500-225174-2	MW-04	Total/NA	Water	SM 4500 F C	
500-225174-3	MW-05	Total/NA	Water	SM 4500 F C	
500-225174-4	MW-10	Total/NA	Water	SM 4500 F C	
500-225174-5	Duplicate	Total/NA	Water	SM 4500 F C	
MB 400-600791/33	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-600791/36	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 400-600791/35	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 685172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total/NA	Water	SM 2540C	
MB 500-685172/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-685172/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 685176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-2	MW-04	Total/NA	Water	SM 2540C	
500-225174-3	MW-05	Total/NA	Water	SM 2540C	
500-225174-4	MW-10	Total/NA	Water	SM 2540C	
500-225174-5	Duplicate	Total/NA	Water	SM 2540C	
MB 500-685176/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-685176/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-225174-2 MS	MW-04	Total/NA	Water	SM 2540C	
500-225174-2 DU	MW-04	Total/NA	Water	SM 2540C	
500-225174-3 DU	MW-05	Total/NA	Water	SM 2540C	

Analysis Batch: 686775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-225174-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-225174-3	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-225174-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-225174-5	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-686775/52	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-686775/85	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-686775/53	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-686775/86	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 687313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-225174-1	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-225174-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-225174-3	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-225174-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-225174-5	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-687313/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-687313/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-686689/1-A
Matrix: Water
Analysis Batch: 687308

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 686689

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/23/22 08:54	11/28/22 20:09	1
Arsenic	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 20:09	1
Barium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 20:09	1
Beryllium	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 20:09	1
Boron	<0.050		0.050		mg/L		11/23/22 08:54	11/28/22 20:09	1
Cadmium	<0.00050		0.00050		mg/L		11/23/22 08:54	11/28/22 20:09	1
Calcium	<0.20		0.20		mg/L		11/23/22 08:54	11/28/22 20:09	1
Chromium	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 20:09	1
Cobalt	<0.0010		0.0010		mg/L		11/23/22 08:54	11/28/22 20:09	1
Lead	<0.00050	^+	0.00050		mg/L		11/23/22 08:54	11/28/22 20:09	1
Lithium	<0.010		0.010		mg/L		11/23/22 08:54	11/28/22 20:09	1
Molybdenum	<0.0050		0.0050		mg/L		11/23/22 08:54	11/28/22 20:09	1
Selenium	<0.0025		0.0025		mg/L		11/23/22 08:54	11/28/22 20:09	1
Thallium	<0.0020		0.0020		mg/L		11/23/22 08:54	11/28/22 20:09	1

Lab Sample ID: LCS 500-686689/2-A
Matrix: Water
Analysis Batch: 687308

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 686689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.486		mg/L		97	80 - 120
Arsenic	0.100	0.0877		mg/L		88	80 - 120
Barium	2.00	1.99		mg/L		100	80 - 120
Beryllium	0.0500	0.0445		mg/L		89	80 - 120
Boron	1.00	0.961		mg/L		96	80 - 120
Cadmium	0.0500	0.0460		mg/L		92	80 - 120
Calcium	10.0	9.56		mg/L		96	80 - 120
Chromium	0.200	0.196		mg/L		98	80 - 120
Cobalt	0.500	0.509		mg/L		102	80 - 120
Lead	0.100	0.104	^+	mg/L		104	80 - 120
Lithium	0.500	0.492		mg/L		98	80 - 120
Molybdenum	1.00	0.924		mg/L		92	80 - 120
Selenium	0.100	0.0912		mg/L		91	80 - 120
Thallium	0.100	0.104		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-686309/12-A
Matrix: Water
Analysis Batch: 686552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 686309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/21/22 10:20	11/22/22 07:02	1

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

Lab Sample ID: LCS 500-686309/13-A
Matrix: Water
Analysis Batch: 686552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 686309

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00198	0.00177		mg/L		89	80 - 120		

Lab Sample ID: 500-225174-2 MS
Matrix: Water
Analysis Batch: 686552

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 686309

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	<0.00020		0.00100	0.000972		mg/L		97	75 - 125		

Lab Sample ID: 500-225174-2 MSD
Matrix: Water
Analysis Batch: 686552

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 686309

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000964		mg/L		96	75 - 125	1	20

Lab Sample ID: 500-225174-2 DU
Matrix: Water
Analysis Batch: 686552

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 686309

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 500-685172/1
Matrix: Water
Analysis Batch: 685172

