



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**FEDERAL CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and
CORRECTIVE ACTION REPORT - 2021**

**Midwest Generation, LLC
Waukegan Station
401 E. Greenwood Avenue
Waukegan, Illinois**

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January 31, 2022

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OVERVIEW

Groundwater monitoring requirements in accordance with the Federal Register, Environmental Protection Agency, 40 CFR Parts 257.94, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule dated April 17, 2015 (CCR Rule) and subsequent amendments, have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Waukegan Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for the West and East Ash Ponds. The CCR monitoring well network around these ponds consists of eight monitoring wells (MW-01 through MW-04, MW-09, MW-11, MW-14 and MW-16). Wells MW-09, MW-11 and MW-14 are upgradient wells as shown on Figure 1.

This overview of the 2021 groundwater monitoring period is provided in accordance with revised 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 statistically significant increases (SSIs) above established background for Appendix III detection monitoring constituents were noted during this monitoring period:
 - MW-01 – boron, pH.
 - MW-02 – boron, pH.
 - MW-03 – boron, sulfate (August and November).
 - MW-04 – boron.
 - MW-16 – boron, sulfate.

These constituent SSIs have been addressed previously under Alternate Source Demonstrations (ASDs) with determination being made that the SSIs are not associated with a release from the regulated units.

- Section 257.90(e)(6)(iv) – The subject units are not under assessment monitoring.
- Section 257.90(e)(6)(v) – The subject units are not under corrective action.

- Section 257.90(e)(6)(vi) – The subject units are 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) have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Waukegan Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for both the West and East Ash Ponds. The CCR monitoring well network around these ponds consists of eight monitoring wells (MW-01 through MW-04, MW-09, MW-11, MW-14 and MW-16). Wells MW-09, MW-11 and MW-14 are upgradient wells.

This annual report covers the work performed relative to CCR groundwater monitoring for the calendar year 2021. It does not duplicate information or activities previously reported for 2020. 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 summarizes conclusions and recommendations for the station going forward.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network around the ash ponds at this facility consists of eight wells (MW-01, MW-02, MW-03, MW-04, MW-09, MW-11, MW-14 and MW-16) 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). All wells were found in good condition.

All groundwater samples were collected using the low-flow sampling technique from dedicated pumps. The samples were not filtered prior to analysis to provide for total metals concentrations as opposed to dissolved metals concentrations. One duplicate sample was collected from a randomly selected monitoring well per sampling event for quality assurance purposes. The duplicate samples from the May, August and November 2021 sampling events were from monitoring well MW-16.

2.2 Groundwater Flow Evaluation

Water level data measurements were obtained from monitoring wells during each round of groundwater sampling. A complete round of water levels was collected prior to initiating sampling, and the water level data are summarized in Table 1. It is noted that water levels were also concurrently measured at other monitoring well locations in the area that are not part of the CCR monitoring network. The full set of water levels were used to generate a groundwater flow map for each sampling event. These maps are provided as Figures 2, 3 and 4. A review of the maps indicates a consistent east to southeasterly groundwater flow direction beneath the ash ponds. In accordance with general groundwater sampling requirements under Section 257.93(c), Table 2 provides a summary of the flow direction and an estimated rate of groundwater flow for each sampling event. The flow rate was calculated using the following equation:

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

V_s is seepage velocity (distance/time)

K is hydraulic conductivity (distance/time)

dh/dl is hydraulic gradient (unitless)

n_e is effective porosity (unitless)

Through 2020 the average hydraulic conductivity of 4.04×10^{-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 completed for the East and West Ash Ponds. The Patrick Engineering slug test data were re-evaluated as part of the modeling exercise and a modified hydraulic geometric mean of 1.79×10^{-3} ft/sec was estimated and subsequently used in Table 2 for 2021 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 2021 is provided in Table 3, in accordance with 257.90(e)(3). Federal CCR assessment monitoring requires groundwater sampling on a semi-annual basis. It is noted that due to the introduction of the Illinois State CCR Rule, groundwater sampling of the full list of Appendix III and Appendix IV parameters was performed on a quarterly basis beginning in second quarter 2021.

3.2 Data Summary

The analytical data from the detection monitoring groundwater sampling for Appendix III parameters are provided in Table 4. Groundwater sampling was completed for Appendix III in 2021 in accordance with 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. Table 4 also includes calculated Prediction Limits (PLs) established in the initial CCR Groundwater Monitoring Statistical Evaluation Summary dated January 2018 for data comparison purposes. The downgradient intrawell prediction limits were established for the parameters which were part of the Alternate Source Demonstrations (see 2018 and 2019 CCR Compliance Reports). It is noted that sulfate concentrations at wells MW-01, MW-02 and MW-04 have declined to below calculated PLs where in the previous 2020 sampling events the concentrations were above calculated PLs indicating a downward trend in those wells. The TDS concentration at well MW-16 also continues to indicate a downward trend as concentrations were below PLs for all 2021 sampling events. All duplicate values were within an acceptable range. The analytical data packages from the detection monitoring events are provided in Appendix A.

3.3 Current Status

The station remains in detection monitoring.

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The detection monitoring requirements in accordance with the CCR Rule have been successfully met. At this time, it is recommended that the station stay in detection monitoring in accordance with Section 257.94.

5.0 REFERENCES

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

FIGURES



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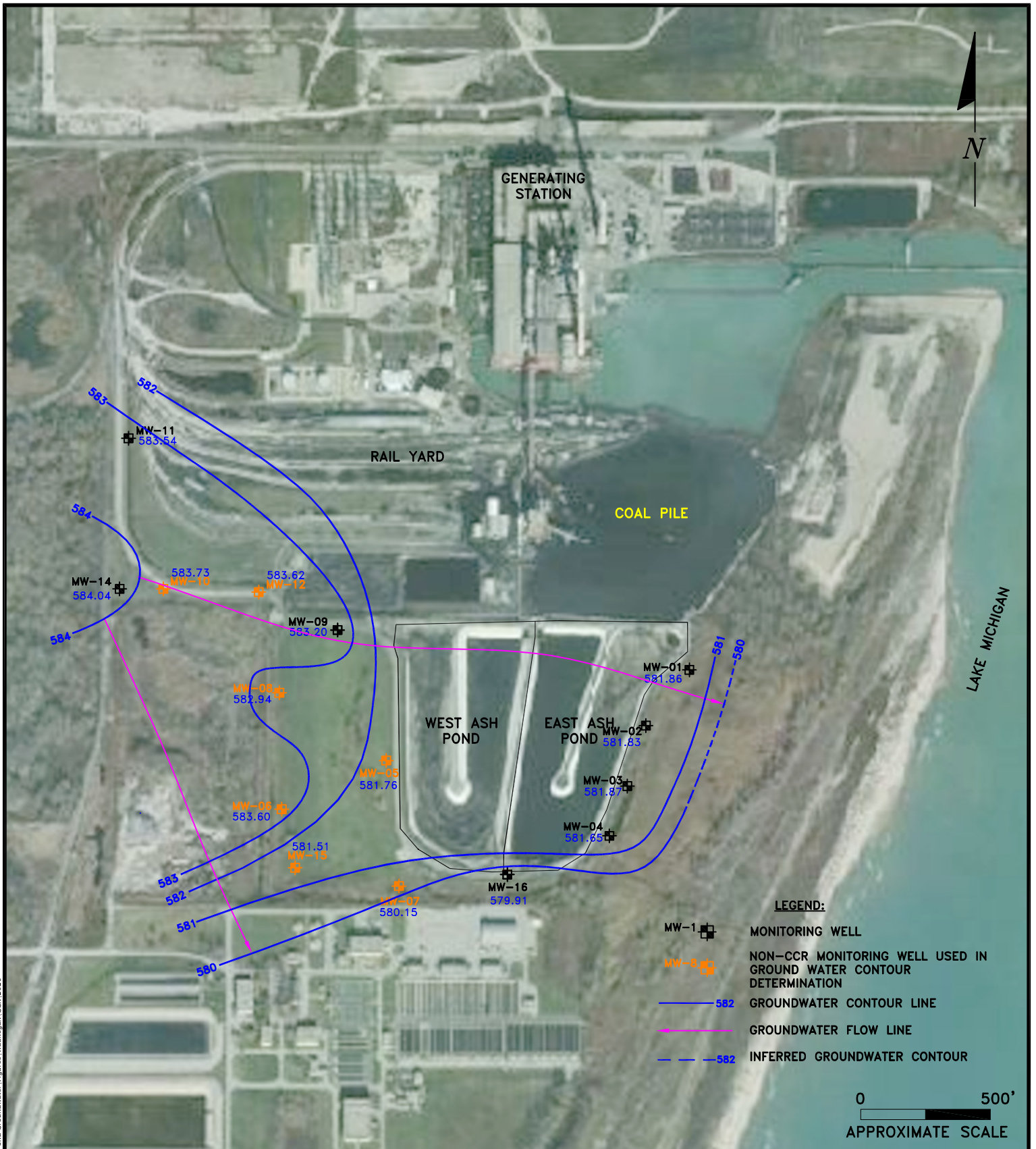
CCR MONITORING WELL SITE MAP

**WAUKEGAN STATION
WAUKEGAN, ILLINOIS**

Scale: 1" = 550' Date: January 2, 2018

KPRG Project No. 12313.2

FIGURE 1



LEGEND:

- MW-1 MONITORING WELL
- MW-8 NON-CCR MONITORING WELL USED IN GROUND WATER CONTOUR DETERMINATION
- 582 — GROUNDWATER CONTOUR LINE
- — GROUNDWATER FLOW LINE
- - - 582 - - - INFERRED GROUNDWATER CONTOUR

0 500'
APPROXIMATE SCALE

Common Projects/Midwest Generation/12313 Ash Pond Groundwater Figures/Waukegan CCR/2020

ENVIRONMENTAL CONSULTATION & REMEDIATION		GROUNDWATER CONTOUR MAP 05/2021	
		WAUKEGAN STATION WAUKEGAN, ILLINOIS	
KPRG and Associates, inc.		Scale: 1" = 500' Date: June 11, 2021	
14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478		KPRG Project No. 12313.2	
414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593		FIGURE 2	



Common Projects, Midwest Generation, 12313 Ash Pond Groundwater Figures, Waukegan CCR, 2020

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GROUNDWATER CONTOUR MAP 08/2021

WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500' Date: October 07, 2021

KPRG Project No. 12313.2

FIGURE 3



Common Projects, Midwest Generation, 12313 Ash Pond Groundwater Figures, Waukegan CCR, 2020

ENVIRONMENTAL CONSULTATION & REMEDIATION		GROUNDWATER CONTOUR MAP 11/2021	
		WAUKEGAN STATION WAUKEGAN, ILLINOIS	
KPRG and Associates, inc.		Scale: 1" = 500' Date: January 04, 2022	
14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478		KPRG Project No. 12313.2	
414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593		FIGURE 4	

TABLES

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-01	11/2/2015	603.12	20.75	582.37
	2/29/2016	603.12	20.71	582.41
	5/2/2016	603.12	20.89	582.23
	8/23/2016	603.12	22.01	581.11
	12/2/2016	603.62	22.27	581.35
	2/21/2017	603.62	22.42	581.20
	5/15/2017	603.62	20.52	583.10
	7/5/2017	603.62	21.81	581.81
	9/11/2017	603.62	21.47	582.15
	11/27/2017	603.62	21.82	581.80
	5/29/2018	603.62	19.43	584.19
	11/5/2018	603.62	20.45	583.17
	5/14/2019	603.62	19.81	583.81
	11/18/2019	603.62	19.89	583.73
	4/21/2020	603.62	20.81	582.81
	11/17/2020	603.62	21.51	582.11
	3/1/2021	603.62	21.19	582.43
	3/30/2021	603.62	21.34	582.28
	5/5/2021	603.62	21.76	581.86
	5/27/2021	603.62	21.78	581.84
6/18/2021	603.62	21.90	581.72	
7/8/2021	603.62	21.75	581.87	
8/18/2021	603.62	21.82	581.80	
9/29/2021	603.62	22.22	581.40	
10/12/2021	603.62	21.65	581.97	
11/3/2021	603.62	21.45	582.17	
12/14/2021	603.62	21.52	582.10	
MW-02	11/2/2015	603.04	20.71	582.33
	2/29/2016	603.04	20.59	582.45
	5/2/2016	603.04	20.82	582.22
	8/23/2016	603.04	22.04	581.00
	12/2/2016	603.39	22.13	581.26
	2/21/2017	603.39	22.24	581.15
	5/15/2017	603.39	20.25	583.14
	7/5/2017	603.39	21.59	581.80
	9/11/2017	603.39	21.21	582.18
	11/27/2017	603.39	21.63	581.76
	5/29/2018	603.39	19.12	584.27
	11/5/2018	603.39	20.19	583.20
	5/14/2019	603.39	19.55	583.84
	11/18/2019	603.39	19.60	583.79
	4/21/2020	603.39	20.57	582.82
	11/17/2020	603.39	21.32	582.07
	3/1/2021	603.39	21.04	582.35
	3/30/2021	603.39	21.13	582.26
	5/5/2021	603.39	21.56	581.83
	5/27/2021	603.39	21.60	581.79
6/18/2021	603.39	21.65	581.74	
7/8/2021	603.39	21.48	581.91	
8/18/2021	603.39	21.56	581.83	
9/29/2021	603.39	22.00	581.39	
10/12/2021	603.39	21.50	581.89	
11/3/2021	603.39	21.26	582.13	
12/14/2021	603.39	21.40	581.99	

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-03	11/2/2015	602.91	20.37	582.54
	2/29/2016	602.91	20.43	582.48
	5/2/2016	602.91	20.66	582.25
	8/23/2016	602.91	22.12	580.79
	12/2/2016	603.70	22.52	581.18
	2/21/2017	603.70	22.64	581.06
	5/15/2017	603.70	20.55	583.15
	7/5/2017	603.70	21.92	581.78
	9/11/2017	603.70	21.55	582.15
	11/28/2017	603.70	21.96	581.74
	5/29/2018	603.70	19.40	584.30
	11/5/2018	603.70	20.48	583.22
	5/14/2019	603.70	19.80	583.90
	11/18/2019	603.70	20.05	583.65
	4/21/2020	603.70	20.82	582.88
	11/17/2020	603.70	21.60	582.10
	3/1/2021	603.70	21.30	582.40
	3/30/2021	603.70	21.40	582.30
	5/5/2021	603.70	21.83	581.87
	5/27/2021	603.70	21.85	581.85
6/18/2021	603.70	21.91	581.79	
7/8/2021	603.70	21.71	581.99	
8/18/2021	603.70	21.80	581.90	
9/29/2021	603.70	22.30	581.40	
10/12/2021	603.70	21.70	582.00	
11/3/2021	603.70	21.53	582.17	
12/14/2021	603.70	21.60	582.10	
MW-04	11/2/2015	603.19	20.83	582.36
	2/29/2016	603.19	20.70	582.49
	5/2/2016	603.19	20.94	582.25
	8/23/2016	603.19	22.69	580.50
	12/2/2016	603.17	22.18	580.99
	2/21/2017	603.17	22.36	580.81
	5/15/2017	603.17	20.04	583.13
	7/5/2017	603.17	21.46	581.71
	9/11/2017	603.17	21.05	582.12
	11/28/2017	603.17	21.54	581.63
	5/30/2018	603.17	18.88	584.29
	11/6/2018	603.17	19.96	583.21
	5/14/2019	603.17	19.35	583.82
	11/18/2019	603.17	19.36	583.81
	4/21/2020	603.17	20.40	582.77
	11/18/2020	603.17	21.23	581.94
	3/1/2021	603.17	20.95	582.22
	3/30/2021	603.17	21.02	582.15
	5/5/2021	603.17	21.52	581.65
	5/27/2021	603.17	21.55	581.62
6/18/2021	603.17	21.62	581.55	
7/8/2021	603.17	21.45	581.72	
8/18/2021	603.17	21.49	581.68	
9/29/2021	603.17	22.08	581.09	
10/12/2021	603.17	21.35	581.82	
11/3/2021	603.17	21.15	582.02	
12/14/2021	603.17	21.40	581.77	

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-09	11/2/2015	594.00	9.78	584.22
	2/29/2016	594.00	9.89	584.11
	5/2/2016	594.00	9.59	584.41
	8/23/2016	594.00	10.58	583.42
	12/2/2016	594.00	10.27	583.73
	2/21/2017	594.00	10.21	583.79
	5/15/2017	594.00	9.57	584.43
	7/6/2017	594.00	9.81	584.19
	9/11/2017	594.00	10.25	583.75
	11/29/2017	594.00	9.98	584.02
	5/31/2018	594.00	9.38	584.62
	11/6/2018	594.00	9.52	584.48
	5/14/2019	594.00	9.50	584.50
	11/18/2019	594.00	9.62	584.38
	4/21/2020	594.00	9.84	584.16
	11/18/2020	594.00	10.83	583.17
	3/1/2021	594.00	9.90	584.10
	3/30/2021	594.00	10.46	583.54
	5/5/2021	594.00	10.80	583.20
	5/27/2021	594.00	10.92	583.08
6/18/2021	594.00	11.25	582.75	
7/8/2021	594.00	10.82	583.18	
8/18/2021	594.00	10.99	583.01	
9/29/2021	594.00	11.82	582.18	
10/12/2021	594.00	10.94	583.06	
11/3/2021	594.00	10.53	583.47	
12/14/2021	594.00	10.60	583.40	
MW-11	11/2/2015	590.35	5.27	585.08
	2/29/2016	590.35	5.54	584.81
	5/2/2016	590.35	5.17	585.18
	8/23/2016	590.35	6.04	584.31
	12/2/2016	590.35	5.86	584.49
	2/21/2017	590.35	5.87	584.48
	5/15/2017	590.35	5.33	585.02
	7/6/2017	590.35	5.62	584.73
	9/11/2017	590.35	5.61	584.74
	11/30/2017	590.35	5.68	584.67
	5/31/2018	590.35	5.41	584.94
	11/6/2018	590.35	5.29	585.06
	5/14/2019	590.35	5.55	584.80
	11/18/2019	590.35	5.80	584.55
	4/21/2020	590.35	5.85	584.50
	11/19/2020	590.35	6.66	583.69
	3/1/2021	590.35	5.46	584.89
	3/30/2021	590.35	6.54	583.81
	5/5/2021	590.35	6.81	583.54
	5/27/2021	590.35	6.76	583.59
6/18/2021	590.35	6.75	583.60	
7/8/2021	590.35	6.72	583.63	
8/18/2021	590.35	6.90	583.45	
9/29/2021	590.35	7.40	582.95	
10/12/2021	590.35	6.77	583.58	
11/3/2021	590.35	6.61	583.74	
12/14/2021	590.35	6.61	583.74	

Table 1. Groundwater Elevations - Midwest Generation, LLC, Waukegan Station, Waukegan, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-14	11/2/2015	590.24	5.17	585.07
	2/29/2016	590.24	5.01	585.23
	5/2/2016	590.24	4.49	585.75
	8/23/2016	590.24	6.07	584.17
	12/2/2016	590.24	5.49	584.75
	2/21/2017	590.24	5.33	584.91
	5/15/2017	590.24	4.67	585.57
	7/6/2017	590.24	5.27	584.97
	9/11/2017	590.24	5.78	584.46
	11/30/2017	590.24	5.19	585.05
	6/1/2018	590.24	4.45	585.79
	11/6/2018	590.24	4.32	585.92
	5/14/2019	590.24	4.20	586.04
	11/18/2019	590.24	4.75	585.49
	4/21/2020	590.24	5.00	585.24
	11/19/2020	590.24	5.98	584.26
	3/1/2021	590.24	4.55	585.69
	3/30/2021	590.24	5.60	584.64
	5/5/2021	590.24	6.20	584.04
	5/27/2021	590.24	6.32	583.92
6/18/2021	590.24	6.60	583.64	
7/8/2021	590.24	6.15	584.09	
8/18/2021	590.24	6.45	583.79	
9/29/2021	590.24	7.14	583.10	
10/12/2021	590.24	6.72	583.52	
11/3/2021	590.24	5.66	584.58	
12/14/2021	590.24	5.74	584.50	
MW-16	11/2/2015	607.41	25.13	582.28
	2/29/2016	607.41	24.91	582.50
	5/2/2016	607.41	25.23	582.18
	8/23/2016	607.41	28.33	579.08
	12/2/2016	607.41	28.22	579.19
	2/21/2017	607.41	27.71	579.70
	5/15/2017	607.41	23.99	583.42
	7/6/2017	607.41	27.03	580.38
	9/11/2017	607.41	26.74	580.67
	11/27/2017	607.41	27.49	579.92
	6/1/2018	607.41	23.22	584.19
	11/6/2018	607.41	23.65	583.76
	5/14/2019	607.41	23.40	584.01
	11/18/2019	607.41	23.60	583.81
	4/21/2020	607.41	25.26	582.15
	11/17/2020	607.41	27.50	579.91
	3/1/2021	607.41	27.25	580.16
	3/30/2021	607.41	26.96	580.45
	5/5/2021	607.41	27.50	579.91
	5/27/2021	607.41	27.35	580.06
6/18/2021	607.41	27.12	580.29	
7/8/2021	607.41	26.41	581.00	
8/18/2021	607.41	26.92	580.49	
9/29/2021	607.41	27.45	579.96	
10/12/2021	607.41	26.99	580.42	
11/3/2021	607.41	27.04	580.37	
12/14/2021	607.41	27.60	579.81	

MSL - Mean Sea Level
 TOC - Top of Casing

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

DATE	Groundwater Flow Direction	Kavg (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
11/2/2015	Southeast	4.040E-03	0.0018	0.35	1.75
2/29/2016	Southeast	4.040E-03	0.0013	0.35	1.30
5/2/2016	Southeast	4.040E-03	0.0015	0.35	1.45
8/23/2016	East-Southeast	4.040E-03	0.0017	0.35	1.65
12/2/2016	East-Southeast	4.040E-03	0.0021	0.35	2.09
2/21/2017	East-Southeast	4.040E-03	0.0022	0.35	2.14
5/15/2017	East-Southeast	4.040E-03	0.0008	0.35	0.80
7/5/2017	East-Southeast	4.040E-03	0.0049	0.35	4.84
9/11/2017	East-Southeast	4.040E-03	0.0018	0.35	1.75
11/27/2017	East-Southeast	4.040E-03	0.0024	0.35	2.39
5/29/2018	East-Southeast	4.040E-03	0.0008	0.35	0.80
11/5/2018	East-Southeast	4.040E-03	0.0014	0.35	1.40
5/14/2019	East-Southeast	4.040E-03	0.0014	0.35	1.40
11/18/2019	East-Southeast	4.040E-03	0.0013	0.35	1.30
4/21/2020	East-Southeast	4.040E-03	0.0013	0.35	1.30
11/17/2020	East-Southeast	4.040E-03	0.0017	0.35	1.70
5/5/2021	East-Southeast	1.790E-03	0.0017	0.35	0.75
8/18/2021	East-Southeast	1.790E-03	0.0024	0.35	1.06
11/3/2021	East-Southeast	1.790E-03	0.0020	0.35	0.88

* Kavg - Pre-2021 K values from Hydrologic Assessment Report, Patrick Engineering, February 2011. 2021 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.

Table 3. CCR Groundwater Sample Collection Summary for 2021 - Waukegan Generating Station

Well ID	Number of Groundwater Sampling Events	Dates of Groundwater Sampling Events	Detection Monitoring (D) versus Assessment Monitoring (A)
MW-09 (Background)	3	5/6/2021	D
		8/19/2021	D
		11/4/2021	D
MW-11 (Background)	3	5/6/2021	D
		8/19/2021	D
		11/4/2021	D
MW-14 (Background)	3	5/6/2021	D
		8/19/2021	D
		11/4/2021	D
MW-01 (Downgradient)	3	5/5/2021	D
		8/18/2021	D
		11/3/2021	D
MW-02 (Downgradient)	3	5/5/2021	D
		8/18/2021	D
		11/3/2021	D
MW-03 (Downgradient)	3	5/5/2021	D
		8/18/2021	D
		11/3/2021	D
MW-04 (Downgradient)	3	5/5/2021	D
		8/18/2021	D
		11/3/2021	D
MW-16 (Downgradient)	3	5/6/2021	D
		8/18/2021	D
		11/4/2021	D

Table 4. Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-09 up-gradient	11/4/2015	13	210	450	0.14	6.60	370	1700
	3/2/2016	35	380	720	0.11	7.02	970	2800
	5/3/2016	16	310	620	0.12	7.02	740	2500
	8/25/2016	4.5	130	270	0.21	7.13	190	1100
	12/8/2016	15	200	330	0.18	7.01	270	1300
	2/23/2017	14	190	290	0.12	7.68	320	1300
	5/16/2017	27	160	67	0.29	8.15	420	970
	7/6/2017	21	220	430	0.13	7.18	610	1800
	Pred. Limit*	43.9	449	963	0.33	8.53-5.92	1214	3499
	9/13/2017	21	250	420	0.14	7.17	520	1800
	11/29/2017	26	200	390	0.13	7.05	390	1600
	5/31/2018	32	200	29	0.1	6.85	490	1000
	11/6/2018	30	170	23	0.11	7.33	290	930
	5/15/2019	26	120	260	0.13	7.53	31	1000
	11/19/2019	22	160	17	0.16	8.04	300	750
	4/22/2020	22	140	9.2	0.18	7.81	360	700
	11/18/2020	28	250	290	0.18	7.43	420	1700
5/6/2021	31	170	35	0.12	7.51	420	910	
8/19/2021	7.2	150	170	0.13	7.01	210	350	
11/4/2021	10	150	160	0.24	7.07	180	980	
MW-11 up-gradient	11/5/2015	5.2	140	240	0.13	6.51	190	1100
	3/2/2016	4.0	170	240	0.1	7.16	210	1200
	5/5/2016	5.0	140	280	0.11	7.17	160	1000
	8/26/2016	3.5	180	240	0.13	6.97	110	1100
	12/7/2016	3.0	170	270	0.12	7.06	110	1200
	2/24/2017	2.4	180	220	4.9	6.61	170	1200
	5/18/2017	1.8	160	170	0.12	7.42	120	1000
	7/6/2017	2.4	160	190	0.14	7.33	130	1100
	Pred. Limit*	6.83	206	333	4.9	7.91-6.14	255	1341
	9/13/2017	1.9	140	150	0.26	7.16	96	870
	11/30/2017	2.2	170	200	0.14	6.99	93	1100
	5/31/2018	1.5	210	160	0.1	6.74	130	1100
	11/6/2018	2.3	170	150	0.12	7.21	78	990
	5/15/2019	3.2	120	260	0.13	7.14	31	1000
	11/19/2019	4.1	130	200	0.15	7.51	29	860
	4/22/2020	3.2	110	150	0.15	7.16	47	740
	11/19/2020	2.3	140	130	0.2	7.00	28	800
5/6/2021	2.4	130	120	0.15	7.13	45	770	
8/19/2021	1.3	140	88	0.16	6.95	45	730	
11/4/2021	1.6	130	100	0.16	6.80	45	740	
MW-14 up-gradient	11/5/2015	1.4	150	190	0.19	6.78	140	1000
	3/2/2016	0.93	150	110	0.17	7.24	150	870
	5/5/2016	1.2	170	120	0.18	7.17	190	980
	8/26/2016	1.5	200	210	0.12	7.00	190	1300
	12/7/2016	0.95	240	340	0.25	6.81	120	1100
	2/23/2017	0.73	150	99	0.19	6.88	110	730
	5/18/2017	0.81	120	130	0.3	7.62	70	590
	7/6/2017	1.2	190	180	0.13	7.29	190	1300
	Pred. Limit*	1.85	274	389	0.35	7.89-6.31	266	1676
	9/13/2017	2.3	180	190	0.15	7.20	270	1200
	11/30/2017	0.85	170	130	0.19	7.33	99	940
	6/1/2018	0.54	100	57	0.28	6.89	42	410
	11/6/2018	0.98	160	110	0.24	7.36	53	610
	5/15/2019	0.69	110	190	0.23	7.25	35	780
	11/19/2019	0.62	130	68	0.16	7.58	21	630
	4/22/2020	0.43	120	20	0.21	7.16	9.5	500
	11/19/2020	0.71	130	40	0.2	7.09	20	520
5/6/2021	0.45	130	41	0.19	7.16	28	390	
8/19/2021	0.48	130	32	0.13	6.96	34	450	
11/4/2021	0.66	120	37	0.21	7.15	72	580	
MW-01 down-gradient	11/2/2015	1.8	64	71	0.46	10.93	310	560
	3/1/2016	V	58	63	0.26	11.13	270	570
	5/4/2016	2.0	45	60	0.3	11.09	210	490
	8/23/2016	2.0	42	60	0.26	10.49	240	550
	12/5/2016	2.2	55	65	0.34	10.46	180	560
	2/21/2017	2.2	50	61	0.29	11.30	250	540
	5/15/2017	2.1	52	59	0.37	10.69	330	570
	7/5/2017	2.3	44	51	0.34	10.83	320	570
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	Pred. Limit*	2.52	NC	NC	NC	11.7-10.03	411.6	NC
	9/14/2017	2.4	71	47	0.24	10.45	430	770
	11/27/2017	2.7	84	43	0.11	7.85	330	840
	5/29/2018	2.4	54	58	0.33	8.44	350	610
	11/5/2018	2.0	38	43	0.25	8.70	210	630
	5/14/2019	2.2	56	45	0.18	9.85	250	560
	11/19/2019	2.3	38	39	0.24	10.58	240	530
	4/21/2020	2.8	55	25	0.22	9.40	240	470
11/17/2020	3.3	120	95	0.14	7.97	250	640	
5/5/2021	<	5.0	66	0.22	9.00	180	430	
8/18/2021		2.7	72	0.17	8.31	170	430	
11/3/2021		2.9	67	0.22	8.56	180	440	

Notes: All units are in mg/l except pH is in standard units.
 Pred. Limit - Prediction Limit
Italics Date - Detection Monitoring and resample after statistical background establishment.
 * - Intrawell Prediction Limit. All others are interwell comparisons.
 ** - Based on pooled background from MW-11/MW-14. All others based on MW-14 as background.
 V - Serial dilution exceeds the control limits.
 R - Resampling event
 NA - Not analyzed. No confirmation resample required.

Bold - Potential statistically significant increase.
BOLD - Potential statistically significant increase relative to intrawell Prediction Limit.
BOLD - Above both interwell and intrawell Prediction Limits.
 NC - Not Calculated.

Table 4. Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-02 down-gradient	11/2/2015	3.0	32	47	0.78	8.27	230	460
	3/1/2016	4.1	39	47	1.3	8.57	220	510
	5/4/2016	3.3	34	51	1.5	8.19	180	440
	8/23/2016	3.1	42	59	1.3	7.52	250	500
	12/5/2016	3.1	28	56	1.0	8.62	160	430
	2/21/2017	3.3	31	52	0.76	8.75	190	420
	5/15/2017	3.6	85	48	0.64	8.33	320	640
	7/5/2017	4.2	100	52	0.42	7.92	300	710
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	Pred. Limit*	4.73	NC	NC	NC	9.38-7.16	386.6	NC
	9/14/2017	2.5	87	54	0.44	8.19	340	780
	11/27/2017	3.4	69	57	0.62	7.34	200	570
	5/29/2018	4.5	160	43	0.40	6.85	420	990
	11/5/2018	3.1	77	59	0.61	8.06	180	610
	5/14/2019	2.9	47	49	1.0	8.30	140	430
	11/19/2019	4.7	140	43	0.7	7.37	270	900
	4/21/2020	3.4	86	48	1.0	8.02	250	580
11/17/2020	4.0	79	20	0.8	7.67	310	610	
5/5/2021	4.6	70	37	0.7	8.39	190	420	
8/18/2021	4.1	84	39	0.5	7.92	190	480	
11/3/2021	4.2	59	43	0.63	7.78	170	410	
MW-03 down-gradient	11/2/2015	2.3	72	87	0.51	9.26	270	570
	3/1/2016	2.9	61	70	0.33	7.33	220	530
	5/4/2016	2.4	42	74	0.56	7.25	170	470
	8/24/2016	2.0	70	59	0.3	9.13	200	430
	12/5/2016	2.4	57	60	0.41	7.62	120	440
	2/21/2017	2.2	56	65	0.33	7.56	180	460
	5/16/2017	3.9	110	61	0.27	7.90	320	820
	7/5/2017	3.0	60	60	0.28	7.46	200	470
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	Pred. Limit*	4.31	NC	NC	NC	9.26-7.25	378.9	NC
	9/14/2017	2.1	86	57	0.26	7.53	260	680
	11/28/2017	2.6	69	63	0.56	6.96	120	500
	5/29/2018	2.4	67	61	0.38	6.84	190	480
	11/5/2018	2.4	54	54	0.5	8.99	150	500
	5/14/2019	4.2	86	17	0.59	7.21	270	660
	11/19/2019	4.2	130	15	0.25	7.47	300	740
	4/21/2020	3.8	120	23	0.29	6.87	270	660
11/17/2020	3.8	120	53	0.29	7.05	240	650	
5/5/2021	3.3	110	43	0.23	7.18	210	550	
8/18/2021	3	150	46	0.17	6.90	250	690	
11/3/2021	3.2	120	40	0.18	7.05	250	600	
MW-04 down-gradient	11/3/2015	1.8	66	62	0.51	6.68	240	480
	3/1/2016	2.0	58	51	0.5	7.17	170	450
	5/4/2016	1.6	44	49	0.61	6.92	140	340
	8/24/2016	2.0	46	58	0.56	7.01	120	370
	12/5/2016	3.4	200	60	0.21	7.40	300	1000
	2/22/2017	2.4	150	41	0.17	7.44	290	850
	5/16/2017	2.5	170	29	0.32	7.94	400	970
	7/5/2017	3.6	200	51	0.29	7.09	520	1100
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	Pred. Limit*	4.42	NC	NC	NC	8.26-6.15	647.3	NC
	9/14/2017	2.5	180	45	0.28	7.04	480	1100
	11/28/2017	2.3	110	32	0.28	7.04	130	560
	5/30/2018	3.0	150	21	0.38	6.57	200	700
	11/6/2018	2.5	150	58	0.37	6.83	240	900
	5/14/2019	3.3	100	58	0.64	7.30	200	730
	11/19/2019	2.9	120	44	0.75	7.27	270	680
	4/21/2020	2.9	100	33	0.9	7.18	290	670
11/18/2020	3.1	100	18	1.1	7.17	250	690	
5/5/2021	3.3	75	17	0.91	7.46	190	530	
8/18/2021	3.0	92	39	0.8	7.45	200	590	
11/3/2021	2.7	67	50	0.99	7.36	150	550	
MW-16 down-gradient	11/3/2015	4.1	230	87	0.43	6.24	610	1400
	3/2/2016	3.1	360	130	0.35	6.76	990	1700
	5/2/2016	4.9	250	150	0.49	6.99	620	1600
	8/24/2016	3.6	130	53	0.71	7.00	330	830
	12/5/2016	3.8	160	52	0.51	7.03	280	920
	2/24/2017	6.5	200	67	0.2	5.76	570	1100
	5/16/2017	2.6	340	130	0.15	7.57	760	1700
	7/6/2017	9.5	190	70	0.57	7.35	480	1100
	Pred. Limit	1.83	227**	345**	4.9**	7.70-6.43**	233**	1461**
	Pred. Limit*	10.94	456.4	NC	NC	8.45-5.23	1206	2257
	9/13/2017	2.8	190	55	0.61	7.33	460	970
	11/27/2017	4.2	140	58	0.71	7.16	270	760
	6/1/2018	3	380	130	0.32	6.53	890	1900
	8/22/2018 (R)	NA	190	NA	NA	NA	NA	1200
	11/6/2018	3.9	380	150	0.39	6.78	550	1900
	12/4/2018 (R)	NA	320	NA	NA	NA	NA	1600
	5/15/2019	2.9	400	65	0.31	6.67	990	2000
11/19/2019	7.2	410	480	0.46	6.89	680	3100	
12/27/2019 (R)	NS	NS	NS	NS	NS	NS	2800	
4/21/2020	7.7	420	200	0.5	6.79	1100	2400	
11/17/2020	3.2	130	54	0.71	7.22	320	990	
5/6/2021	3.1	120	55	0.68	7.33	300	740	
8/18/2021	3.1	140	55	0.66	7.19	320	790	
11/4/2021	3	120	48	0.68	7.32	290	810	

Notes: All units are in mg/l except pH is in standard units.
Pred. Limit - Prediction Limit
Italics Date - Detection Monitoring and resample after statistical background establishment.
 * - Intrawell Prediction Limit. All others are interwell comparisons.
 ** - Based on pooled background from MW-11/MW-14. All others based on MW-14 as background.
 V - Serial dilution exceeds the control limits.
 R - Resampling event
 NA - Not analyzed. No confirmation resample required.

Bold - Potential statistically significant increase.
BOLD - Potential statistically significant increase relative to intrawell Prediction Limit.
BOLD - Above both interwell and intrawell Prediction Limits.
 NC - Not Calculated.

Appendix A
Analytical Data Packages from 2021 Detection Monitoring

ANALYTICAL REPORT

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

Laboratory Job ID: 500-198722-1
Client Project/Site: Waukegan CCR

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

Attn: Richard Gnat



Authorized for release by:
5/26/2021 3:38:45 PM

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

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



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Case Narrative

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

Job ID: 500-198722-1

Job ID: 500-198722-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-198722-1**

Comments

No additional comments.

Receipt

The samples were received on 5/6/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.9° C, 2.0° C, 2.1° C and 2.1° 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.

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Detection Summary

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

Job ID: 500-198722-1

Client Sample ID: MW-01

Lab Sample ID: 500-198722-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.025		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.040		0.0025		mg/L	1		6020A	Total Recoverable
Calcium	66		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.016		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	430		10		mg/L	1		SM 2540C	Total/NA
Chloride	67		4.0		mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.22		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	180		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-02

Lab Sample ID: 500-198722-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0080		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.030		0.0025		mg/L	1		6020A	Total Recoverable
Boron	4.6		1.0		mg/L	20		6020A	Total Recoverable
Calcium	70		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.023		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	420		10		mg/L	1		SM 2540C	Total/NA
Chloride	37		4.0		mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.72		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-03

Lab Sample ID: 500-198722-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0066		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.035		0.0025		mg/L	1		6020A	Total Recoverable
Boron	3.3		0.50		mg/L	10		6020A	Total Recoverable
Calcium	110		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.016		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.0065		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	550		10		mg/L	1		SM 2540C	Total/NA
Chloride	43		4.0		mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	210		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-04

Lab Sample ID: 500-198722-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0069		0.0010		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

Euofins TestAmerica, Chicago

Detection Summary

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

Job ID: 500-198722-1

Client Sample ID: MW-04 (Continued)

Lab Sample ID: 500-198722-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.032		0.0025		mg/L	1		6020A	Total Recoverable
Boron	3.4		1.0		mg/L	20		6020A	Total Recoverable
Calcium	75		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.056		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.0041		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	530		10		mg/L	1		SM 2540C	Total/NA
Chloride	17		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.91		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-09

Lab Sample ID: 500-198722-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.040		0.010		mg/L	1		6010C	Total Recoverable
Barium	0.0075		0.0025		mg/L	1		6020A	Total Recoverable
Boron	31		0.50		mg/L	10		6020A	Total Recoverable
Calcium	170		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.47		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.023		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	910		10		mg/L	1		SM 2540C	Total/NA
Chloride	35		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	420		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 500-198722-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.038		0.010		mg/L	1		6010C	Total Recoverable
Arsenic	0.44		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.044		0.0025		mg/L	1		6020A	Total Recoverable
Boron	2.4		0.50		mg/L	10		6020A	Total Recoverable
Calcium	130		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	770		10		mg/L	1		SM 2540C	Total/NA
Chloride	120		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	45		15		mg/L	3		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

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

Job ID: 500-198722-1

Client Sample ID: MW-14

Lab Sample ID: 500-198722-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.015		0.010		mg/L	1		6010C	Total Recoverable
Arsenic	0.91		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.050		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.45		0.050		mg/L	1		6020A	Total Recoverable
Calcium	130		0.20		mg/L	1		6020A	Total Recoverable
Chromium	0.037		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	390		10		mg/L	1		SM 2540C	Total/NA
Chloride	41		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	28		5.0		mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-16

Lab Sample ID: 500-198722-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.014		0.010		mg/L	1		6010C	Total Recoverable
Barium	0.024		0.0025		mg/L	1		6020A	Total Recoverable
Boron	3.1		0.50		mg/L	10		6020A	Total Recoverable
Calcium	120		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.019		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	740		10		mg/L	1		SM 2540C	Total/NA
Chloride	55		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.68		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	300		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 500-198722-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.014		0.010		mg/L	1		6010C	Total Recoverable
Barium	0.025		0.0025		mg/L	1		6020A	Total Recoverable
Boron	3.2		0.50		mg/L	10		6020A	Total Recoverable
Calcium	120		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.019		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	730		10		mg/L	1		SM 2540C	Total/NA
Chloride	55		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.67		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	300		50		mg/L	10		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

Euofins TestAmerica, Chicago

Method Summary

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

Job ID: 500-198722-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
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 TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

Job ID: 500-198722-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-198722-1	MW-01	Water	05/05/21 15:58	05/06/21 09:50	
500-198722-2	MW-02	Water	05/05/21 15:01	05/06/21 09:50	
500-198722-3	MW-03	Water	05/05/21 13:56	05/06/21 09:50	
500-198722-4	MW-04	Water	05/05/21 13:00	05/06/21 09:50	
500-198722-5	MW-09	Water	05/06/21 12:32	05/07/21 10:00	
500-198722-6	MW-11	Water	05/06/21 14:20	05/07/21 10:00	
500-198722-7	MW-14	Water	05/06/21 15:22	05/07/21 10:00	
500-198722-8	MW-16	Water	05/06/21 10:23	05/07/21 10:00	
500-198722-9	Duplicate	Water	05/06/21 00:00	05/07/21 10:00	