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			11/15/22 22:39	1

Lab Sample ID: LCS 500-685172/2
Matrix: Water
Analysis Batch: 685172

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

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

Lab Sample ID: MB 500-685176/1
Matrix: Water
Analysis Batch: 685176

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			11/16/22 03:48	1

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

Lab Sample ID: LCS 500-685176/2
Matrix: Water
Analysis Batch: 685176

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: 500-225174-2 MS
Matrix: Water
Analysis Batch: 685176

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids	940		250	1170		mg/L		92	75 - 125		

Lab Sample ID: 500-225174-2 DU
Matrix: Water
Analysis Batch: 685176

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	940			974		mg/L				4	5

Lab Sample ID: 500-225174-3 DU
Matrix: Water
Analysis Batch: 685176

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	910			904		mg/L				0.4	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-686775/52
Matrix: Water
Analysis Batch: 686775

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			11/23/22 10:23	1

Lab Sample ID: MB 500-686775/85
Matrix: Water
Analysis Batch: 686775

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			11/23/22 10:46	1

Lab Sample ID: LCS 500-686775/53
Matrix: Water
Analysis Batch: 686775

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		

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

Lab Sample ID: LCS 500-686775/86
Matrix: Water
Analysis Batch: 686775

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			20.0	20.4		mg/L		102	85 - 115		

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-600791/33
Matrix: Water
Analysis Batch: 600791

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			11/16/22 12:40	1

Lab Sample ID: LCS 400-600791/36
Matrix: Water
Analysis Batch: 600791

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			5.00	5.19		mg/L		104	90 - 110		

Lab Sample ID: MRL 400-600791/35
Matrix: Water
Analysis Batch: 600791

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			0.100	0.105		mg/L		105			

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-687313/16
Matrix: Water
Analysis Batch: 687313

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			11/29/22 08:58	1

Lab Sample ID: LCS 500-687313/17
Matrix: Water
Analysis Batch: 687313

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 TestAmerica, Chicago
2417 Bond Street
University Park IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: IAN JOHN HOWIESON	Lab PM: Mockler Diana J	Carrier Tracking No(s):	COC No: 500-91207-40679 1
Client Contact: Mitchel Dolan	Phone: 630-325-1300	E-Mail: Diana Mockler@Eurofinset com	State of Origin:	Page: Page 1 of 1
Company: KPRG and Associates, Inc	PWSID:			Job #: 500-225174

Address: 14665 West Lisbon Road, Suite 1A	Due Date Requested	Analysis Requested
City: Brookfield	TAT Requested (days)	
State, Zip: WI 53005	Compliance Project: Δ Yes Δ No	
Phone: 262-781-0475	PO #: 4502042860	
Email: mitchell@kprginc.com	WO #:	
Project Name: Quarterly MWG Joliet #29 CCR	Project #: 50011568	
Site: Illinois	SSOW#:	

500-225174 COC

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	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time (CT)	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)	6010C - Lithium	6020A - *13 elemenets, 7470A - Mercury	2540C - TDS	4500FC - Fluoride	SM00CLE - Chloride	SM4500SO4 - Sulfate	903- Rad 226	904 - Rad 228	Rad Combined	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N	N	N	N	D	D	D		
1 MW-03	11-9-22	09:19	G	W	N	N	X	X	X	X	X	X	X	X		5	Metals List Sb,As,Ba,Be,B,Cd,Ca,Cr,Co,Pb,Mo,Se,Tl
2 MW-04	11-9-22	10:25	G	W	N	N	X	X	X	X	X	X	X	X		5	
3 MW-05	11-9-22	12:11	G	W	N	N	X	X	X	X	X	X	X	X		5	
4 MW-10	11-9-22	14:48	G	W	N	N	X	X	X	X	X	X	X	X		5	
5 DUPLICATE	11-9-22	—	G	W	N	N	X	X	X	X	X	X	X	X		5	
6 TRIP BLANK	—	—	—	W	X	X	2									2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

Deliverable Requested I II III, IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment: 11/10/22
Relinquished by:	Date/Time: 11-10-22 08:45	Company: KPRG	Received by: SS Date/Time: 11/9/22 0845 Company: EBTA
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: (2.3-1.3) (2.2-3.2)

12/1/2022

Ver: 01/16/2019

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-167316.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Diana.Mockler@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): NELAP - Illinois		Job #: 500-225174-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/5/2022			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #29 CCR	Project #: 50011568			
Site: NRG Midwest Generation LSQ Joliet#29 CCR	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_F_C	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-03 (500-225174-1)	11/9/22	09:19 Central		Water			X	1	
MW-04 (500-225174-2)	11/9/22	10:25 Central		Water			X	1	
MW-05 (500-225174-3)	11/9/22	12:11 Central		Water			X	1	
MW-10 (500-225174-4)	11/9/22	14:48 Central		Water			X	1	
Duplicate (500-225174-5)	11/9/22	Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon out 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 complicance to Eurofins Chicago.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Melissa Carlson	11/10/22 1600	EETA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11-11-22 8:56	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4-6°C CRS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PE# 1G069-434 MTW EXP 08/23

ORIGIN ID:JOTA (708) 534-5200
SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST

UNIVERSITY PARK, IL 60484
UNITED STATES US

SHIP DATE: 10NOV22
ACTWGT: 22.00 LB MAN
CAD: 033264/CAFE3616

BILL SENDER

TO SAMPLE RECEIVING
EUROFINS-PENSACOLA
3355 MCLEMORE DR.