Client Sample Results

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

Job ID: 500-198722-1

Client Sample ID: MW-01
Date Collected: 05/05/21 15:58
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/14/21 08:26	05/14/21 16:15	1

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		05/14/21 08:26	05/15/21 02:26	1
Arsenic	0.025		0.0010		mg/L		05/14/21 08:26	05/15/21 02:26	1
Barium	0.040		0.0025		mg/L		05/14/21 08:26	05/15/21 02:26	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:26	1
Boron	<5.0		5.0		mg/L		05/14/21 08:26	05/17/21 13:19	100
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:26	1
Calcium	66		0.20		mg/L		05/14/21 08:26	05/15/21 02:26	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:26	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:26	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:26	1
Molybdenum	0.016		0.0050		mg/L		05/14/21 08:26	05/15/21 02:26	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 02:26	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 07:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			05/07/21 06:38	1
Chloride	67		4.0		mg/L			05/26/21 14:04	2
Fluoride	0.22		0.10		mg/L			05/18/21 05:21	1
Sulfate	180		50		mg/L			05/17/21 13:22	10

Client Sample ID: MW-02
Date Collected: 05/05/21 15:01
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-2
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/14/21 08:26	05/14/21 16:18	1

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		05/14/21 08:26	05/15/21 02:29	1
Arsenic	0.0080		0.0010		mg/L		05/14/21 08:26	05/15/21 02:29	1
Barium	0.030		0.0025		mg/L		05/14/21 08:26	05/15/21 02:29	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:29	1
Boron	4.6		1.0		mg/L		05/14/21 08:26	05/17/21 13:23	20
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:29	1
Calcium	70		0.20		mg/L		05/14/21 08:26	05/15/21 02:29	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:29	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:29	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:29	1
Molybdenum	0.023		0.0050		mg/L		05/14/21 08:26	05/15/21 02:29	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 02:29	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-198722-1

Client Sample ID: MW-02

Lab Sample ID: 500-198722-2

Date Collected: 05/05/21 15:01

Matrix: Water

Date Received: 05/06/21 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 07:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	420		10		mg/L			05/12/21 02:14	1
Chloride	37		4.0		mg/L			05/26/21 14:05	2
Fluoride	0.72		0.10		mg/L			05/18/21 05:42	1
Sulfate	190		50		mg/L			05/17/21 13:23	10

Client Sample ID: MW-03

Lab Sample ID: 500-198722-3

Date Collected: 05/05/21 13:56

Matrix: Water

Date Received: 05/06/21 09:50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/14/21 08:26	05/14/21 16:22	1

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		05/14/21 08:26	05/15/21 02:33	1
Arsenic	0.0066		0.0010		mg/L		05/14/21 08:26	05/15/21 02:33	1
Barium	0.035		0.0025		mg/L		05/14/21 08:26	05/15/21 02:33	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:33	1
Boron	3.3		0.50		mg/L		05/14/21 08:26	05/17/21 13:26	10
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:33	1
Calcium	110		0.20		mg/L		05/14/21 08:26	05/15/21 02:33	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:33	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:33	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:33	1
Molybdenum	0.016		0.0050		mg/L		05/14/21 08:26	05/15/21 02:33	1
Selenium	0.0065		0.0025		mg/L		05/14/21 08:26	05/15/21 02:33	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:33	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 07:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	550		10		mg/L			05/12/21 02:17	1
Chloride	43		4.0		mg/L			05/26/21 14:05	2
Fluoride	0.23		0.10		mg/L			05/18/21 05:48	1
Sulfate	210		50		mg/L			05/17/21 13:24	10

Client Sample Results

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

Job ID: 500-198722-1

Client Sample ID: MW-04
Date Collected: 05/05/21 13:00
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-4
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/14/21 08:26	05/14/21 16:25	1

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		05/14/21 08:26	05/15/21 02:36	1
Arsenic	0.0069		0.0010		mg/L		05/14/21 08:26	05/15/21 02:36	1
Barium	0.032		0.0025		mg/L		05/14/21 08:26	05/15/21 02:36	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:36	1
Boron	3.4		1.0		mg/L		05/14/21 08:26	05/17/21 13:30	20
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:36	1
Calcium	75		0.20		mg/L		05/14/21 08:26	05/15/21 02:36	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:36	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:36	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:36	1
Molybdenum	0.056		0.0050		mg/L		05/14/21 08:26	05/15/21 02:36	1
Selenium	0.0041		0.0025		mg/L		05/14/21 08:26	05/15/21 02:36	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:36	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 07:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10		mg/L			05/12/21 02:19	1
Chloride	17		2.0		mg/L			05/26/21 14:04	1
Fluoride	0.91		0.10		mg/L			05/18/21 05:52	1
Sulfate	190		50		mg/L			05/17/21 13:24	10

Client Sample ID: MW-09
Date Collected: 05/06/21 12:32
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-5
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.040		0.010		mg/L		05/14/21 08:26	05/14/21 16:29	1

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		05/14/21 08:26	05/15/21 02:47	1
Arsenic	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:47	1
Barium	0.0075		0.0025		mg/L		05/14/21 08:26	05/15/21 02:47	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:47	1
Boron	31		0.50		mg/L		05/14/21 08:26	05/17/21 13:33	10
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:47	1
Calcium	170		0.20		mg/L		05/14/21 08:26	05/15/21 02:47	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:47	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:47	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:47	1
Molybdenum	0.47		0.0050		mg/L		05/14/21 08:26	05/15/21 02:47	1
Selenium	0.023		0.0025		mg/L		05/14/21 08:26	05/15/21 02:47	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-198722-1

Client Sample ID: MW-09

Lab Sample ID: 500-198722-5

Date Collected: 05/06/21 12:32

Matrix: Water

Date Received: 05/07/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 07:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	910		10		mg/L			05/12/21 02:22	1
Chloride	35		2.0		mg/L			05/26/21 14:05	1
Fluoride	0.12		0.10		mg/L			05/18/21 05:59	1
Sulfate	420		50		mg/L			05/17/21 13:24	10

Client Sample ID: MW-11

Lab Sample ID: 500-198722-6

Date Collected: 05/06/21 14:20

Matrix: Water

Date Received: 05/07/21 10:00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		05/14/21 08:26	05/14/21 16:40	1

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		05/14/21 08:26	05/15/21 02:50	1
Arsenic	0.44		0.0010		mg/L		05/14/21 08:26	05/15/21 02:50	1
Barium	0.044		0.0025		mg/L		05/14/21 08:26	05/15/21 02:50	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:50	1
Boron	2.4		0.50		mg/L		05/14/21 08:26	05/17/21 13:38	10
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:50	1
Calcium	130		0.20		mg/L		05/14/21 08:26	05/15/21 02:50	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:50	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:50	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:50	1
Molybdenum	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:50	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 02:50	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:50	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 08:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	770		10		mg/L			05/12/21 02:25	1
Chloride	120		10		mg/L			05/26/21 14:06	5
Fluoride	0.15		0.10		mg/L			05/18/21 06:05	1
Sulfate	45		15		mg/L			05/17/21 13:25	3

Client Sample Results

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

Job ID: 500-198722-1

Client Sample ID: MW-14
Date Collected: 05/06/21 15:22
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.015		0.010		mg/L		05/14/21 08:26	05/14/21 16:43	1

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		05/14/21 08:26	05/15/21 02:54	1
Arsenic	0.91		0.0010		mg/L		05/14/21 08:26	05/15/21 02:54	1
Barium	0.050		0.0025		mg/L		05/14/21 08:26	05/15/21 02:54	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:54	1
Boron	0.45		0.050		mg/L		05/14/21 08:26	05/17/21 13:41	1
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:54	1
Calcium	130		0.20		mg/L		05/14/21 08:26	05/15/21 02:54	1
Chromium	0.037		0.0050		mg/L		05/14/21 08:26	05/15/21 02:54	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:54	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:54	1
Molybdenum	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:54	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 02:54	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 08:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	390		10		mg/L			05/12/21 02:27	1
Chloride	41		10		mg/L			05/26/21 14:06	5
Fluoride	0.19		0.10		mg/L			05/18/21 06:26	1
Sulfate	28		5.0		mg/L			05/17/21 15:01	1

Client Sample ID: MW-16
Date Collected: 05/06/21 10:23
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.014		0.010		mg/L		05/14/21 08:26	05/14/21 16:47	1

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		05/14/21 08:26	05/15/21 02:57	1
Arsenic	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:57	1
Barium	0.024		0.0025		mg/L		05/14/21 08:26	05/15/21 02:57	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:57	1
Boron	3.1		0.50		mg/L		05/14/21 08:26	05/17/21 13:45	10
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:57	1
Calcium	120		0.20		mg/L		05/14/21 08:26	05/15/21 02:57	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 02:57	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 02:57	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 02:57	1
Molybdenum	0.019		0.0050		mg/L		05/14/21 08:26	05/15/21 02:57	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 02:57	1

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Client Sample Results

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

Job ID: 500-198722-1

Client Sample ID: MW-16

Lab Sample ID: 500-198722-8

Date Collected: 05/06/21 10:23

Matrix: Water

Date Received: 05/07/21 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 02:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 08:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			05/12/21 02:30	1
Chloride	55		10		mg/L			05/26/21 14:06	5
Fluoride	0.68		0.10		mg/L			05/18/21 06:33	1
Sulfate	300		50		mg/L			05/17/21 13:26	10

Client Sample ID: Duplicate

Lab Sample ID: 500-198722-9

Date Collected: 05/06/21 00:00

Matrix: Water

Date Received: 05/07/21 10:00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.014		0.010		mg/L		05/14/21 08:26	05/14/21 16:51	1

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		05/14/21 08:26	05/15/21 03:01	1
Arsenic	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 03:01	1
Barium	0.025		0.0025		mg/L		05/14/21 08:26	05/15/21 03:01	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 03:01	1
Boron	3.2		0.50		mg/L		05/14/21 08:26	05/17/21 13:48	10
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 03:01	1
Calcium	120		0.20		mg/L		05/14/21 08:26	05/15/21 03:01	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 03:01	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 03:01	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 03:01	1
Molybdenum	0.019		0.0050		mg/L		05/14/21 08:26	05/15/21 03:01	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 03:01	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 03:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 08:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	730		10		mg/L			05/12/21 02:32	1
Chloride	55		10		mg/L			05/26/21 14:16	5
Fluoride	0.67		0.10		mg/L			05/18/21 06:40	1
Sulfate	300		50		mg/L			05/17/21 13:27	10

Definitions/Glossary

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

Job ID: 500-198722-1

Glossary

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

QC Association Summary

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

Job ID: 500-198722-1

Metals

Prep Batch: 598870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total Recoverable	Water	3005A	
500-198722-2	MW-02	Total Recoverable	Water	3005A	
500-198722-3	MW-03	Total Recoverable	Water	3005A	
500-198722-4	MW-04	Total Recoverable	Water	3005A	
500-198722-5	MW-09	Total Recoverable	Water	3005A	
500-198722-6	MW-11	Total Recoverable	Water	3005A	
500-198722-7	MW-14	Total Recoverable	Water	3005A	
500-198722-8	MW-16	Total Recoverable	Water	3005A	
500-198722-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-598870/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-598870/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 599208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total Recoverable	Water	6010C	598870
500-198722-2	MW-02	Total Recoverable	Water	6010C	598870
500-198722-3	MW-03	Total Recoverable	Water	6010C	598870
500-198722-4	MW-04	Total Recoverable	Water	6010C	598870
500-198722-5	MW-09	Total Recoverable	Water	6010C	598870
500-198722-6	MW-11	Total Recoverable	Water	6010C	598870
500-198722-7	MW-14	Total Recoverable	Water	6010C	598870
500-198722-8	MW-16	Total Recoverable	Water	6010C	598870
500-198722-9	Duplicate	Total Recoverable	Water	6010C	598870
MB 500-598870/1-A	Method Blank	Total Recoverable	Water	6010C	598870
LCS 500-598870/2-A	Lab Control Sample	Total Recoverable	Water	6010C	598870

Analysis Batch: 599245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total Recoverable	Water	6020A	598870
500-198722-2	MW-02	Total Recoverable	Water	6020A	598870
500-198722-3	MW-03	Total Recoverable	Water	6020A	598870
500-198722-4	MW-04	Total Recoverable	Water	6020A	598870
500-198722-5	MW-09	Total Recoverable	Water	6020A	598870
500-198722-6	MW-11	Total Recoverable	Water	6020A	598870
500-198722-7	MW-14	Total Recoverable	Water	6020A	598870
500-198722-8	MW-16	Total Recoverable	Water	6020A	598870
500-198722-9	Duplicate	Total Recoverable	Water	6020A	598870
MB 500-598870/1-A	Method Blank	Total Recoverable	Water	6020A	598870
LCS 500-598870/2-A	Lab Control Sample	Total Recoverable	Water	6020A	598870

Analysis Batch: 599524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total Recoverable	Water	6020A	598870
500-198722-2	MW-02	Total Recoverable	Water	6020A	598870
500-198722-3	MW-03	Total Recoverable	Water	6020A	598870
500-198722-4	MW-04	Total Recoverable	Water	6020A	598870
500-198722-5	MW-09	Total Recoverable	Water	6020A	598870
500-198722-6	MW-11	Total Recoverable	Water	6020A	598870
500-198722-7	MW-14	Total Recoverable	Water	6020A	598870
500-198722-8	MW-16	Total Recoverable	Water	6020A	598870
500-198722-9	Duplicate	Total Recoverable	Water	6020A	598870

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QC Association Summary

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

Job ID: 500-198722-1

Metals (Continued)

Analysis Batch: 599524 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-598870/1-A	Method Blank	Total Recoverable	Water	6020A	598870
LCS 500-598870/2-A	Lab Control Sample	Total Recoverable	Water	6020A	598870

Prep Batch: 599726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	7470A	
500-198722-2	MW-02	Total/NA	Water	7470A	
500-198722-3	MW-03	Total/NA	Water	7470A	
500-198722-4	MW-04	Total/NA	Water	7470A	
500-198722-5	MW-09	Total/NA	Water	7470A	
500-198722-6	MW-11	Total/NA	Water	7470A	
500-198722-7	MW-14	Total/NA	Water	7470A	
500-198722-8	MW-16	Total/NA	Water	7470A	
500-198722-9	Duplicate	Total/NA	Water	7470A	
MB 500-599726/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-599726/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-198722-6 MS	MW-11	Total/NA	Water	7470A	
500-198722-6 MSD	MW-11	Total/NA	Water	7470A	
500-198722-6 DU	MW-11	Total/NA	Water	7470A	

Analysis Batch: 599974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	7470A	599726
500-198722-2	MW-02	Total/NA	Water	7470A	599726
500-198722-3	MW-03	Total/NA	Water	7470A	599726
500-198722-4	MW-04	Total/NA	Water	7470A	599726
500-198722-5	MW-09	Total/NA	Water	7470A	599726
500-198722-6	MW-11	Total/NA	Water	7470A	599726
500-198722-7	MW-14	Total/NA	Water	7470A	599726
500-198722-8	MW-16	Total/NA	Water	7470A	599726
500-198722-9	Duplicate	Total/NA	Water	7470A	599726
MB 500-599726/12-A	Method Blank	Total/NA	Water	7470A	599726
LCS 500-599726/13-A	Lab Control Sample	Total/NA	Water	7470A	599726
500-198722-6 MS	MW-11	Total/NA	Water	7470A	599726
500-198722-6 MSD	MW-11	Total/NA	Water	7470A	599726
500-198722-6 DU	MW-11	Total/NA	Water	7470A	599726

General Chemistry

Analysis Batch: 597339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	SM 2540C	
MB 500-597339/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-597339/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 598219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-2	MW-02	Total/NA	Water	SM 2540C	
500-198722-3	MW-03	Total/NA	Water	SM 2540C	
500-198722-4	MW-04	Total/NA	Water	SM 2540C	
500-198722-5	MW-09	Total/NA	Water	SM 2540C	

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QC Association Summary

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

Job ID: 500-198722-1

General Chemistry (Continued)

Analysis Batch: 598219 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-6	MW-11	Total/NA	Water	SM 2540C	
500-198722-7	MW-14	Total/NA	Water	SM 2540C	
500-198722-8	MW-16	Total/NA	Water	SM 2540C	
500-198722-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-598219/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-598219/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 599407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-198722-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-198722-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-198722-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-198722-5	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-198722-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-198722-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-198722-8	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-198722-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-599407/50	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-599407/51	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 599490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	SM 4500 F C	
500-198722-2	MW-02	Total/NA	Water	SM 4500 F C	
500-198722-3	MW-03	Total/NA	Water	SM 4500 F C	
500-198722-4	MW-04	Total/NA	Water	SM 4500 F C	
500-198722-5	MW-09	Total/NA	Water	SM 4500 F C	
500-198722-6	MW-11	Total/NA	Water	SM 4500 F C	
500-198722-7	MW-14	Total/NA	Water	SM 4500 F C	
500-198722-8	MW-16	Total/NA	Water	SM 4500 F C	
500-198722-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-599490/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-599490/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-198722-1 MS	MW-01	Total/NA	Water	SM 4500 F C	
500-198722-1 MSD	MW-01	Total/NA	Water	SM 4500 F C	

Analysis Batch: 600991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-198722-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-198722-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-198722-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-198722-5	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-198722-6	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-198722-7	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-198722-8	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-198722-9	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-600991/31	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-600991/32	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-198722-1 MS	MW-01	Total/NA	Water	SM 4500 Cl- E	

Eurofins TestAmerica, Chicago

QC Association Summary

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

Job ID: 500-198722-1

General Chemistry (Continued)

Analysis Batch: 600991 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1 MSD	MW-01	Total/NA	Water	SM 4500 Cl- E	

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

QC Sample Results

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

Job ID: 500-198722-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-598870/1-A
Matrix: Water
Analysis Batch: 599208

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/14/21 08:26	05/14/21 16:07	1

Lab Sample ID: LCS 500-598870/2-A
Matrix: Water
Analysis Batch: 599208

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.535		mg/L		107	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-598870/1-A
Matrix: Water
Analysis Batch: 599245

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/14/21 08:26	05/15/21 01:23	1
Arsenic	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 01:23	1
Barium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 01:23	1
Beryllium	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 01:23	1
Cadmium	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 01:23	1
Calcium	<0.20		0.20		mg/L		05/14/21 08:26	05/15/21 01:23	1
Chromium	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 01:23	1
Cobalt	<0.0010		0.0010		mg/L		05/14/21 08:26	05/15/21 01:23	1
Lead	<0.00050		0.00050		mg/L		05/14/21 08:26	05/15/21 01:23	1
Molybdenum	<0.0050		0.0050		mg/L		05/14/21 08:26	05/15/21 01:23	1
Selenium	<0.0025		0.0025		mg/L		05/14/21 08:26	05/15/21 01:23	1
Thallium	<0.0020		0.0020		mg/L		05/14/21 08:26	05/15/21 01:23	1

Lab Sample ID: MB 500-598870/1-A
Matrix: Water
Analysis Batch: 599524

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/14/21 08:26	05/17/21 12:34	1

Lab Sample ID: LCS 500-598870/2-A
Matrix: Water
Analysis Batch: 599245

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.505		mg/L		101	80 - 120
Arsenic	0.100	0.0952		mg/L		95	80 - 120
Barium	2.00	1.98		mg/L		99	80 - 120
Beryllium	0.0500	0.0467		mg/L		93	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Calcium	10.0	9.82		mg/L		98	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-198722-1

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

Lab Sample ID: LCS 500-598870/2-A
Matrix: Water
Analysis Batch: 599245

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	0.946		mg/L		95	80 - 120
Selenium	0.100	0.0948		mg/L		95	80 - 120
Thallium	0.100	0.111		mg/L		111	80 - 120

Lab Sample ID: LCS 500-598870/2-A
Matrix: Water
Analysis Batch: 599524

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 598870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-599726/12-A
Matrix: Water
Analysis Batch: 599974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599726

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/19/21 09:05	05/20/21 07:19	1

Lab Sample ID: LCS 500-599726/13-A
Matrix: Water
Analysis Batch: 599974

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00203		mg/L		101	80 - 120

Lab Sample ID: 500-198722-6 MS
Matrix: Water
Analysis Batch: 599974

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 599726

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.00101		mg/L		101	75 - 125

Lab Sample ID: 500-198722-6 MSD
Matrix: Water
Analysis Batch: 599974

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 599726

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.00101		mg/L		101	75 - 125	0	20

Lab Sample ID: 500-198722-6 DU
Matrix: Water
Analysis Batch: 599974

Client Sample ID: MW-11
Prep Type: Total/NA
Prep Batch: 599726

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

QC Sample Results

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

Job ID: 500-198722-1

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

Lab Sample ID: MB 500-597339/1
Matrix: Water
Analysis Batch: 597339

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/07/21 05:39	1

Lab Sample ID: LCS 500-597339/2
Matrix: Water
Analysis Batch: 597339

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	236		mg/L		94	80 - 120

Lab Sample ID: MB 500-598219/1
Matrix: Water
Analysis Batch: 598219

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/12/21 01:54	1

Lab Sample ID: LCS 500-598219/2
Matrix: Water
Analysis Batch: 598219

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	248		mg/L		99	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-600991/31
Matrix: Water
Analysis Batch: 600991

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/26/21 14:03	1

Lab Sample ID: LCS 500-600991/32
Matrix: Water
Analysis Batch: 600991

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.5		mg/L		102	85 - 115

Lab Sample ID: 500-198722-1 MS
Matrix: Water
Analysis Batch: 600991

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	67		20.0	89.3		mg/L		113	75 - 125

QC Sample Results

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

Job ID: 500-198722-1

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

Lab Sample ID: 500-198722-1 MSD
Matrix: Water
Analysis Batch: 600991

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	67		20.0	89.4		mg/L		113	75 - 125	0	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-599490/3
Matrix: Water
Analysis Batch: 599490

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/18/21 05:07	1

Lab Sample ID: LCS 500-599490/4
Matrix: Water
Analysis Batch: 599490

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	11.3		mg/L		113	80 - 120

Lab Sample ID: 500-198722-1 MS
Matrix: Water
Analysis Batch: 599490

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.22		5.00	5.57		mg/L		107	75 - 125

Lab Sample ID: 500-198722-1 MSD
Matrix: Water
Analysis Batch: 599490

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.22		5.00	5.59		mg/L		107	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-599407/50
Matrix: Water
Analysis Batch: 599407

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/17/21 13:18	1

Lab Sample ID: LCS 500-599407/51
Matrix: Water
Analysis Batch: 599407

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.3		mg/L		101	80 - 120

Lab Chronicle

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

Job ID: 500-198722-1

Client Sample ID: MW-01
Date Collected: 05/05/21 15:58
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:15	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	599524	05/17/21 13:19	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 07:27	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	597339	05/07/21 06:38	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	600991	05/26/21 14:04	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 05:21	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:22	MS	TAL CHI

Client Sample ID: MW-02
Date Collected: 05/05/21 15:01
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:18	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:29	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	599524	05/17/21 13:23	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 07:29	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:14	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	600991	05/26/21 14:05	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 05:42	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:23	MS	TAL CHI

Client Sample ID: MW-03
Date Collected: 05/05/21 13:56
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:22	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:33	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	599524	05/17/21 13:26	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 07:31	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-198722-1

Client Sample ID: MW-03

Lab Sample ID: 500-198722-3

Date Collected: 05/05/21 13:56

Matrix: Water

Date Received: 05/06/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	600991	05/26/21 14:05	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 05:48	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:24	MS	TAL CHI

Client Sample ID: MW-04

Lab Sample ID: 500-198722-4

Date Collected: 05/05/21 13:00

Matrix: Water

Date Received: 05/06/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:25	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:36	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	599524	05/17/21 13:30	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 07:34	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:19	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	600991	05/26/21 14:04	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 05:52	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:24	MS	TAL CHI

Client Sample ID: MW-09

Lab Sample ID: 500-198722-5

Date Collected: 05/06/21 12:32

Matrix: Water

Date Received: 05/07/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:29	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:47	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	599524	05/17/21 13:33	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 07:36	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	600991	05/26/21 14:05	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 05:59	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:24	MS	TAL CHI

Lab Chronicle

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

Job ID: 500-198722-1

Client Sample ID: MW-11
Date Collected: 05/06/21 14:20
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:40	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:50	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	599524	05/17/21 13:38	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 08:25	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:25	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	600991	05/26/21 14:06	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 06:05	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		3	599407	05/17/21 13:25	MS	TAL CHI

Client Sample ID: MW-14
Date Collected: 05/06/21 15:22
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:43	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599524	05/17/21 13:41	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 08:33	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:27	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	600991	05/26/21 14:06	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 06:26	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		1	599407	05/17/21 15:01	MS	TAL CHI

Client Sample ID: MW-16
Date Collected: 05/06/21 10:23
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:47	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 02:57	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	599524	05/17/21 13:45	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 08:35	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-198722-1

Client Sample ID: MW-16

Lab Sample ID: 500-198722-8

Date Collected: 05/06/21 10:23

Matrix: Water

Date Received: 05/07/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	600991	05/26/21 14:06	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 06:33	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:26	MS	TAL CHI

Client Sample ID: Duplicate

Lab Sample ID: 500-198722-9

Date Collected: 05/06/21 00:00

Matrix: Water

Date Received: 05/07/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	599208	05/14/21 16:51	JJB	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	599245	05/15/21 03:01	FXG	TAL CHI
Total Recoverable	Prep	3005A			598870	05/14/21 08:26	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	599524	05/17/21 13:48	FXG	TAL CHI
Total/NA	Prep	7470A			599726	05/19/21 09:05	MJG	TAL CHI
Total/NA	Analysis	7470A		1	599974	05/20/21 08:42	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	598219	05/12/21 02:32	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	600991	05/26/21 14:16	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	599490	05/18/21 06:40	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	599407	05/17/21 13:27	MS	TAL CHI

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 500-198722-1

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Chain of Custody Record 490573



Environment Testing
TestAmerica

Address _____

Regulatory Program: DW NPDES RCRA Other

TAL-9210

Client Contact		Project Manager		Site Contact		Date		COC No	
Company Name: KPR&		Tel/Email: _____		Lab Contact: M. Fabel Dalen		Carrier: FEDEX		COC No _____ of _____ COCs	
Address: 14665 W Lybom Rd. Ste 1A		Analysis Turnaround Time		Date: 5/15/2021		Sampler		For Lab Use Only	
City/State/Zip: Brookfield / WI 53005		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Date: 5/15/2021		Walk-in Client		Lab Sampling	
Phone: 262-781-0475		TAT if different from Below		Date: 5/15/2021		Job / SDG No		Sample Specific Notes	
Fax: _____		1 week		Date: 5/15/2021		505-198722			
Project Name: Waikagan CCR		2 weeks		Date: 5/15/2021					
Site: Waikagan Station		1 day		Date: 5/15/2021					
P.O.#: 450204830		2 days		Date: 5/15/2021					
Sample Identification		Sample Date		Sample Time		Sample Type (G-Comp, G-Grab)		Matrix	
MW-01		5/15		1558		G		W	
MW-02		5/15		1501		G		W	
MW-03		5/15		1356		G		W	
MW-04		5/15		1300		G		W	
Sample Date		Sample Time		Sample Type (G-Comp, G-Grab)		Matrix		# of Cont.	
MW-01		5/15		1558		G		W	
MW-02		5/15		1501		G		W	
MW-03		5/15		1356		G		W	
MW-04		5/15		1300		G		W	
Filtered Sample (Y/N)		Perform MS / MSD (Y/N)		Date		Carrier		COC No	
X		903.0 - Rad 226		5/15/2021		FEDEX		COC No _____ of _____ COCs	
X		904.0 - Rad 228		5/15/2021		FEDEX		COC No _____ of _____ COCs	
X		Radium Combined		5/15/2021		FEDEX		COC No _____ of _____ COCs	
X		6010C, 6020A, 7420A		5/15/2021		FEDEX		COC No _____ of _____ COCs	
X		Fl, Cl, sulfate		5/15/2021		FEDEX		COC No _____ of _____ COCs	
X		SM4500 - H+ LW		5/15/2021		FEDEX		COC No _____ of _____ COCs	
X		2540 - TDS		5/15/2021		FEDEX		COC No _____ of _____ COCs	
500-198722 COC		500-198722 COC		500-198722 COC		500-198722 COC		500-198722 COC	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please list any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Special Instructions/QC Requirements & Comments: **Appendix III, Appendix IV Metals**

Non-Hazardous: Flammable Skin Irritant Poison B Unknown

Cooler Temp (°C) Obs'd: **8.9**

Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: Yes No

Relinquished by: **M. Fabel Dalen** Company: **KPR&** Date/Time: **5/15/21 1700**

Received by: **FEDEX** Company: **FEDEX** Date/Time: **5/15/21 1700**

Relinquished by: _____ Company: _____ Date/Time: _____

Received by: **LABORATORY** Company: **LABORATORY** Date/Time: **5/10/21 0950**

Eurofins TestAmerica, Chicago

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

Chain of Custody Record

Client Information		Sampler: <u>Mitchel Dolan</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s):		COC No: <u>500-91227-40689 1</u>	
Client Contact: <u>Mitchel Dolan</u>		Phone: <u>262-622-1143</u>		E-Mail: <u>Diana.Mockler@Eurofinset.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>	
Company: <u>KPRG and Associates Inc.</u>		Address: <u>14665 West Lisbon Road, Suite 1A</u>		City: <u>Brookfield</u>		State, Zip: <u>WI 53005</u>		Job #: <u>500-198722</u>	
Phone: <u>815-372-4501(Tel)</u>		Email: <u>mitcheld@kprginc.com</u>		Project Name: <u>Waukegan CCR Event Desc: Quarterly Waukegan CCR</u>		Project #: <u>50011597</u>		SSOW#: <u></u>	
Site: <u>Illinois</u>		Due Date Requested:		TAT Requested (days):		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #: <u>4502012555</u>	
500-198722 COC		QR Code		Analysis Requested		Preservation Codes:		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)	Total Number of Containers	Special Instructions/Note
MW-01					Water	X	X	X	
MW-02					Water				
MW-03					Water				
MW-04					Water				
5 6 7 8 9		MW-09	5/6/21 1232	G	Water	X	X	X	
		MW-11	5/6/21 1420	↓	Water				
		MW-14	5/6/21 1522	↓	Water				
		MW-16	5/6/21 1023	↓	Water				
		Duplicate	5/6/21 -	↓	Water				
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Deliverable Requested I, II, III, IV, Other (specify)	
								Special Instructions/QC Requirements.	
Empty Kit Relinquished by:		Date	Time	Method of Shipment:					
Relinquished by: <u>Mitchel Dolan</u>		Date/Time: <u>5/6/21 / 1700</u>	Company: <u>KPRG</u>	Received by: <u>FEDEX</u>		Date/Time: <u>5/6/21 / 1700</u>	Company:		
Relinquished by:		Date/Time:	Company:	Received by: <u>Shirley Scott</u>		Date/Time: <u>5/6/21 1000</u>	Company: <u>ETA-CH</u>		
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time: <u>5/7/21</u>	Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:					

ORIGIN ID:FEP (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 05MAY21
ACTWT: 63.20 LB
CAD: 6994083/SSFE2201
DIMS: 27x15x15 IN
BILL THIRD PARTY

Part # 158297435
WFE/DT/Screen

TO

TESTAMERICA CHICAGO
2417 BOND ST



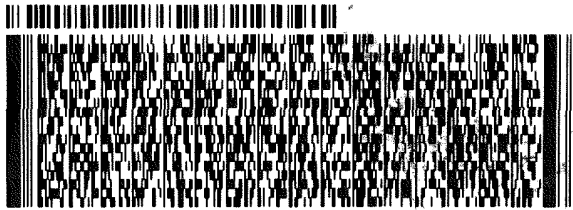
UNIVERSITY PARK IL 60484

500-198722 Wayb

(777) 777-7777
INU:
PO:

REF:

DEPT:



FedEx
Express



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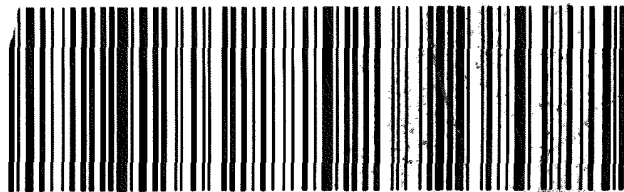
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3785346

TRK# 7868 2367 8273
0201

THU - 06 MAY 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
IL-US ORD



48 qt.

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ORIGIN ID: FEPA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

SHIP DATE: 06MAY21
ACTWGT: 58.20 LB
CAD: 6994083/SSFE2201
DIMS: 27x13x14 IN

WESTMONT, IL 60559
UNITED STATES US

BILL THIRD PARTY

TO

TESTAMERICA CHICAGO
2417 BOND ST



UNIVERSITY PARK IL 60484

500-198722 Wayb

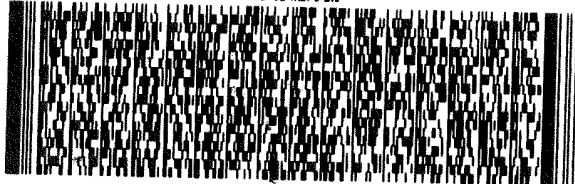
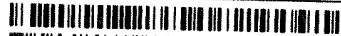
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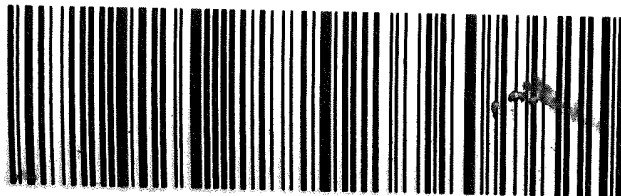
REL#
3785346

TRK# 7868-6987 3669
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FRI - 07 MAY 10:30A
PRIORITY OVERNIGHT

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ORIGIN ID: FEPA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

SHIP DATE: 06MAY21
ACTWGT: 61.45 LB
CAD: 6994083/SSFE2201
DIMS: 26x14x13 IN

WESTMONT, IL 60559
UNITED STATES US

BILL THIRD PARTY

TO

TESTAMERICA CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484

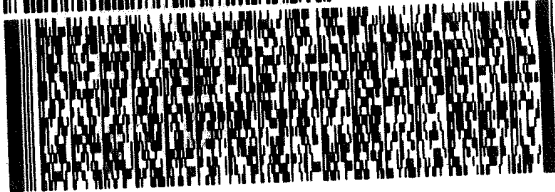
(777) 777-7777

REF:

INU:

PO:

DEPT:



FedEx
Express



REL#
3785346

TRK# 7868 6984 1939
0201

FRI - 07 MAY 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
IL-US ORD



Part # 1562974347 PRTD/EXP 01/22

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ORIGIN ID: FEPA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

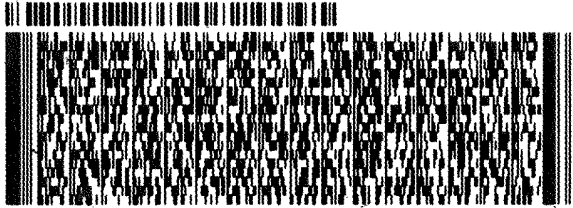
SHIP DATE: 06MAY21
ACTWGT: 55.00 LB
CAD: 6994083/SSFE2201
DIMS: 26x14x13 IN
BILL THIRD PARTY

Part # 158297-7237/FFDA/55EXP 01/22

TO
TESTAMERICA CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484

(777) 777-7777 REF:
INU: DEPT:
PD:



FedEx
Express



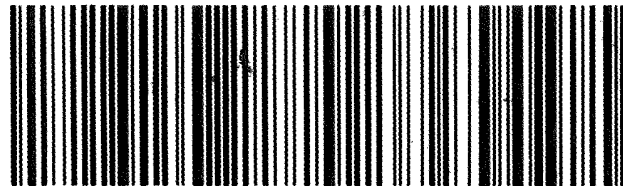
REL#
3785346

TRK# 7868 6979 8199
0201

FRI - 07 MAY 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
IL-US ORD



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Mockler, Diana J		500-148281.1
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@Eurofinset.com		State of Origin: Illinois	Page: Page 1 of 1
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Accreditations Required (See note): NELAP - Illinois		Job #: 500-198722-2	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Due Date Requested: 6/6/2021		Field Filtered Sample (Yes or No)		Total Number of Containers	
TAT Requested (days):		Perform M/MSD (Yes or No)		Special Instructions/Note:	
PO #:		903.0/PreSep_21 Standard Target List		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
WO #:		904.0/PreSep_0 Standard Target List		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
Project #: 50011597		Field Filtered Sample (Yes or No)		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
Site: NRG Midwest Generation Waukegan		X		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
SSOW#:		X		Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;	
Sample Identification - Client ID (Lab ID)		Preservation Code:		Special Instructions/Note:	
MW-01 (500-198722-1)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-site)	3
	5/5/21	15:38 Central	Water	Water	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-02 (500-198722-2)	5/5/21	15:01 Central	Water	Water	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-03 (500-198722-3)	5/5/21	13:56 Central	Water	Water	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-04 (500-198722-4)	5/5/21	13:00 Central	Water	Water	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>					
Possible Hazard Identification					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Date/Time: 5/6/21 1620					
Relinquished by: <i>[Signature]</i>					
Relinquished by: FED EX					
Relinquished by:					
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Custody Seal No.:					
Date/Time: 5/17/21 09:14					
Relinquished by: <i>[Signature]</i>					
Relinquished by: FED EX					
Relinquished by:					
Cooler Temperature(s) °C and Other Remarks:					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					
Method of Shipment:					
Date/Time:					
Received by: <i>[Signature]</i>					
Received by: FED EX					
Received by: <i>[Signature]</i>					
Received by: <i>[Signature]</i>					
Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J		Carrier Tracking No(s): 500-148315.1		
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1		
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-198722-1		
Address: 13715 Rider Trail North,		Due Date Requested: 5/27/2021		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 - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
City: Earth City		TAT Requested (days):		Analysis Requested		
State, Zip: MO, 63045		PO #:		Total Number of Containers		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:		Perform MS/MSD (Yes or No)		
Email:		Project #:		Field Filtered Sample (Yes or No)		
Project Name: Waukegan CCR		50011597		903.0/PreSep_21 Standard Target List		
Site: NRG Midwest Generation Waukegan		SSOW#:		904.0/PreSep_0 Standard Target List		
				R226Ra228_GFP		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Where, Smells, On-site/Off-site)	Preservation Code:	Special Instructions/Note:
MW-09 (500-198722-5)	5/6/21	12:32 Central	Water	Water	X	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
MW-11 (500-198722-6)	5/6/21	14:20 Central	Water	Water	X	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
MW-14 (500-198722-7)	5/6/21	15:22 Central	Water	Water	X	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
MW-16 (500-198722-8)	5/6/21	10:23 Central	Water	Water	X	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
Duplicate (500-198722-9)	5/6/21	Central	Water	Water	X	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>						
Possible Hazard Identification						
Unconfirmed						
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2						
Empty Kit Relinquished by: _____ Date: _____						
Relinquished by: <i>Stephanie Hernandez</i> Date/Time: 5/17/21 11:30						
Relinquished by: <i>Stephanie Hernandez</i> Date/Time: 5/17/21 11:30						
Relinquished by: <i>Stephanie Hernandez</i> Date/Time: 5/17/21 09:00						
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks:						
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Special Instructions/QC Requirements:						
Method of Shipment: _____ Date/Time: _____						
Received by: <i>Stephanie Hernandez</i> Date/Time: 5/17/21 11:30						
Received by: <i>Stephanie Hernandez</i> Date/Time: 5/17/21 11:30						
Received by: <i>Stephanie Hernandez</i> Date/Time: 5/17/21 09:00						

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-198722-1

Login Number: 198722

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

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	0.9,2.1,2.0,2.1
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	

ANALYTICAL REPORT

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

Laboratory Job ID: 500-198722-2
Client Project/Site: Waukegan CCR

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

Attn: Richard Gnat



Authorized for release by:
6/10/2021 6:40:13 PM

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

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Case Narrative

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

Job ID: 500-198722-2

Job ID: 500-198722-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-198722-2

Comments

No additional comments.