PENSACOLA FL 32514
(850) 474-1001
REF: 225074 104 174 SH

4.4
IR8
PD

577C6/E4AB/432A

FedEx
Express

E

J222022032801uv

FRI - 11 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 6180 7191 9563

XH PNSA

32514
FL-US BFM

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-225174-1

Login Number: 225174
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	1.3,3.2
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: Midwest Generation EME LLC

Job Number: 500-225174-1

Login Number: 225174
List Number: 3
Creator: Whitley, Adrian

List Source: Eurofins Pensacola
List Creation: 11/12/22 08:32 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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	4.4°C IR8
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.	N/A	
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: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: MW-03
Date Collected: 11/09/22 09:19
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687308	FXG	EET CHI	11/28/22 21:05
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687746	FXG	EET CHI	11/30/22 16:29
Total/NA	Prep	7470A			686309	MJG	EET CHI	11/21/22 10:20 - 11/21/22 12:20 [1]
Total/NA	Analysis	7470A		1	686552	MJG	EET CHI	11/22/22 07:17
Total/NA	Analysis	SM 2540C		1	685172	CLB	EET CHI	11/15/22 23:38
Total/NA	Analysis	SM 4500 Cl- E		10	686775	LP	EET CHI	11/23/22 10:30
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 11:39
Total/NA	Analysis	SM 4500 SO4 E		10	687313	LP	EET CHI	11/29/22 09:15

Client Sample ID: MW-04
Date Collected: 11/09/22 10:25
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687308	FXG	EET CHI	11/28/22 21:09
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687746	FXG	EET CHI	11/30/22 16:32
Total/NA	Prep	7470A			686309	MJG	EET CHI	11/21/22 10:20 - 11/21/22 12:20 [1]
Total/NA	Analysis	7470A		1	686552	MJG	EET CHI	11/22/22 07:19
Total/NA	Analysis	SM 2540C		1	685176	CLB	EET CHI	11/16/22 03:53
Total/NA	Analysis	SM 4500 Cl- E		10	686775	LP	EET CHI	11/23/22 10:31
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 11:42
Total/NA	Analysis	SM 4500 SO4 E		10	687313	LP	EET CHI	11/29/22 09:15

Client Sample ID: MW-05
Date Collected: 11/09/22 12:11
Date Received: 11/10/22 08:45

Lab Sample ID: 500-225174-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687308	FXG	EET CHI	11/28/22 21:12
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687746	FXG	EET CHI	11/30/22 16:36
Total/NA	Prep	7470A			686309	MJG	EET CHI	11/21/22 10:20 - 11/21/22 12:20 [1]
Total/NA	Analysis	7470A		1	686552	MJG	EET CHI	11/22/22 07:54
Total/NA	Analysis	SM 2540C		1	685176	CLB	EET CHI	11/16/22 04:00
Total/NA	Analysis	SM 4500 Cl- E		10	686775	LP	EET CHI	11/23/22 10:31
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 11:45
Total/NA	Analysis	SM 4500 SO4 E		10	687313	LP	EET CHI	11/29/22 09:16

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR

Job ID: 500-225174-1

Client Sample ID: MW-10

Lab Sample ID: 500-225174-4

Date Collected: 11/09/22 14:48

Matrix: Water

Date Received: 11/10/22 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687308	FXG	EET CHI	11/28/22 21:16
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687746	FXG	EET CHI	11/30/22 16:39
Total/NA	Prep	7470A			686309	MJG	EET CHI	11/21/22 10:20 - 11/21/22 12:20 [1]
Total/NA	Analysis	7470A		1	686552	MJG	EET CHI	11/22/22 07:56
Total/NA	Analysis	SM 2540C		1	685176	CLB	EET CHI	11/16/22 04:06
Total/NA	Analysis	SM 4500 Cl- E		10	686775	LP	EET CHI	11/23/22 10:48
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 11:48
Total/NA	Analysis	SM 4500 SO4 E		10	687313	LP	EET CHI	11/29/22 09:04