Receipt

The samples were received on 5/6/2021 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.9° C, 2.0° C, 2.1° C and 2.1° C.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-509491:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-01 (500-198722-1), MW-02 (500-198722-2), MW-03 (500-198722-3), MW-04 (500-198722-4), MW-09 (500-198722-5), MW-11 (500-198722-6), MW-14 (500-198722-7), MW-16 (500-198722-8), Duplicate (500-198722-9), (LCS 160-509491/1-A), (MB 160-509491/23-A) and (500-198722-D-7-B DU)

Methods 904.0, 9320: Radium-228 prep batch 160-509493:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-01 (500-198722-1), MW-02 (500-198722-2), MW-03 (500-198722-3), MW-04 (500-198722-4), MW-09 (500-198722-5), MW-11 (500-198722-6), MW-14 (500-198722-7), MW-16 (500-198722-8), Duplicate (500-198722-9), (LCS 160-509493/1-A), (MB 160-509493/23-A) and (500-198722-D-7-C DU)

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



Method Summary

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

Job ID: 500-198722-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

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

Job ID: 500-198722-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-198722-1	MW-01	Water	05/05/21 15:58	05/06/21 09:50	
500-198722-2	MW-02	Water	05/05/21 15:01	05/06/21 09:50	
500-198722-3	MW-03	Water	05/05/21 13:56	05/06/21 09:50	
500-198722-4	MW-04	Water	05/05/21 13:00	05/06/21 09:50	
500-198722-5	MW-09	Water	05/06/21 12:32	05/07/21 10:00	
500-198722-6	MW-11	Water	05/06/21 14:20	05/07/21 10:00	
500-198722-7	MW-14	Water	05/06/21 15:22	05/07/21 10:00	
500-198722-8	MW-16	Water	05/06/21 10:23	05/07/21 10:00	
500-198722-9	Duplicate	Water	05/06/21 00:00	05/07/21 10:00	

Client Sample Results

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

Job ID: 500-198722-2

Client Sample ID: MW-01

Lab Sample ID: 500-198722-1

Date Collected: 05/05/21 15:58

Matrix: Water

Date Received: 05/06/21 09:50

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.217		0.141	0.143	1.00	0.184	pCi/L	05/13/21 13:36	06/05/21 19:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.3		40 - 110					05/13/21 13:36	06/05/21 19:57	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.602	U	0.338	0.338	1.00	0.602	pCi/L	05/13/21 14:13	06/02/21 09:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.3		40 - 110					05/13/21 14:13	06/02/21 09:39	1
Y Carrier	86.0		40 - 110					05/13/21 14:13	06/02/21 09:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.602	U	0.366	0.367	5.00	0.602	pCi/L		06/10/21 12:31	1

Client Sample ID: MW-02

Lab Sample ID: 500-198722-2

Date Collected: 05/05/21 15:01

Matrix: Water

Date Received: 05/06/21 09:50

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.224		0.149	0.150	1.00	0.204	pCi/L	05/13/21 13:36	06/05/21 21:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.8		40 - 110					05/13/21 13:36	06/05/21 21:41	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.746		0.398	0.404	1.00	0.590	pCi/L	05/13/21 14:13	06/02/21 09:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.8		40 - 110					05/13/21 14:13	06/02/21 09:39	1
Y Carrier	85.2		40 - 110					05/13/21 14:13	06/02/21 09:39	1

Client Sample Results

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

Job ID: 500-198722-2

Client Sample ID: MW-02
Date Collected: 05/05/21 15:01
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-2
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.970		0.425	0.431	5.00	0.590	pCi/L		06/10/21 12:31	1

Client Sample ID: MW-03
Date Collected: 05/05/21 13:56
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-3
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.267		0.163	0.164	1.00	0.216	pCi/L	05/13/21 13:36	06/05/21 21:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.6		40 - 110					05/13/21 13:36	06/05/21 21:41	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.631	U	0.392	0.394	1.00	0.631	pCi/L	05/13/21 14:13	06/02/21 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	61.6		40 - 110					05/13/21 14:13	06/02/21 09:41	1
Y Carrier	83.7		40 - 110					05/13/21 14:13	06/02/21 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.689		0.425	0.427	5.00	0.631	pCi/L		06/10/21 12:31	1

Client Sample ID: MW-04
Date Collected: 05/05/21 13:00
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-4
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.252	U	0.156	0.156	1.00	0.252	pCi/L	05/13/21 13:36	06/05/21 21:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	50.5		40 - 110					05/13/21 13:36	06/05/21 21:41	1

Client Sample Results

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

Job ID: 500-198722-2

Client Sample ID: MW-04
Date Collected: 05/05/21 13:00
Date Received: 05/06/21 09:50

Lab Sample ID: 500-198722-4
Matrix: Water

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.781	U	0.452	0.452	1.00	0.781	pCi/L	05/13/21 14:13	06/02/21 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	50.5		40 - 110					05/13/21 14:13	06/02/21 09:41	1
Y Carrier	88.6		40 - 110					05/13/21 14:13	06/02/21 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.781	U	0.478	0.478	5.00	0.781	pCi/L		06/10/21 12:31	1

Client Sample ID: MW-09
Date Collected: 05/06/21 12:32
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-5
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.249	U	0.132	0.132	1.00	0.249	pCi/L	05/13/21 13:36	06/05/21 21:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	59.2		40 - 110					05/13/21 13:36	06/05/21 21:41	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.614	U	0.351	0.351	1.00	0.614	pCi/L	05/13/21 14:13	06/02/21 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	59.2		40 - 110					05/13/21 14:13	06/02/21 09:41	1
Y Carrier	82.6		40 - 110					05/13/21 14:13	06/02/21 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.614	U	0.375	0.375	5.00	0.614	pCi/L		06/10/21 12:31	1

Client Sample Results

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

Job ID: 500-198722-2

Client Sample ID: MW-11

Lab Sample ID: 500-198722-6

Date Collected: 05/06/21 14:20

Matrix: Water

Date Received: 05/07/21 10:00

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.265		0.165	0.167	1.00	0.210	pCi/L	05/13/21 13:36	06/05/21 21:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	52.3		40 - 110					05/13/21 13:36	06/05/21 21:41	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.44		0.509	0.526	1.00	0.670	pCi/L	05/13/21 14:13	06/02/21 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	52.3		40 - 110					05/13/21 14:13	06/02/21 09:41	1
Y Carrier	84.5		40 - 110					05/13/21 14:13	06/02/21 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.70		0.535	0.552	5.00	0.670	pCi/L		06/10/21 12:31	1

Client Sample ID: MW-14

Lab Sample ID: 500-198722-7

Date Collected: 05/06/21 15:22

Matrix: Water

Date Received: 05/07/21 10:00

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.291		0.194	0.196	1.00	0.267	pCi/L	05/13/21 13:36	06/05/21 22:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	48.0		40 - 110					05/13/21 13:36	06/05/21 22:18	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.739	U	0.409	0.409	1.00	0.739	pCi/L	05/13/21 14:13	06/02/21 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	48.0		40 - 110					05/13/21 14:13	06/02/21 09:41	1
Y Carrier	85.2		40 - 110					05/13/21 14:13	06/02/21 09:41	1

Client Sample Results

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

Job ID: 500-198722-2

Client Sample ID: MW-14
Date Collected: 05/06/21 15:22
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-7
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.739	U	0.453	0.454	5.00	0.739	pCi/L		06/10/21 12:31	1

Client Sample ID: MW-16
Date Collected: 05/06/21 10:23
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-8
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.270	U	0.143	0.143	1.00	0.270	pCi/L	05/13/21 13:36	06/05/21 22:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	41.4		40 - 110					05/13/21 13:36	06/05/21 22:18	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.919	U	0.554	0.556	1.00	0.919	pCi/L	05/13/21 14:13	06/02/21 09:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	41.4		40 - 110					05/13/21 14:13	06/02/21 09:41	1
Y Carrier	86.0		40 - 110					05/13/21 14:13	06/02/21 09:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.919	U	0.572	0.574	5.00	0.919	pCi/L		06/10/21 12:31	1

Client Sample ID: Duplicate
Date Collected: 05/06/21 00:00
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-9
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.236	U	0.135	0.135	1.00	0.236	pCi/L	05/13/21 13:36	06/05/21 22:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.1		40 - 110					05/13/21 13:36	06/05/21 22:23	1

Client Sample Results

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

Job ID: 500-198722-2

Client Sample ID: Duplicate
Date Collected: 05/06/21 00:00
Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-9
Matrix: Water

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.604	U	0.373	0.374	1.00	0.604	pCi/L	05/13/21 14:13	06/02/21 09:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	60.1		40 - 110					05/13/21 14:13	06/02/21 09:42	1
Y Carrier	87.5		40 - 110					05/13/21 14:13	06/02/21 09:42	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.604	U	0.397	0.398	5.00	0.604	pCi/L		06/10/21 12:31	1



Definitions/Glossary

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

Job ID: 500-198722-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

QC Association Summary

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

Job ID: 500-198722-2

Rad

Prep Batch: 509491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	PrecSep-21	
500-198722-2	MW-02	Total/NA	Water	PrecSep-21	
500-198722-3	MW-03	Total/NA	Water	PrecSep-21	
500-198722-4	MW-04	Total/NA	Water	PrecSep-21	
500-198722-5	MW-09	Total/NA	Water	PrecSep-21	
500-198722-6	MW-11	Total/NA	Water	PrecSep-21	
500-198722-7	MW-14	Total/NA	Water	PrecSep-21	
500-198722-8	MW-16	Total/NA	Water	PrecSep-21	
500-198722-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-509491/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-509491/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-198722-7 DU	MW-14	Total/NA	Water	PrecSep-21	

Prep Batch: 509493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-198722-1	MW-01	Total/NA	Water	PrecSep_0	
500-198722-2	MW-02	Total/NA	Water	PrecSep_0	
500-198722-3	MW-03	Total/NA	Water	PrecSep_0	
500-198722-4	MW-04	Total/NA	Water	PrecSep_0	
500-198722-5	MW-09	Total/NA	Water	PrecSep_0	
500-198722-6	MW-11	Total/NA	Water	PrecSep_0	
500-198722-7	MW-14	Total/NA	Water	PrecSep_0	
500-198722-8	MW-16	Total/NA	Water	PrecSep_0	
500-198722-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-509493/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-509493/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-198722-7 DU	MW-14	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 500-198722-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-509491/23-A
Matrix: Water
Analysis Batch: 512993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 509491

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.192	U	0.0962	0.0962	1.00	0.192	pCi/L	05/13/21 13:36	06/06/21 06:57	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
Ba Carrier	%Yield	Qualifier	40 - 110				05/13/21 13:36		06/06/21 06:57	
	76.0								1	

Lab Sample ID: LCS 160-509491/1-A
Matrix: Water
Analysis Batch: 512962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 509491

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.17		1.25	1.00	0.177	pCi/L	98	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	40 - 110						
	78.1								

Lab Sample ID: 500-198722-7 DU
Matrix: Water
Analysis Batch: 512962

Client Sample ID: MW-14
Prep Type: Total/NA
Prep Batch: 509491

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.291		<0.247	U	0.161	1.00	0.247	pCi/L	0.35	1
Carrier	DU	DU	Limits							
Ba Carrier	%Yield	Qualifier	40 - 110							
	50.5									

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-509493/23-A
Matrix: Water
Analysis Batch: 512429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 509493

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	<0.549	U	0.301	0.302	1.00	0.549	pCi/L	05/13/21 14:13	06/02/21 09:44	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
Ba Carrier	%Yield	Qualifier	40 - 110				05/13/21 14:13		06/02/21 09:44	
Y Carrier	84.1		40 - 110				05/13/21 14:13		06/02/21 09:44	
									1	

QC Sample Results

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

Job ID: 500-198722-2

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

Lab Sample ID: LCS 160-509493/1-A
Matrix: Water
Analysis Batch: 512453

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 509493

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits																	
Radium-228	9.67	8.728		1.11	1.00	0.518	pCi/L	90	75 - 125																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">LCS</th> <th colspan="2">LCS</th> </tr> <tr> <th>Carrier</th> <th>%Yield</th> <th>Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>78.1</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>80.4</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>											LCS		LCS		Carrier	%Yield	Qualifier	Limits	Ba Carrier	78.1		40 - 110	Y Carrier	80.4		40 - 110
LCS		LCS																								
Carrier	%Yield	Qualifier	Limits																							
Ba Carrier	78.1		40 - 110																							
Y Carrier	80.4		40 - 110																							

Lab Sample ID: 500-198722-7 DU
Matrix: Water
Analysis Batch: 512453

Client Sample ID: MW-14
Prep Type: Total/NA
Prep Batch: 509493

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit																
										1																
Radium-228	<0.739	U	<0.787	U	0.449	1.00	0.787	pCi/L	0.11	1																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">DU</th> <th colspan="2">DU</th> </tr> <tr> <th>Carrier</th> <th>%Yield</th> <th>Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>50.5</td> <td></td> <td>40 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>83.4</td> <td></td> <td>40 - 110</td> </tr> </tbody> </table>											DU		DU		Carrier	%Yield	Qualifier	Limits	Ba Carrier	50.5		40 - 110	Y Carrier	83.4		40 - 110
DU		DU																								
Carrier	%Yield	Qualifier	Limits																							
Ba Carrier	50.5		40 - 110																							
Y Carrier	83.4		40 - 110																							

Lab Chronicle

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

Job ID: 500-198722-2

Client Sample ID: MW-01

Lab Sample ID: 500-198722-1

Date Collected: 05/05/21 15:58

Matrix: Water

Date Received: 05/06/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 19:57	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:39	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Client Sample ID: MW-02

Lab Sample ID: 500-198722-2

Date Collected: 05/05/21 15:01

Matrix: Water

Date Received: 05/06/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 21:41	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:39	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Client Sample ID: MW-03

Lab Sample ID: 500-198722-3

Date Collected: 05/05/21 13:56

Matrix: Water

Date Received: 05/06/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 21:41	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:41	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Client Sample ID: MW-04

Lab Sample ID: 500-198722-4

Date Collected: 05/05/21 13:00

Matrix: Water

Date Received: 05/06/21 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 21:41	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:41	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Lab Chronicle

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

Job ID: 500-198722-2

Client Sample ID: MW-09

Date Collected: 05/06/21 12:32

Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 21:41	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:41	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Client Sample ID: MW-11

Date Collected: 05/06/21 14:20

Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 21:41	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:41	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Client Sample ID: MW-14

Date Collected: 05/06/21 15:22

Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 22:18	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:41	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Client Sample ID: MW-16

Date Collected: 05/06/21 10:23

Date Received: 05/07/21 10:00

Lab Sample ID: 500-198722-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512962	06/05/21 22:18	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:41	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Lab Chronicle

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

Job ID: 500-198722-2

Client Sample ID: Duplicate

Lab Sample ID: 500-198722-9

Date Collected: 05/06/21 00:00

Matrix: Water

Date Received: 05/07/21 10:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			509491	05/13/21 13:36	LAR	TAL SL
Total/NA	Analysis	903.0		1	512961	06/05/21 22:23	ANW	TAL SL
Total/NA	Prep	PrecSep_0			509493	05/13/21 14:13	LAR	TAL SL
Total/NA	Analysis	904.0		1	512453	06/02/21 09:42	AK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	513649	06/10/21 12:31	GRW	TAL SL

Laboratory References:

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



Accreditation/Certification Summary

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

Job ID: 500-198722-2

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	004553	11-30-21

- 1
- 2
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Address _____

Chain of Custody Record 490573



Environment Testing
TestAmerica

Regulatory Program: DW NPDES RCRA Other

TAL-9210

Client Contact		Project Manager		Site Contact		Date		COC No	
Company Name: KPR&		Tel/Email: _____		Lab Contact: M. Fabel Dalen		Carrier: FEDEX		COC No _____ of _____ COCs	
Address: 14665 W Lybun Rd. Ste 1A		Analysis Turnaround Time		Date: 5/15/2021		Sampler		For Lab Use Only	
City/State/Zip: Brookfield / WI 53005		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Date: 5/15/2021		Walk-in Client		Lab Sampling	
Phone: 262-781-0475		TAT if different from Below		Date: 5/15/2021		Job / SDG No		Sample Specific Notes	
Fax: _____		1 day <input type="checkbox"/> 2 days <input type="checkbox"/> 1 week <input type="checkbox"/> 2 weeks <input type="checkbox"/>		Date: 5/15/2021		505-198722		500-198722 COC	
Project Name: Waikagan CCR		Sample Identification		Date: 5/15/2021		505-198722		500-198722 COC	
Site: Waikagan Station		Sample Date		Date: 5/15/2021		505-198722		500-198722 COC	
P.O.#: 450204830		Sample Time		Date: 5/15/2021		505-198722		500-198722 COC	
		Sample Type (C=Comp, G=Grab)		Date: 5/15/2021		505-198722		500-198722 COC	
		Matrix		Date: 5/15/2021		505-198722		500-198722 COC	
		# of Cont.		Date: 5/15/2021		505-198722		500-198722 COC	
		Filtered Sample (Y/N)		Date: 5/15/2021		505-198722		500-198722 COC	
		Perform MS / MSD (Y/N)		Date: 5/15/2021		505-198722		500-198722 COC	
		903.0 - Rad 226		Date: 5/15/2021		505-198722		500-198722 COC	
		904.0 - Rad 228		Date: 5/15/2021		505-198722		500-198722 COC	
		Radium Combined		Date: 5/15/2021		505-198722		500-198722 COC	
		6010C, 6020A-2420A		Date: 5/15/2021		505-198722		500-198722 COC	
		Fl, Cl, sulfate		Date: 5/15/2021		505-198722		500-198722 COC	
		SM4500-11 + 1W		Date: 5/15/2021		505-198722		500-198722 COC	
		2540 - TDS		Date: 5/15/2021		505-198722		500-198722 COC	

Eurofins TestAmerica, Chicago

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

Chain of Custody Record

Client Information		Sampler: <u>Mitchel Dolan</u>		Lab PM: <u>Mockler, Diana J</u>		Carrier Tracking No(s):		COC No: <u>500-91227-40689 1</u>			
Client Contact: <u>Mitchel Dolan</u>		Phone: <u>262-622-1143</u>		E-Mail: <u>Diana Mockler@Eurofinset.com</u>		State of Origin: <u>IL</u>		Page: <u>Page 1 of 1</u>			
Company: <u>KPRG and Associates Inc.</u>		PWSID:		Analysis Requested						Job #: <u>500-198722</u>	
Address: <u>14665 West Lisbon Road, Suite 1A</u>		Due Date Requested:								Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 903.0, 904.0 8010C, 8020A, 7470A 2540C, 4500_F_C, SM4500_C1_E, SM4500_SO4_E	
City: <u>Brookfield</u>		TAT Requested (days):									
State, Zip: <u>WI 53005</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Phone: <u>815-372-4501(Tel)</u>		PO #: <u>4502012555</u>									
Email: <u>mitcheld@kprginc.com</u>		WO #:									
Project Name: <u>Waukegan CCR Event Desc: Quarterly Waukegan CCR</u>		Project #: <u>50011597</u>		Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/Oil, BT=Tissue, A=Air)		Preservation Code:		Special Instructions/Note			
Site: <u>Illinois</u>		SSOW#:									
Sample Identification											
MW-01				Water		X X X					
MW-02				Water							
MW-03				Water							
MW-04				Water							
5 6 7 8 9 MW-09		5/6/21 1232		G Water		X X X X X					
MW-11		5/6/21 1420		↓ Water		↓ ↓ ↓ ↓ ↓					
MW-14		5/6/21 1522		↓ Water		↓ ↓ ↓ ↓ ↓					
MW-16		5/6/21 1023		↓ Water		↓ ↓ ↓ ↓ ↓					
Duplicate		5/6/21 -		↓ Water		↓ ↓ ↓ ↓ ↓					
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I, II, III, IV, Other (specify)					Special Instructions/QC Requirements.						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <u>Mitchel Dolan</u>		Date/Time: <u>5/6/21 / 1700</u>		Company: <u>KPRG</u>		Received by: <u>FEDEX</u>		Date/Time: <u>5/6/21 / 1700</u>		Company:	
Relinquished by:		Date/Time:		Company:		Received by: <u>Shirley Scott</u>		Date/Time: <u>5/6/21 1000</u>		Company: <u>ETA-CH</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: <u>5/7/21</u>		Company:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:							

ORIGIN ID: FEPA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 05MAY21
ACTWT: 63.20 LB
CAD: 6994083/SSFE2201
DIMS: 27x15x15 IN
BILL THIRD PARTY

Part # 158297435
WFE/DT/Jerrea

TO
TESTAMERICA CHICAGO
2417 BOND ST

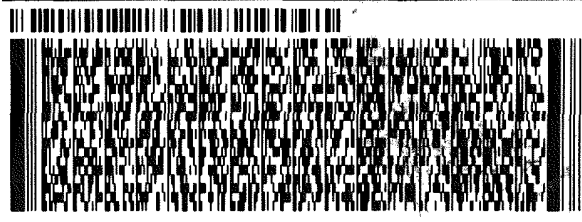


UNIVERSITY PARK IL 60484

500-198722 Wayb

(777) 777-7777
INU:
PO:

REF:
DEPT:



FedEx
Express



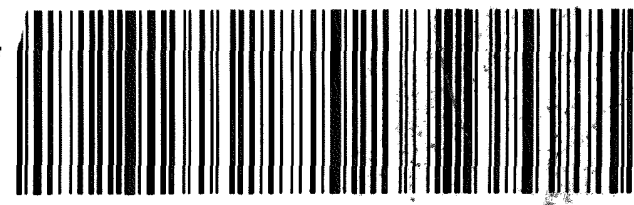
REL#
3785346

TRK# 7868 2367 8273
0201

THU - 06 MAY 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
IL-US ORD



48 qt.

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- 14

ORIGIN ID: FEPA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

SHIP DATE: 06MAY21
ACTWGT: 58.20 LB
CAD: 6994083/SSFE2201
DIMS: 27x13x14 IN

WESTMONT, IL 60559
UNITED STATES US

BILL THIRD PARTY

TO

TESTAMERICA CHICAGO
2417 BOND ST



UNIVERSITY PARK IL 60484

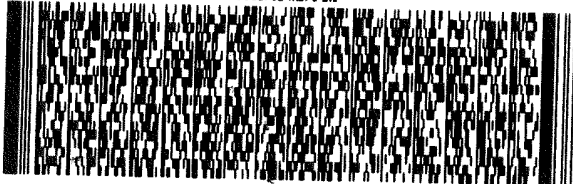
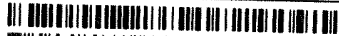
500-198722 Wayb

(777) 777-7777

INU:
PO:

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DEPT:



FedEx
Express



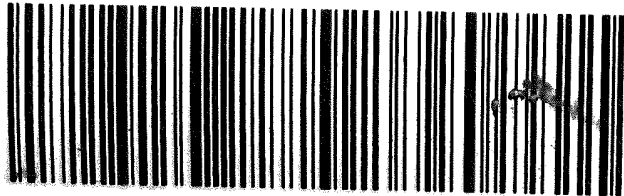
REL#
3785346

TRK# 7868-6987 3669
0201

FRI - 07 MAY 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
IL-US ORD



ORIGIN ID: FEPA (262) 622-1143
MITCHEL DOLAN
KPRG AND ASSOCIATES
414 PLAZA DR STE 106

SHIP DATE: 06MAY21
ACTWGT: 61.45 LB
CAD: 6994083/SSFE2201
DIMS: 26x14x13 IN

WESTMONT, IL 60559
UNITED STATES US

BILL THIRD PARTY

TO

TESTAMERICA CHICAGO
2417 BOND ST

UNIVERSITY PARK IL 60484

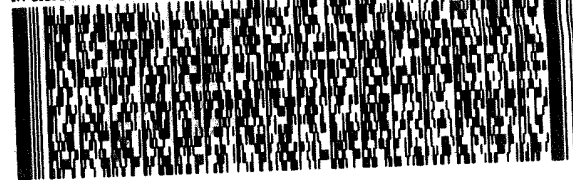
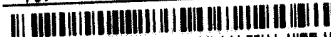
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Part # 1562974347 PRTD/EXP 01/22

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Mockler, Diana J	
Client Contact:		Carrier Tracking No(s):	500-148281.1	
Shipping/Receiving		State of Origin:	Illinois	
Company:		E-Mail:	Diana.Mockler@Eurofinset.com	
TestAmerica Laboratories, Inc.		Accreditations Required (See note):	NELAP - Illinois	
Address:		Due Date Requested:	6/6/2021	
13715 Rider Trail North.		TAT Requested (days):		
City:		PO #:		
Earth City		WO #:		
State, Zip:		Project #:	50011597	
MO, 63045		SSOW#:		
Phone:		314-298-8566(Tel) 314-298-8757(Fax)		
Email:				
Project Name:		Waukegan CCR		
Site:		NRG Midwest Generation Waukegan		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	R226Ra228 GPC	Total Number of Containers	Special Instructions/Note:
MW-01 (500-198722-1)	5/5/21	15:58 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-02 (500-198722-2)	5/5/21	15:01 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-03 (500-198722-3)	5/5/21	13:56 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-04 (500-198722-4)	5/5/21	13:00 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

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

Possible Hazard Identification

Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *John Smith* Date: 5/6/21 1620
 Relinquished by: **FED EX** Date/Time: 5/17/21 0914
 Relinquished by: **FED EX** Date/Time: 5/17/21 0914
 Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: *Michael Kenning's slip 09:00 ETSR*

Chain of Custody Record



Client Information (Sub Contract Lab) Client Contact: Mockler, Diana J Shipping/Receiving: Diana.Mockler@Eurofinset.com Company: TestAmerica Laboratories, Inc. Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email: Project Name: Waukegan CCR Site: NRG Midwest Generation Waukegan		Lab PM: Mockler, Diana J E-Mail: Diana.Mockler@Eurofinset.com Carrier Tracking No(s): 500-148315.1 State of Origin: Illinois Page: 1 of 1 Job #: 500-198722-1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:									
Due Date Requested: 5/27/2021 TAT Requested (days):		Accreditations Required (See note): NELAP - Illinois									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Where, Smells, Onsite/Off, B/F/Tissue, Analy)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep. 21 Standard Target List	904.0/PreSep. 0 Standard Target List	RA226Ra228_GFPC	Total Number of Containers	Special Instructions/Note:
MW-09 (500-198722-5)	5/6/21	12:32 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
MW-11 (500-198722-6)	5/6/21	14:20 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
MW-14 (500-198722-7)	5/6/21	15:22 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
MW-16 (500-198722-8)	5/6/21	10:23 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
Duplicate (500-198722-9)	5/6/21	Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.

Analysis Requested

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____
 Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____
 Relinquished by: *Stephanie Hernandez* Date: 5/7/21 11:30
 Relinquished by: _____ Date: _____
 Relinquished by: _____ Date: _____
 Custody Seals Intact: Yes No Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: _____

Received by: *Stephanie Hernandez* Date: 5/7/21 11:30
 Received by: _____ Date: _____
 Received by: _____ Date: _____
 Company: *FED EX* Company: _____
 Company: _____ Company: _____
 Company: _____ Company: _____



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-198722-2

Login Number: 198722

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9,2.1,2.0,2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-198722-2

Login Number: 198722

List Number: 2

Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis

List Creation: 05/08/21 11:11 AM

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



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-198722-2

Login Number: 198722

List Number: 3

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 05/10/21 04:25 PM

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



Tracer/Carrier Summary

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

Job ID: 500-198722-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

			Percent Yield (Acceptance Limits)			
Lab Sample ID	Client Sample ID	Ba (40-110)				
			500-198722-1	MW-01	61.3	
500-198722-2	MW-02	62.8				
500-198722-3	MW-03	61.6				
500-198722-4	MW-04	50.5				
500-198722-5	MW-09	59.2				
500-198722-6	MW-11	52.3				
500-198722-7	MW-14	48.0				
500-198722-7 DU	MW-14	50.5				
500-198722-8	MW-16	41.4				
500-198722-9	Duplicate	60.1				
LCS 160-509491/1-A	Lab Control Sample	78.1				
MB 160-509491/23-A	Method Blank	76.0				

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

			Percent Yield (Acceptance Limits)				
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)				
				500-198722-1	MW-01	61.3	86.0
500-198722-2	MW-02	62.8	85.2				
500-198722-3	MW-03	61.6	83.7				
500-198722-4	MW-04	50.5	88.6				
500-198722-5	MW-09	59.2	82.6				
500-198722-6	MW-11	52.3	84.5				
500-198722-7	MW-14	48.0	85.2				
500-198722-7 DU	MW-14	50.5	83.4				
500-198722-8	MW-16	41.4	86.0				
500-198722-9	Duplicate	60.1	87.5				
LCS 160-509493/1-A	Lab Control Sample	78.1	80.4				
MB 160-509493/23-A	Method Blank	76.0	84.1				

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

ANALYTICAL REPORT

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

Laboratory Job ID: 500-204027-1
Client Project/Site: Waukegan CCR

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

Attn: Richard Gnat



Authorized for release by:
9/10/2021 2:19:06 PM

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

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

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

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



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Case Narrative

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

Job ID: 500-204027-1

Job ID: 500-204027-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-204027-1

Comments

No additional comments.

Receipt

The samples were received on 8/19/2021 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4° C, 3.3° C and 3.7° C.

Metals

Method 6020A: The continuing calibration verification (CCV) associated with batch 500-616213 recovered above the upper control limit for Cadmium and Thallium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

General Chemistry

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



Method Summary

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

Job ID: 500-204027-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
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 TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

Job ID: 500-204027-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204027-1	MW-01	Water	08/18/21 11:51	08/19/21 09:25
500-204027-2	MW-02	Water	08/18/21 12:49	08/19/21 09:25
500-204027-3	MW-03	Water	08/18/21 13:44	08/19/21 09:25
500-204027-4	MW-04	Water	08/18/21 14:50	08/19/21 09:25
500-204027-5	MW-16	Water	08/18/21 16:19	08/19/21 09:25
500-204027-6	Duplicate	Water	08/18/21 00:00	08/19/21 09:25
500-204027-7	MW-11	Water	08/19/21 11:34	08/20/21 09:30
500-204027-8	MW-14	Water	08/19/21 12:39	08/20/21 09:30
500-204027-9	MW-09	Water	08/19/21 13:46	08/20/21 09:30

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

Client Sample Results

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

Job ID: 500-204027-1

Client Sample ID: MW-01

Lab Sample ID: 500-204027-1

Date Collected: 08/18/21 11:51

Matrix: Water

Date Received: 08/19/21 09:25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/26/21 08:04	09/10/21 12:41	1

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		08/26/21 08:04	08/26/21 18:34	1
Arsenic	0.023		0.0010		mg/L		08/26/21 08:04	08/26/21 18:34	1
Barium	0.044		0.0025		mg/L		08/26/21 08:04	08/26/21 18:34	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:34	1
Boron	2.7		0.50		mg/L		08/26/21 08:04	08/28/21 14:23	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:34	1
Calcium	72		0.20		mg/L		08/26/21 08:04	08/26/21 18:34	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:34	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:34	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:34	1
Molybdenum	0.021		0.0050		mg/L		08/26/21 08:04	08/26/21 18:34	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:34	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			08/19/21 23:31	1
Chloride	60		4.0		mg/L			09/03/21 14:11	2
Fluoride	0.17		0.10		mg/L			09/07/21 11:53	1
Sulfate	170		50		mg/L			09/03/21 13:08	10

Client Sample ID: MW-02

Lab Sample ID: 500-204027-2

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/26/21 08:04	09/10/21 12:44	1

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		08/26/21 08:04	08/26/21 18:38	1
Arsenic	0.0088		0.0010		mg/L		08/26/21 08:04	08/26/21 18:38	1
Barium	0.029		0.0025		mg/L		08/26/21 08:04	08/26/21 18:38	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:38	1
Boron	4.1		1.0		mg/L		08/26/21 08:04	08/28/21 14:27	20
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:38	1
Calcium	84		0.20		mg/L		08/26/21 08:04	08/26/21 18:38	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:38	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:38	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:38	1
Molybdenum	0.021		0.0050		mg/L		08/26/21 08:04	08/26/21 18:38	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:38	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-204027-1

Client Sample ID: MW-02

Lab Sample ID: 500-204027-2

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	480		10		mg/L			08/19/21 23:34	1
Chloride	39		2.0		mg/L			09/03/21 14:09	1
Fluoride	0.50		0.10		mg/L			09/07/21 11:56	1
Sulfate	190		50		mg/L			09/03/21 13:11	10

Client Sample ID: MW-03

Lab Sample ID: 500-204027-3

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/26/21 08:04	09/10/21 12:48	1

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		08/26/21 08:04	08/26/21 18:42	1
Arsenic	0.0061		0.0010		mg/L		08/26/21 08:04	08/26/21 18:42	1
Barium	0.041		0.0025		mg/L		08/26/21 08:04	08/26/21 18:42	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:42	1
Boron	3.0		0.50		mg/L		08/26/21 08:04	08/28/21 14:30	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:42	1
Calcium	150		0.20		mg/L		08/26/21 08:04	08/26/21 18:42	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:42	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:42	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:42	1
Molybdenum	0.016		0.0050		mg/L		08/26/21 08:04	08/26/21 18:42	1
Selenium	0.0088		0.0025		mg/L		08/26/21 08:04	08/26/21 18:42	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	690		10		mg/L			08/19/21 23:37	1
Chloride	46		2.0		mg/L			09/03/21 14:09	1
Fluoride	0.17		0.10		mg/L			09/07/21 11:59	1
Sulfate	250		25		mg/L			09/03/21 13:12	5

Client Sample Results

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

Job ID: 500-204027-1

Client Sample ID: MW-04

Lab Sample ID: 500-204027-4

Date Collected: 08/18/21 14:50

Matrix: Water

Date Received: 08/19/21 09:25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/26/21 08:04	09/10/21 12:51	1

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		08/26/21 08:04	08/26/21 18:45	1
Arsenic	0.0052		0.0010		mg/L		08/26/21 08:04	08/26/21 18:45	1
Barium	0.041		0.0025		mg/L		08/26/21 08:04	08/26/21 18:45	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:45	1
Boron	3.0		0.50		mg/L		08/26/21 08:04	08/28/21 14:34	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:45	1
Calcium	92		0.20		mg/L		08/26/21 08:04	08/26/21 18:45	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:45	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:45	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:45	1
Molybdenum	0.045		0.0050		mg/L		08/26/21 08:04	08/26/21 18:45	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:45	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00031		0.00020		mg/L		08/23/21 13:20	08/24/21 10:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	590		10		mg/L			08/19/21 23:39	1
Chloride	39		2.0		mg/L			09/03/21 14:09	1
Fluoride	0.80		0.10		mg/L			09/07/21 12:02	1
Sulfate	200		25		mg/L			09/03/21 13:13	5

Client Sample ID: MW-16

Lab Sample ID: 500-204027-5

Date Collected: 08/18/21 16:19

Matrix: Water

Date Received: 08/19/21 09:25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.011		0.010		mg/L		08/26/21 08:04	09/10/21 12:54	1

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		08/26/21 08:04	08/26/21 18:49	1
Arsenic	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:49	1
Barium	0.024		0.0025		mg/L		08/26/21 08:04	08/26/21 18:49	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:49	1
Boron	3.1		0.50		mg/L		08/26/21 08:04	08/28/21 14:37	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:49	1
Calcium	140		0.20		mg/L		08/26/21 08:04	08/26/21 18:49	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:49	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:49	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:49	1
Molybdenum	0.020		0.0050		mg/L		08/26/21 08:04	08/26/21 18:49	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:49	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-204027-1

Client Sample ID: MW-16

Lab Sample ID: 500-204027-5

Date Collected: 08/18/21 16:19

Matrix: Water

Date Received: 08/19/21 09:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		10		mg/L			08/19/21 23:42	1
Chloride	55		10		mg/L			09/03/21 14:12	5
Fluoride	0.66		0.10		mg/L			09/07/21 12:05	1
Sulfate	320		50		mg/L			09/03/21 13:13	10

Client Sample ID: Duplicate

Lab Sample ID: 500-204027-6

Date Collected: 08/18/21 00:00

Matrix: Water

Date Received: 08/19/21 09:25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.012		0.010		mg/L		08/26/21 08:04	09/10/21 13:08	1

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		08/26/21 08:04	08/26/21 18:52	1
Arsenic	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:52	1
Barium	0.025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:52	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:52	1
Boron	3.1		0.50		mg/L		08/26/21 08:04	08/28/21 14:41	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:52	1
Calcium	140		0.20		mg/L		08/26/21 08:04	08/26/21 18:52	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:52	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:52	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:52	1
Molybdenum	0.021		0.0050		mg/L		08/26/21 08:04	08/26/21 18:52	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:52	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		10		mg/L			08/19/21 23:44	1
Chloride	54		10		mg/L			09/03/21 14:14	5
Fluoride	0.66		0.10		mg/L			09/07/21 12:18	1
Sulfate	320		50		mg/L			09/03/21 13:14	10

Client Sample Results

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

Job ID: 500-204027-1

Client Sample ID: MW-11

Lab Sample ID: 500-204027-7

Date Collected: 08/19/21 11:34

Matrix: Water

Date Received: 08/20/21 09:30

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.033		0.010		mg/L		08/26/21 08:04	09/10/21 13:11	1

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		08/26/21 08:04	08/26/21 18:56	1
Arsenic	1.1		0.0010		mg/L		08/26/21 08:04	08/26/21 18:56	1
Barium	0.055		0.0025		mg/L		08/26/21 08:04	08/26/21 18:56	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:56	1
Boron	1.3		0.25		mg/L		08/26/21 08:04	08/28/21 14:44	5
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Calcium	140		0.20		mg/L		08/26/21 08:04	08/26/21 18:56	1
Chromium	0.0057		0.0050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:56	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Molybdenum	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:56	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	730		10		mg/L			08/23/21 03:15	1
Chloride	88		10		mg/L			09/03/21 14:14	5
Fluoride	0.16		0.10		mg/L			09/07/21 12:21	1
Sulfate	45		10		mg/L			09/03/21 13:14	2

Client Sample ID: MW-14

Lab Sample ID: 500-204027-8

Date Collected: 08/19/21 12:39

Matrix: Water

Date Received: 08/20/21 09:30

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.013		0.010		mg/L		08/26/21 08:04	09/10/21 13:14	1

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		08/26/21 08:04	08/26/21 18:59	1
Arsenic	3.3		0.0010		mg/L		08/26/21 08:04	08/26/21 18:59	1
Barium	0.046		0.0025		mg/L		08/26/21 08:04	08/26/21 18:59	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:59	1
Boron	0.48		0.050		mg/L		08/26/21 08:04	08/28/21 14:48	1
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Calcium	130		0.20		mg/L		08/26/21 08:04	08/26/21 18:59	1
Chromium	0.045		0.0050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:59	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Molybdenum	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:59	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-204027-1

Client Sample ID: MW-14

Date Collected: 08/19/21 12:39

Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:59	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		10		mg/L			08/23/21 03:18	1
Chloride	32		2.0		mg/L			09/03/21 15:11	1
Fluoride	0.13		0.10		mg/L			09/07/21 12:24	1
Sulfate	34		5.0		mg/L			09/03/21 13:43	1

Client Sample ID: MW-09

Date Collected: 08/19/21 13:46

Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.066		0.010		mg/L		08/26/21 08:04	09/10/21 13:18	1

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		08/26/21 08:04	08/26/21 19:03	1
Arsenic	0.0019		0.0010		mg/L		08/26/21 08:04	08/26/21 19:03	1
Barium	0.015		0.0025		mg/L		08/26/21 08:04	08/26/21 19:03	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 19:03	1
Boron	7.2		1.0		mg/L		08/26/21 08:04	08/28/21 14:58	20
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 19:03	1
Calcium	150		0.20		mg/L		08/26/21 08:04	08/26/21 19:03	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 19:03	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 19:03	1
Lead	0.0015		0.00050		mg/L		08/26/21 08:04	08/26/21 19:03	1
Molybdenum	0.12		0.0050		mg/L		08/26/21 08:04	08/26/21 19:03	1
Selenium	0.071		0.0025		mg/L		08/26/21 08:04	08/26/21 19:03	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 19:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	350		10		mg/L			08/23/21 03:20	1
Chloride	170		10		mg/L			09/03/21 14:20	5
Fluoride	0.13		0.10		mg/L			09/07/21 12:28	1
Sulfate	210		50		mg/L			09/03/21 13:15	10

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Definitions/Glossary

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

Job ID: 500-204027-1

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

QC Association Summary

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

Job ID: 500-204027-1

Metals

Prep Batch: 615608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	7470A	
500-204027-2	MW-02	Total/NA	Water	7470A	
500-204027-3	MW-03	Total/NA	Water	7470A	
500-204027-4	MW-04	Total/NA	Water	7470A	
500-204027-5	MW-16	Total/NA	Water	7470A	
500-204027-6	Duplicate	Total/NA	Water	7470A	
500-204027-7	MW-11	Total/NA	Water	7470A	
500-204027-8	MW-14	Total/NA	Water	7470A	
500-204027-9	MW-09	Total/NA	Water	7470A	
MB 500-615608/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-615608/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-204027-2 MS	MW-02	Total/NA	Water	7470A	
500-204027-2 MSD	MW-02	Total/NA	Water	7470A	
500-204027-2 DU	MW-02	Total/NA	Water	7470A	

Analysis Batch: 615765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	7470A	615608
500-204027-2	MW-02	Total/NA	Water	7470A	615608
500-204027-3	MW-03	Total/NA	Water	7470A	615608
500-204027-4	MW-04	Total/NA	Water	7470A	615608
500-204027-5	MW-16	Total/NA	Water	7470A	615608
500-204027-6	Duplicate	Total/NA	Water	7470A	615608
500-204027-7	MW-11	Total/NA	Water	7470A	615608
500-204027-8	MW-14	Total/NA	Water	7470A	615608
500-204027-9	MW-09	Total/NA	Water	7470A	615608
MB 500-615608/12-A	Method Blank	Total/NA	Water	7470A	615608
LCS 500-615608/13-A	Lab Control Sample	Total/NA	Water	7470A	615608
500-204027-2 MS	MW-02	Total/NA	Water	7470A	615608
500-204027-2 MSD	MW-02	Total/NA	Water	7470A	615608
500-204027-2 DU	MW-02	Total/NA	Water	7470A	615608

Prep Batch: 615969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total Recoverable	Water	3005A	
500-204027-2	MW-02	Total Recoverable	Water	3005A	
500-204027-3	MW-03	Total Recoverable	Water	3005A	
500-204027-4	MW-04	Total Recoverable	Water	3005A	
500-204027-5	MW-16	Total Recoverable	Water	3005A	
500-204027-6	Duplicate	Total Recoverable	Water	3005A	
500-204027-7	MW-11	Total Recoverable	Water	3005A	
500-204027-8	MW-14	Total Recoverable	Water	3005A	
500-204027-9	MW-09	Total Recoverable	Water	3005A	
MB 500-615969/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-615969/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 616213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total Recoverable	Water	6020A	615969
500-204027-2	MW-02	Total Recoverable	Water	6020A	615969
500-204027-3	MW-03	Total Recoverable	Water	6020A	615969