Client Sample ID: Duplicate

Lab Sample ID: 500-225174-5

Date Collected: 11/09/22 00:00

Matrix: Water

Date Received: 11/10/22 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687308	FXG	EET CHI	11/28/22 21:19
Total Recoverable	Prep	3005A			686689	BDE	EET CHI	11/23/22 08:54 - 11/23/22 09:24 [1]
Total Recoverable	Analysis	6020A		1	687746	FXG	EET CHI	11/30/22 16:43
Total/NA	Prep	7470A			686309	MJG	EET CHI	11/21/22 10:20 - 11/21/22 12:20 [1]
Total/NA	Analysis	7470A		1	686552	MJG	EET CHI	11/22/22 08:09
Total/NA	Analysis	SM 2540C		1	685176	CLB	EET CHI	11/16/22 04:08
Total/NA	Analysis	SM 4500 Cl- E		10	686775	LP	EET CHI	11/23/22 10:48
Total/NA	Analysis	SM 4500 F C		1	600791	JP	EET PEN	11/16/22 11:51
Total/NA	Analysis	SM 4500 SO4 E		10	687313	LP	EET CHI	11/29/22 09:04

[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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: John Niedzwiecki
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Generated 1/13/2023 7:50:04 AM

JOB DESCRIPTION

Joliet #29 CCR MW-10 Resample (Fluoride)

JOB NUMBER

500-227415-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

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

Authorization

Generated
1/13/2023 7:50:04 AM

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

Table of Contents

Case Narrative

Client: Midwest Generation EME LLC
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

Job ID: 500-227415-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-227415-1

Comments
No additional comments.

Receipt
The sample was received on 12/28/2022 3:18 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 2.5º C.

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
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	EET CHI

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

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

Sample Summary

Client: Midwest Generation EME LLC
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-227415-1	MW-10	Water	12/20/22 12:35	12/28/22 15:18

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

Client Sample ID: MW-10
Date Collected: 12/20/22 12:35
Date Received: 12/28/22 15:18

Lab Sample ID: 500-227415-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (MCAWW 300.0)	0.68		0.20		mg/L			01/07/23 16:30	1

Definitions/Glossary

Client: Midwest Generation EME LLC
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

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: Midwest Generation EME LLC
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

General Chemistry

Analysis Batch: 693172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-227415-1	MW-10	Total/NA	Water	300.0	
MB 500-693172/3	Method Blank	Total/NA	Water	300.0	
LCS 500-693172/4	Lab Control Sample	Total/NA	Water	300.0	

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

Job ID: 500-227415-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-693172/3
Matrix: Water
Analysis Batch: 693172

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.20		0.20		mg/L			01/07/23 15:27	1

Lab Sample ID: LCS 500-693172/4
Matrix: Water
Analysis Batch: 693172

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			1.00	0.987		mg/L		99	90 - 110		

650-523 [illegible] Diana Mockler@Eurofinset.com

Page 1 of 1

Job #: 500-22741-5

Analysis Requested

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	Z other (specify)

Other:

Due Date Requested:

TAT Requested (days):

Compliance Project: Δ Yes Δ No

PO #: 4502041043

WO #: MW 12/29

Project #: ~~50011569~~ 50011568

SSOW#:

Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0, 904.0, Radium Combined	6010C - Lithium, 6020A - Metals (13 elements), 7470A - Mercury	2540C TDS, 4500FC - Fluoride	SM4500ClE Chloride, SM4500SO4E - Sulfate	Fluoride 4500FC	Total Number of Containers	Special Instructions/Note:
Preservation Code:				N	N	D	D	N	N			
12-20-22	1235	G	W	N						X		*Metals List Sb,As,Ba,Be,B,Cd,Ca,Cr,Co,Pb,Mo,SeTl

Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

specify)

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.

	Date	Time	Method of Shipment:
~			

	Date/Time	Company	Received by	Date/Time	Company
	12/21/22 1030	KRG		12/21/22 1030	EMT
	12/21/22		Nicole Kozen	12/21/22 1808	KRG
	12/28/22 1403	KRG		12/28/22 1403	EETA

Cooler Temperature(s) °C and Other Remarks: 3.5 - 2.5

12/29/22 [illegible]

Ver: 01/16/2019

1/13/2023

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Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-227415-1

Login Number: 227415
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	2.5
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
Job ID: 500-227415-1
Project/Site: Joliet #29 CCR MW-10 Resample (Fluoride)

Client Sample ID: MW-10
Date Collected: 12/20/22 12:35
Date Received: 12/28/22 15:18

Lab Sample ID: 500-227415-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		1	693172	MM	EET CHI	01/07/23 16:30

Laboratory References:

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