Eurofins TestAmerica, Chicago

QC Association Summary

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

Job ID: 500-204027-1

Metals (Continued)

Analysis Batch: 616213 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-4	MW-04	Total Recoverable	Water	6020A	615969
500-204027-5	MW-16	Total Recoverable	Water	6020A	615969
500-204027-6	Duplicate	Total Recoverable	Water	6020A	615969
500-204027-7	MW-11	Total Recoverable	Water	6020A	615969
500-204027-8	MW-14	Total Recoverable	Water	6020A	615969
500-204027-9	MW-09	Total Recoverable	Water	6020A	615969
MB 500-615969/1-A	Method Blank	Total Recoverable	Water	6020A	615969
LCS 500-615969/2-A	Lab Control Sample	Total Recoverable	Water	6020A	615969

Analysis Batch: 616465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total Recoverable	Water	6020A	615969
500-204027-2	MW-02	Total Recoverable	Water	6020A	615969
500-204027-3	MW-03	Total Recoverable	Water	6020A	615969
500-204027-4	MW-04	Total Recoverable	Water	6020A	615969
500-204027-5	MW-16	Total Recoverable	Water	6020A	615969
500-204027-6	Duplicate	Total Recoverable	Water	6020A	615969
500-204027-7	MW-11	Total Recoverable	Water	6020A	615969
500-204027-8	MW-14	Total Recoverable	Water	6020A	615969
500-204027-9	MW-09	Total Recoverable	Water	6020A	615969
MB 500-615969/1-A	Method Blank	Total Recoverable	Water	6020A	615969
LCS 500-615969/2-A	Lab Control Sample	Total Recoverable	Water	6020A	615969

Analysis Batch: 618108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total Recoverable	Water	6010C	615969
500-204027-2	MW-02	Total Recoverable	Water	6010C	615969
500-204027-3	MW-03	Total Recoverable	Water	6010C	615969
500-204027-4	MW-04	Total Recoverable	Water	6010C	615969
500-204027-5	MW-16	Total Recoverable	Water	6010C	615969
500-204027-6	Duplicate	Total Recoverable	Water	6010C	615969
500-204027-7	MW-11	Total Recoverable	Water	6010C	615969
500-204027-8	MW-14	Total Recoverable	Water	6010C	615969
500-204027-9	MW-09	Total Recoverable	Water	6010C	615969
MB 500-615969/1-A	Method Blank	Total Recoverable	Water	6010C	615969
LCS 500-615969/2-A	Lab Control Sample	Total Recoverable	Water	6010C	615969

General Chemistry

Analysis Batch: 615182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	SM 2540C	
500-204027-2	MW-02	Total/NA	Water	SM 2540C	
500-204027-3	MW-03	Total/NA	Water	SM 2540C	
500-204027-4	MW-04	Total/NA	Water	SM 2540C	
500-204027-5	MW-16	Total/NA	Water	SM 2540C	
500-204027-6	Duplicate	Total/NA	Water	SM 2540C	
MB 500-615182/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-615182/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

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

Job ID: 500-204027-1

General Chemistry

Analysis Batch: 615457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-7	MW-11	Total/NA	Water	SM 2540C	
500-204027-8	MW-14	Total/NA	Water	SM 2540C	
500-204027-9	MW-09	Total/NA	Water	SM 2540C	
MB 500-615457/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-615457/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 617314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-204027-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-204027-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-204027-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-204027-5	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-204027-6	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-204027-7	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-204027-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-204027-9	MW-09	Total/NA	Water	SM 4500 Cl- E	
MB 500-617314/29	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-617314/33	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-204027-1 MS	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-204027-1 MSD	MW-01	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 617315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-204027-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-204027-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-204027-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-204027-5	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-204027-6	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-204027-7	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-204027-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-204027-9	MW-09	Total/NA	Water	SM 4500 SO4 E	
MB 500-617315/32	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-617315/33	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-204027-1 MS	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-204027-1 MSD	MW-01	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 617517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	SM 4500 F C	
500-204027-2	MW-02	Total/NA	Water	SM 4500 F C	
500-204027-3	MW-03	Total/NA	Water	SM 4500 F C	
500-204027-4	MW-04	Total/NA	Water	SM 4500 F C	
500-204027-5	MW-16	Total/NA	Water	SM 4500 F C	
500-204027-6	Duplicate	Total/NA	Water	SM 4500 F C	
500-204027-7	MW-11	Total/NA	Water	SM 4500 F C	
500-204027-8	MW-14	Total/NA	Water	SM 4500 F C	
500-204027-9	MW-09	Total/NA	Water	SM 4500 F C	
MB 500-617517/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-617517/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-204027-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-615969/1-A
Matrix: Water
Analysis Batch: 618108

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/26/21 08:04	09/10/21 12:34	1

Lab Sample ID: LCS 500-615969/2-A
Matrix: Water
Analysis Batch: 618108

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.543		mg/L		109	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-615969/1-A
Matrix: Water
Analysis Batch: 616213

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 14:48	1
Arsenic	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 14:48	1
Barium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 14:48	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 14:48	1
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 14:48	1
Calcium	<0.20		0.20		mg/L		08/26/21 08:04	08/26/21 14:48	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 14:48	1
Cobalt	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 14:48	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 14:48	1
Molybdenum	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 14:48	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 14:48	1
Thallium	<0.0020		0.0020		mg/L		08/26/21 08:04	08/26/21 14:48	1

Lab Sample ID: MB 500-615969/1-A
Matrix: Water
Analysis Batch: 616465

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		08/26/21 08:04	08/28/21 14:16	1

Lab Sample ID: LCS 500-615969/2-A
Matrix: Water
Analysis Batch: 616213

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.525		mg/L		105	80 - 120
Arsenic	0.100	0.0990		mg/L		99	80 - 120
Barium	2.00	2.07		mg/L		103	80 - 120
Beryllium	0.0500	0.0534		mg/L		107	80 - 120
Cadmium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	10.0	10.2		mg/L		102	80 - 120
Chromium	0.200	0.219		mg/L		110	80 - 120
Cobalt	0.500	0.549		mg/L		110	80 - 120
Lead	0.100	0.113		mg/L		113	80 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-204027-1

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

Lab Sample ID: LCS 500-615969/2-A
Matrix: Water
Analysis Batch: 616213

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.114		mg/L		114	80 - 120

Lab Sample ID: LCS 500-615969/2-A
Matrix: Water
Analysis Batch: 616465

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 615969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-615608/12-A
Matrix: Water
Analysis Batch: 615765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615608

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/23/21 13:20	08/24/21 09:49	1

Lab Sample ID: LCS 500-615608/13-A
Matrix: Water
Analysis Batch: 615765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00199		mg/L		100	80 - 120

Lab Sample ID: 500-204027-2 MS
Matrix: Water
Analysis Batch: 615765

Client Sample ID: MW-02
Prep Type: Total/NA
Prep Batch: 615608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.000960		mg/L		96	75 - 125

Lab Sample ID: 500-204027-2 MSD
Matrix: Water
Analysis Batch: 615765

Client Sample ID: MW-02
Prep Type: Total/NA
Prep Batch: 615608

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.000941		mg/L		94	75 - 125	2	20

Lab Sample ID: 500-204027-2 DU
Matrix: Water
Analysis Batch: 615765

Client Sample ID: MW-02
Prep Type: Total/NA
Prep Batch: 615608

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

QC Sample Results

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

Job ID: 500-204027-1

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

Lab Sample ID: MB 500-615182/1
Matrix: Water
Analysis Batch: 615182

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/19/21 22:48	1

Lab Sample ID: LCS 500-615182/2
Matrix: Water
Analysis Batch: 615182

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

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

Lab Sample ID: MB 500-615457/1
Matrix: Water
Analysis Batch: 615457

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/23/21 02:47	1

Lab Sample ID: LCS 500-615457/2
Matrix: Water
Analysis Batch: 615457

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

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

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-617314/29
Matrix: Water
Analysis Batch: 617314

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			09/03/21 14:08	1

Lab Sample ID: LCS 500-617314/33
Matrix: Water
Analysis Batch: 617314

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

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

Lab Sample ID: 500-204027-1 MS
Matrix: Water
Analysis Batch: 617314

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	60		20.0	76.2		mg/L		83	75 - 125

QC Sample Results

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

Job ID: 500-204027-1

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

Lab Sample ID: 500-204027-1 MSD
Matrix: Water
Analysis Batch: 617314

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	60		20.0	76.0		mg/L		82	75 - 125	0	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-617517/3
Matrix: Water
Analysis Batch: 617517

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			09/07/21 10:59	1

Lab Sample ID: LCS 500-617517/4
Matrix: Water
Analysis Batch: 617517

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	10.4		mg/L		104	90 - 119

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-617315/32
Matrix: Water
Analysis Batch: 617315

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			09/03/21 13:07	1

Lab Sample ID: LCS 500-617315/33
Matrix: Water
Analysis Batch: 617315

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.8		mg/L		104	88 - 123

Lab Sample ID: 500-204027-1 MS
Matrix: Water
Analysis Batch: 617315

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	170		20.0	183	4	mg/L		79	75 - 125

Lab Sample ID: 500-204027-1 MSD
Matrix: Water
Analysis Batch: 617315

Client Sample ID: MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	170		20.0	183	4	mg/L		78	75 - 125	0	20

University Park IL 60484-3101
phone 708 534 5200 fax 708 534 5211

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.

Client Contact KPRG and Associates Inc 14665 West Lisbon Road Suite 1A Brookfield WI 53154 (262) 781-0475 Phone (262) 781 0478 FAX Project Name Waukegan CCR Site Waukegan Station - Waukegan IL P O # 4502042830		Project Manager: Rich Gnat Tel/Fax (262) 781-0475		Site Contact: Mitchel Dolan Lab Contact: Diana Mockler		Date: 8/18/21 Carrier: FedEx		COC No ____ of ____ COCs						
		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y / N) 903 0 904.0 Radium 226/228 + Combine 6020A, 7470A 14 Metals & Mercury 6010C - Lithium 4500_F_C - Fluoride SM4500_CL_E - Chloride SM4500_SO4_E - Sulfate 2540C - TDS		500-204027 COC		Sampler For Lab Use Only: Walk-in Client Lab Sampling Job / SDG No 500-204027						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	4	4	4	1	1	1	1	Sample Specific Notes
1	MW-01	8/18	1151	G	W	5	N	N	X	X	X	X	X	
2	MW-02	8/18	1249	G	W	5								
3	MW-03	8/18	1344	G	W	5								
4	MW-04	8/18	1450	G	W	5								
5	MW-16	8/18		G	W	5								
6	Duplicate	8/18	-	G	W	5			↓	↓	↓	↓	↓	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4 4 4 1 1 1 1							
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months							
Special Instructions/QC Requirements & Comments: Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium										CCR 33,3.7				
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd		Corr'd		Therm ID No						
Relinquished by Mitchel Dolan <i>MDO</i>		Company KPRG		Date/Time 8/18/21 1730		Received by FedEx		Company		Date/Time 8/18/21 / 1730				
Relinquished by		Company		Date/Time		Received by		Company		Date/Time				
Relinquished by		Company		Date/Time		Received in Laboratory by Stephonell Hemmerdey		Company ETA-CHI		Date/Time 8/19/21 0925				

TestAmerica Chicago

2417 Bond Street


University Park IL 60484-3101
 phone 708 534 5200 fax 708 534 5211

Chain of Custody Record



TestAmerica Laboratories, Inc.

Regulatory Program: DW NPDES RCRA Other

Client Contact KPRG and Associates Inc 14665 West Lisbon Road Suite 1A Brookfield WI 53154 (262) 781-0475 Phone (262) 781 0478 FAX			Project Manager: Rich Gnat Tel/Fax: (262) 781-0475			Site Contact: Mitchel Dolan Lab Contact: Diana Mockler			Date: 8/19/21 Carrier: FedEx			COC No 1 of 1 COCs																																																													
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			Filtered Sample (Y/N) Perform MS / MSD (Y/N) 903 0 904 0 Radium 226/228 + Combine 6020A, 7470A - 14 Metals & Mercury 6010C - Lithium 4500_F_C - Fluoride SM4500_CLE - Chloride SM4500_SO4_E - Sulfate 2540C - TDS			500-204027 COC 			Sampler For Lab Use Only: Walk-in Client Lab Sampling			Job / SDG No 500-204027																																																													
<table border="1"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix</th> <th># of Cont.</th> <th>Filtered</th> <th>MS</th> <th>MSD</th> <th>903</th> <th>904</th> <th>6020A</th> <th>6010C</th> <th>4500</th> <th>SM4500</th> <th>SM4500</th> <th>2540C</th> </tr> </thead> <tbody> <tr> <td>MW-11</td> <td>8/19</td> <td>1134</td> <td>G</td> <td>W</td> <td>5</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>MW-14</td> <td>8/19</td> <td>1239</td> <td>G</td> <td>W</td> <td>5</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>MW-09</td> <td>8/19</td> <td>1316</td> <td>G</td> <td>W</td> <td>5</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </tbody> </table>									Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered	MS	MSD	903	904	6020A	6010C	4500	SM4500	SM4500	2540C	MW-11	8/19	1134	G	W	5	N	N	X	X	X	X	X	X	X	X	X	MW-14	8/19	1239	G	W	5			X	X	X	X	X	X	X	X	X	MW-09	8/19	1316	G	W	5			X	X	X	X	X	X
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered	MS	MSD	903	904	6020A	6010C	4500	SM4500	SM4500	2540C																																																									
MW-11	8/19	1134	G	W	5	N	N	X	X	X	X	X	X	X	X	X																																																									
MW-14	8/19	1239	G	W	5			X	X	X	X	X	X	X	X	X																																																									
MW-09	8/19	1316	G	W	5			X	X	X	X	X	X	X	X	X																																																									
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other									Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																																																																
Possible Hazard Identification. Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown									Special Instructions/QC Requirements & Comments. Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium																																																																
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No			Cooler Temp (°C) Obs'd 1.4 Corr'd _____ Therm ID No _____			Relinquished by Mitchel Dolan <i>MMD</i>			Company KPRG																																																													
Relinquished by			Company			Date/Time 8/19/1700			Received by FedEx			Company																																																													
Relinquished by			Company			Date/Time			Received by			Company																																																													
Relinquished by			Company			Date/Time			Received in Laboratory by <i>Stephanie Hernandez</i>			Company ETA-UH																																																													
Relinquished by			Company			Date/Time			Received by			Company																																																													
Relinquished by			Company			Date/Time			Received by			Company																																																													

ORIGIN ID: FEPA (262) 622-1143

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 18AUG21
ACTWTG: 54.80 LB
CAD: 6994084/SSFE2202
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO: TEST AMERICA

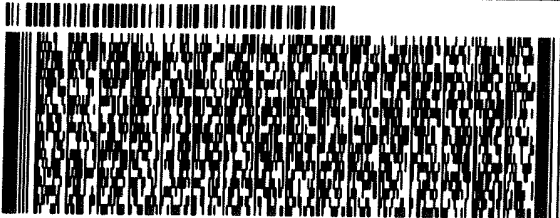
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UNIVERSITY PARK IL 60484

(999) 999-9999

REF:

DEPT:



Part # 156297/4337/FED/EXP 03/22



IN ID: FEPA (262) 622-1143

AND ASSOCIATES
PLAZA DR STE 106

10NT, IL 60559
ID-STATES US

SHIP DATE: 18AUG21
ACTWTG: 45.15 LB
CAD: 6994084/SSFE2202
DIMS: 24x13x14 IN

BILL THIRD PARTY

500-204027 Wayb

TO TEST AMERICA

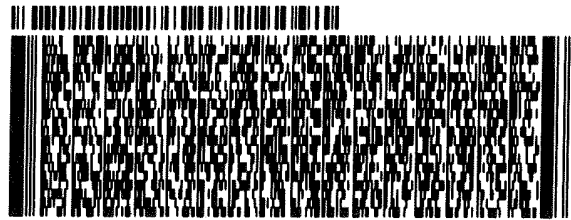
2417 BOND ST

UNIVERSITY PARK IL 60484

(999) 999-9999

REF:

DEPT:



AN 1060/01202127

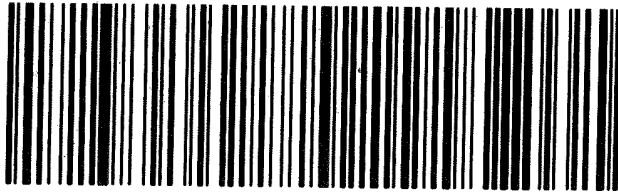
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STANDARD OVERNIGHT

79 JOTA

0201

AHS
60484
IL-US ORD



4 of 4

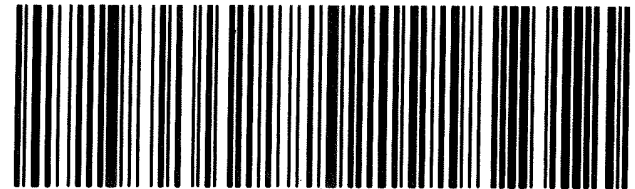
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STANDARD OVERNIGHT

0201

79 JOTA

AHS
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Part # 156297/4337/FED/EXP 03/22

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ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 19AUG21
ACTWGT: 54.35 LB
CAD: 6994085/SSFE2202
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRDW2 EXP 03/22
07447209/11 0321



500-204027 Wayb

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL 60484

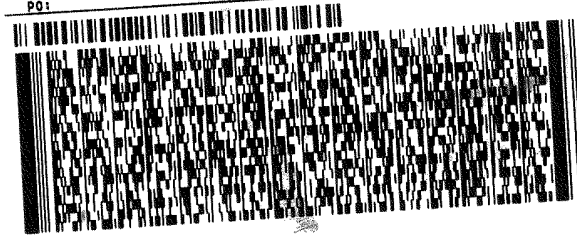
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REF:

DEPT:

INU:

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Express



AN11001/211606147

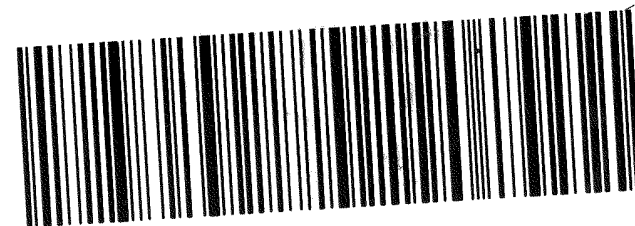
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FRI - 20 AUG 4:30P
STANDARD OVERNIGHT

79 JOTA

0201

60484
IL-US ORD



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Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-1

Login Number: 204027

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Hernandez, Stephanie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3,3.7,0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab Chronicle

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

Job ID: 500-204027-1

Client Sample ID: MW-01
Date Collected: 08/18/21 11:51
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 12:41	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:34	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	616465	08/28/21 14:23	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:04	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615182	08/19/21 23:31	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		2	617314	09/03/21 14:11	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 11:53	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	617315	09/03/21 13:08	MS	TAL CHI

Client Sample ID: MW-02
Date Collected: 08/18/21 12:49
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 12:44	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:38	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	616465	08/28/21 14:27	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:06	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615182	08/19/21 23:34	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	617314	09/03/21 14:09	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 11:56	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	617315	09/03/21 13:11	MS	TAL CHI

Client Sample ID: MW-03
Date Collected: 08/18/21 13:44
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 12:48	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:42	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	616465	08/28/21 14:30	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:19	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-204027-1

Client Sample ID: MW-03

Lab Sample ID: 500-204027-3

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	615182	08/19/21 23:37	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	617314	09/03/21 14:09	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 11:59	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	617315	09/03/21 13:12	MS	TAL CHI

Client Sample ID: MW-04

Lab Sample ID: 500-204027-4

Date Collected: 08/18/21 14:50

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 12:51	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	616465	08/28/21 14:34	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:21	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615182	08/19/21 23:39	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	617314	09/03/21 14:09	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 12:02	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	617315	09/03/21 13:13	MS	TAL CHI

Client Sample ID: MW-16

Lab Sample ID: 500-204027-5

Date Collected: 08/18/21 16:19

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 12:54	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	616465	08/28/21 14:37	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:23	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615182	08/19/21 23:42	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	617314	09/03/21 14:12	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 12:05	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	617315	09/03/21 13:13	MS	TAL CHI

Lab Chronicle

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

Job ID: 500-204027-1

Client Sample ID: Duplicate
Date Collected: 08/18/21 00:00
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 13:08	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	616465	08/28/21 14:41	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:25	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615182	08/19/21 23:44	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	617314	09/03/21 14:14	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 12:18	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	617315	09/03/21 13:14	MS	TAL CHI

Client Sample ID: MW-11
Date Collected: 08/19/21 11:34
Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 13:11	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	616465	08/28/21 14:44	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:28	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615457	08/23/21 03:15	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	617314	09/03/21 14:14	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 12:21	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	617315	09/03/21 13:14	MS	TAL CHI

Client Sample ID: MW-14
Date Collected: 08/19/21 12:39
Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 13:14	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 18:59	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616465	08/28/21 14:48	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:30	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-204027-1

Client Sample ID: MW-14

Lab Sample ID: 500-204027-8

Date Collected: 08/19/21 12:39

Matrix: Water

Date Received: 08/20/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	615457	08/23/21 03:18	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	617314	09/03/21 15:11	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 12:24	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		1	617315	09/03/21 13:43	MS	TAL CHI

Client Sample ID: MW-09

Lab Sample ID: 500-204027-9

Date Collected: 08/19/21 13:46

Matrix: Water

Date Received: 08/20/21 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	618108	09/10/21 13:18	JJB	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	616213	08/26/21 19:03	FXG	TAL CHI
Total Recoverable	Prep	3005A			615969	08/26/21 08:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	616465	08/28/21 14:58	FXG	TAL CHI
Total/NA	Prep	7470A			615608	08/23/21 13:20	MJG	TAL CHI
Total/NA	Analysis	7470A		1	615765	08/24/21 10:32	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	615457	08/23/21 03:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	617314	09/03/21 14:20	MS	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	617517	09/07/21 12:28	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	617315	09/03/21 13:15	MS	TAL CHI

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 500-204027-1

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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ANALYTICAL REPORT

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

Laboratory Job ID: 500-204027-2
Client Project/Site: Waukegan CCR

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

Attn: Richard Gnat



Authorized for release by:
9/24/2021 8:04:54 AM

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

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

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

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Case Narrative

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

Job ID: 500-204027-2

Job ID: 500-204027-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-204027-2

Comments

No additional comments.

Receipt

The samples were received on 8/19/2021 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4° C, 3.3° C and 3.7° C.

RAD

Methods 903.0, 9315: Radium-226 prep batch 160-524265:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-01 (500-204027-1), MW-02 (500-204027-2), MW-03 (500-204027-3), (LCS 160-524265/1-A), (MB 160-524265/23-A), (500-204022-H-5-A) and (500-204022-G-5-A DU)

Methods 903.0, 9315: Radium 226 prep batch 160-524328

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

MW-04 (500-204027-4), MW-16 (500-204027-5), Duplicate (500-204027-6), MW-11 (500-204027-7), MW-14 (500-204027-8), MW-09 (500-204027-9), (LCS 160-524328/1-A), (MB 160-524328/23-A) and (500-204027-D-4-A DU)

Methods 904.0, 9320: Radium 228 prep batch 160-524342

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

MW-04 (500-204027-4), MW-16 (500-204027-5), Duplicate (500-204027-6), MW-11 (500-204027-7), MW-14 (500-204027-8), MW-09 (500-204027-9), (LCS 160-524342/1-A), (MB 160-524342/23-A) and (500-204027-D-4-B DU)

Methods 904.0, 9320: Radium 228 prep batch 160-524267

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

MW-01 (500-204027-1), MW-02 (500-204027-2), MW-03 (500-204027-3), (LCS 160-524267/1-A), (MB 160-524267/23-A), (500-204022-H-5-B) and (500-204022-G-5-B DU)

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

Method Summary

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

Job ID: 500-204027-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

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

Job ID: 500-204027-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204027-1	MW-01	Water	08/18/21 11:51	08/19/21 09:25
500-204027-2	MW-02	Water	08/18/21 12:49	08/19/21 09:25
500-204027-3	MW-03	Water	08/18/21 13:44	08/19/21 09:25
500-204027-4	MW-04	Water	08/18/21 14:50	08/19/21 09:25
500-204027-5	MW-16	Water	08/18/21 16:19	08/19/21 09:25
500-204027-6	Duplicate	Water	08/18/21 00:00	08/19/21 09:25
500-204027-7	MW-11	Water	08/19/21 11:34	08/20/21 09:30
500-204027-8	MW-14	Water	08/19/21 12:39	08/20/21 09:30
500-204027-9	MW-09	Water	08/19/21 13:46	08/20/21 09:30

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Client Sample Results

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

Job ID: 500-204027-2

Client Sample ID: MW-01

Lab Sample ID: 500-204027-1

Date Collected: 08/18/21 11:51

Matrix: Water

Date Received: 08/19/21 09:25

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.159	U	0.0887	0.0888	1.00	0.159	pCi/L	08/26/21 15:39	09/21/21 11:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.4		40 - 110					08/26/21 15:39	09/21/21 11:49	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.471	U	0.247	0.247	1.00	0.471	pCi/L	08/26/21 16:14	09/17/21 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.4		40 - 110					08/26/21 16:14	09/17/21 13:23	1
Y Carrier	89.7		40 - 110					08/26/21 16:14	09/17/21 13:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.471	U	0.262	0.262	5.00	0.471	pCi/L		09/23/21 16:13	1

Client Sample ID: MW-02

Lab Sample ID: 500-204027-2

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.211	U	0.114	0.114	1.00	0.211	pCi/L	08/26/21 15:39	09/21/21 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					08/26/21 15:39	09/21/21 11:30	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.525	U	0.328	0.330	1.00	0.525	pCi/L	08/26/21 16:14	09/17/21 13:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.8		40 - 110					08/26/21 16:14	09/17/21 13:23	1
Y Carrier	88.6		40 - 110					08/26/21 16:14	09/17/21 13:23	1

Client Sample Results

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

Job ID: 500-204027-2

Client Sample ID: MW-02
Date Collected: 08/18/21 12:49
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-2
Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.525	U	0.347	0.349	5.00	0.525	pCi/L		09/23/21 16:13	1

Client Sample ID: MW-03
Date Collected: 08/18/21 13:44
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-3
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.163	U	0.101	0.102	1.00	0.163	pCi/L	08/26/21 15:39	09/21/21 11:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					08/26/21 15:39	09/21/21 11:31	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.564		0.274	0.278	1.00	0.397	pCi/L	08/26/21 16:14	09/17/21 13:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					08/26/21 16:14	09/17/21 13:27	1
Y Carrier	87.5		40 - 110					08/26/21 16:14	09/17/21 13:27	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.656		0.292	0.296	5.00	0.397	pCi/L		09/23/21 16:13	1

Client Sample ID: MW-04
Date Collected: 08/18/21 14:50
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-4
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.158		0.107	0.108	1.00	0.152	pCi/L	08/27/21 10:49	09/21/21 12:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		40 - 110					08/27/21 10:49	09/21/21 12:14	1

Client Sample Results

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

Job ID: 500-204027-2

Client Sample ID: MW-04
Date Collected: 08/18/21 14:50
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-4
Matrix: Water

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.439	U	0.279	0.281	1.00	0.439	pCi/L	08/27/21 12:08	09/16/21 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.8		40 - 110					08/27/21 12:08	09/16/21 12:12	1
Y Carrier	81.1		40 - 110					08/27/21 12:08	09/16/21 12:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.523		0.299	0.301	5.00	0.439	pCi/L		09/23/21 16:12	1

Client Sample ID: MW-16
Date Collected: 08/18/21 16:19
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-5
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.162	U	0.0908	0.0908	1.00	0.162	pCi/L	08/27/21 10:49	09/21/21 12:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		40 - 110					08/27/21 10:49	09/21/21 12:14	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.422	U	0.268	0.270	1.00	0.422	pCi/L	08/27/21 12:08	09/16/21 12:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		40 - 110					08/27/21 12:08	09/16/21 12:12	1
Y Carrier	83.4		40 - 110					08/27/21 12:08	09/16/21 12:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.422	U	0.283	0.285	5.00	0.422	pCi/L		09/23/21 16:12	1

Client Sample Results

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

Job ID: 500-204027-2

Client Sample ID: Duplicate
Date Collected: 08/18/21 00:00
Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-6
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.379		0.133	0.137	1.00	0.143	pCi/L	08/27/21 10:49	09/21/21 12:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					08/27/21 10:49	09/21/21 12:14	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.526		0.273	0.277	1.00	0.402	pCi/L	08/27/21 12:08	09/16/21 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					08/27/21 12:08	09/16/21 12:13	1
Y Carrier	73.6		40 - 110					08/27/21 12:08	09/16/21 12:13	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.905		0.304	0.309	5.00	0.402	pCi/L		09/23/21 16:12	1

Client Sample ID: MW-11
Date Collected: 08/19/21 11:34
Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-7
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.518		0.151	0.158	1.00	0.142	pCi/L	08/27/21 10:49	09/21/21 13:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110					08/27/21 10:49	09/21/21 13:34	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.37		0.318	0.342	1.00	0.359	pCi/L	08/27/21 12:08	09/16/21 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.7		40 - 110					08/27/21 12:08	09/16/21 12:13	1
Y Carrier	81.9		40 - 110					08/27/21 12:08	09/16/21 12:13	1

Client Sample Results

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

Job ID: 500-204027-2

Client Sample ID: MW-11

Lab Sample ID: 500-204027-7

Date Collected: 08/19/21 11:34

Matrix: Water

Date Received: 08/20/21 09:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.89		0.352	0.377	5.00	0.359	pCi/L		09/23/21 16:12	1

Client Sample ID: MW-14

Lab Sample ID: 500-204027-8

Date Collected: 08/19/21 12:39

Matrix: Water

Date Received: 08/20/21 09:30

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.211	U	0.121	0.121	1.00	0.211	pCi/L	08/27/21 10:49	09/21/21 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					08/27/21 10:49	09/21/21 13:35	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.597	U	0.356	0.356	1.00	0.597	pCi/L	08/27/21 12:08	09/16/21 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.8		40 - 110					08/27/21 12:08	09/16/21 12:13	1
Y Carrier	81.9		40 - 110					08/27/21 12:08	09/16/21 12:13	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.597	U	0.376	0.376	5.00	0.597	pCi/L		09/23/21 16:12	1

Client Sample ID: MW-09

Lab Sample ID: 500-204027-9

Date Collected: 08/19/21 13:46

Matrix: Water

Date Received: 08/20/21 09:30

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.176	U	0.0898	0.0898	1.00	0.176	pCi/L	08/27/21 10:49	09/21/21 13:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		40 - 110					08/27/21 10:49	09/21/21 13:35	1

Client Sample Results

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

Job ID: 500-204027-2

Client Sample ID: MW-09

Lab Sample ID: 500-204027-9

Date Collected: 08/19/21 13:46

Matrix: Water

Date Received: 08/20/21 09:30

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.457	U	0.285	0.287	1.00	0.457	pCi/L	08/27/21 12:08	09/16/21 12:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		40 - 110					08/27/21 12:08	09/16/21 12:13	1
Y Carrier	82.2		40 - 110					08/27/21 12:08	09/16/21 12:13	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.457	U	0.299	0.301	5.00	0.457	pCi/L		09/23/21 16:12	1



Definitions/Glossary

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

Job ID: 500-204027-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

QC Association Summary

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

Job ID: 500-204027-2

Rad

Prep Batch: 524265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	PrecSep-21	
500-204027-2	MW-02	Total/NA	Water	PrecSep-21	
500-204027-3	MW-03	Total/NA	Water	PrecSep-21	
MB 160-524265/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-524265/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 524267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-1	MW-01	Total/NA	Water	PrecSep_0	
500-204027-2	MW-02	Total/NA	Water	PrecSep_0	
500-204027-3	MW-03	Total/NA	Water	PrecSep_0	
MB 160-524267/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-524267/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 524328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-4	MW-04	Total/NA	Water	PrecSep-21	
500-204027-5	MW-16	Total/NA	Water	PrecSep-21	
500-204027-6	Duplicate	Total/NA	Water	PrecSep-21	
500-204027-7	MW-11	Total/NA	Water	PrecSep-21	
500-204027-8	MW-14	Total/NA	Water	PrecSep-21	
500-204027-9	MW-09	Total/NA	Water	PrecSep-21	
MB 160-524328/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-524328/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-204027-4 DU	MW-04	Total/NA	Water	PrecSep-21	

Prep Batch: 524342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204027-4	MW-04	Total/NA	Water	PrecSep_0	
500-204027-5	MW-16	Total/NA	Water	PrecSep_0	
500-204027-6	Duplicate	Total/NA	Water	PrecSep_0	
500-204027-7	MW-11	Total/NA	Water	PrecSep_0	
500-204027-8	MW-14	Total/NA	Water	PrecSep_0	
500-204027-9	MW-09	Total/NA	Water	PrecSep_0	
MB 160-524342/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-524342/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-204027-4 DU	MW-04	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 500-204027-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-524265/23-A
Matrix: Water
Analysis Batch: 528286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 524265

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.178	U	0.0776	0.0778	1.00	0.178	pCi/L	08/26/21 15:39	09/21/21 11:31	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	87.7		40 - 110			08/26/21 15:39	09/21/21 11:31	1		

Lab Sample ID: LCS 160-524265/1-A
Matrix: Water
Analysis Batch: 527814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 524265

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.98		1.21	1.00	0.169	pCi/L	97	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	94.1		40 - 110						

Lab Sample ID: MB 160-524328/23-A
Matrix: Water
Analysis Batch: 527825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 524328

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.203	U	0.126	0.126	1.00	0.203	pCi/L	08/27/21 10:49	09/21/21 15:26	1
Carrier	MB	MB	Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	87.2		40 - 110			08/27/21 10:49	09/21/21 15:26	1		

Lab Sample ID: LCS 160-524328/1-A
Matrix: Water
Analysis Batch: 528287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 524328

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.81		1.29	1.00	0.202	pCi/L	104	75 - 125
Carrier	LCS	LCS	Limits			Prepared	Analyzed	Dil Fac	
	%Yield	Qualifier							
Ba Carrier	74.7		40 - 110						

Lab Sample ID: 500-204027-4 DU
Matrix: Water
Analysis Batch: 528287

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 524328

Analyte	Sample Result	Sample Qual	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
			Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.158		<0.183	U	0.108	1.00	0.183	pCi/L	0.38	1

Euofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-204027-2

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

Lab Sample ID: 500-204027-4 DU
Matrix: Water
Analysis Batch: 528287

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 524328

Carrier	DU	DU	Qualifier	Limits
Ba Carrier	94.9			40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-524267/23-A
Matrix: Water
Analysis Batch: 527619

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 524267

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	<0.395	U	0.223	0.223	1.00	0.395	pCi/L	08/26/21 16:14	09/17/21 13:27	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	87.7		40 - 110		08/26/21 16:14	09/17/21 13:27	1			
Y Carrier	87.5		40 - 110		08/26/21 16:14	09/17/21 13:27	1			

Lab Sample ID: LCS 160-524267/1-A
Matrix: Water
Analysis Batch: 527466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 524267

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.	
									Limits	
Radium-228	9.32	9.141		1.11	1.00	0.418	pCi/L	98	75 - 125	
Carrier	LCS	LCS	Limits							
Ba Carrier	94.1		40 - 110							
Y Carrier	81.1		40 - 110							

Lab Sample ID: MB 160-524342/23-A
Matrix: Water
Analysis Batch: 527397

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 524342

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	<0.424	U	0.251	0.251	1.00	0.424	pCi/L	08/27/21 12:08	09/16/21 12:20	1
Carrier	MB	MB	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	87.2		40 - 110		08/27/21 12:08	09/16/21 12:20	1			
Y Carrier	85.2		40 - 110		08/27/21 12:08	09/16/21 12:20	1			

Lab Sample ID: LCS 160-524342/1-A
Matrix: Water
Analysis Batch: 527396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 524342

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.	
									Limits	
Radium-228	9.33	9.679		1.22	1.00	0.510	pCi/L	104	75 - 125	

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-204027-2

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

Lab Sample ID: LCS 160-524342/1-A
Matrix: Water
Analysis Batch: 527396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 524342

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	74.7		40 - 110
Y Carrier	79.3		40 - 110

Lab Sample ID: 500-204027-4 DU
Matrix: Water
Analysis Batch: 527396

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 524342

Analyte	Sample Sample		DU DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual						
Radium-228	<0.439	U	0.4157		0.273	1.00	0.415	pCi/L	0.09	1

Carrier	DU DU		Limits
	%Yield	Qualifier	
Ba Carrier	94.9		40 - 110
Y Carrier	82.2		40 - 110

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University Park IL 60484-3101
phone 708 534 5200 fax 708 534 5211

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc.


Client Contact KPRG and Associates Inc 14665 West Lisbon Road Suite 1A Brookfield WI 53154 (262) 781-0475 Phone (262) 781 0478 FAX Project Name Waukegan CCR Site Waukegan Station - Waukegan IL P O # 4502042830		Project Manager: Rich Gnat Tel/Fax (262) 781-0475		Site Contact: Mitchel Dolan Lab Contact: Diana Mockler		Date: 8/18/21 Carrier: FedEx		COC No ____ of ____ COCs						
		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y / N) 903 0 904.0 Radium 226/228 + Combine 6020A, 7470A 14 Metals & Mercury 6010C - Lithium 4500_F_C - Fluoride SM4500_CL_E - Chloride SM4500_SO4_E - Sulfate 2540C - TDS		500-204027 COC		Sampler For Lab Use Only: Walk-in Client Lab Sampling Job / SDG No 500-204027						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	4	4	4	1	1	1	1	Sample Specific Notes
1	MW-01	8/18	1151	G	W	5	N	N	X	X	X	X	X	
2	MW-02	8/18	1249	G	W	5								
3	MW-03	8/18	1344	G	W	5								
4	MW-04	8/18	1450	G	W	5								
5	MW-16	8/18		G	W	5								
6	Duplicate	8/18	-	G	W	5			↓	↓	↓	↓	↓	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4 4 4 1 1 1 1							
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months							
Special Instructions/QC Requirements & Comments: Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium							CCR 3 3, 3.7							
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd		Corr'd		Therm ID No						
Relinquished by Mitchel Dolan <i>MDO</i>		Company KPRG		Date/Time 8/18/21 1730		Received by FedEx		Company		Date/Time 8/18/21 / 1730				
Relinquished by		Company		Date/Time		Received by		Company		Date/Time				
Relinquished by		Company		Date/Time		Received in Laboratory by Stephonell Hemmerdey		Company ETA-CHI		Date/Time 8/19/21 0925				

Chain of Custody Record

University Park IL 60484-3101
phone 708 534 5200 fax 708 534 5211

Regulatory Program: DW NPDES RCRA Other

TestAmerica Laboratories, Inc.

Client Contact KPRG and Associates Inc 14665 West Lisbon Road Suite 1A Brookfield WI 53154 (262) 781-0475 Phone (262) 781 0478 FAX Project Name Waukegan CCR Site Waukegan Station - Waukegan IL P O # 4502042830		Project Manager: Rich Gnat Tel/Fax: (262) 781-0475		Site Contact: Mitchel Dolan Lab Contact: Diana Mockler		Date: 8/19/21 Carrier: FedEx		COC No 1 of 1 COCs	
		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y / N) 903 0 904 0 Radium 226/228 + Combine 6020A, 7470A - 14 Metals & Mercury 6010C - Lithium 4500_F_C - Fluoride SM4500_CL_E - Chloride SM4500_SO4_E - Sulfate 2540C - TDS		 500-204027 COC		Sampler	
								For Lab Use Only: Walk-in Client Lab Sampling	
						Job / SDG No 500-204027			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes		
7	MW-11	8/19	1134	G	W	5	N	N	X
8	MW-14	8/19	1239	G	W	5			X
9	MW-09	8/19	1316	G	W	5			X
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4 4 4 1 1 1 1		
Possible Hazard Identification. Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		
Special Instructions/QC Requirements & Comments. Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium									
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd 0.4		Corr'd		Therm ID No	
Relinquished by Mitchel Dolan <i>MMD</i>		Company KPRG		Date/Time 8/19/1700		Received by FedEx		Company	
Relinquished by		Company		Date/Time		Received by		Company	
Relinquished by		Company		Date/Time		Received in Laboratory by Stephanie Hernandez		Company ETA-UH	

ORIGIN ID: FEPA (262) 622-1143

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 18AUG21
ACTWTG: 54.80 LB
CAD: 6994084/SSFE2202
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO: TEST AMERICA

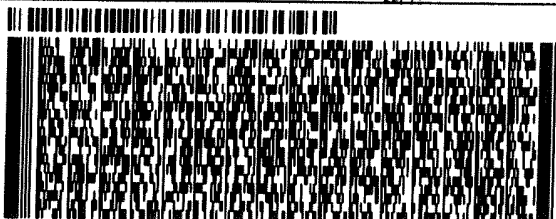
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UNIVERSITY PARK IL 60484

(999) 999-9999

REF:

DEPT:



3 of 4

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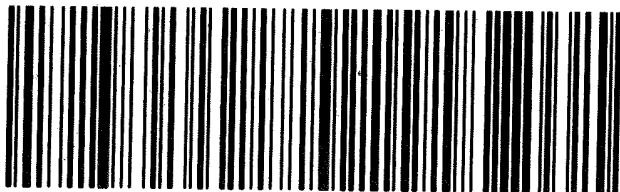
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79 JOTA

0201

THU - 19 AUG 4:30P
STANDARD OVERNIGHT

AHS
60484
IL-US ORD



IN ID: FEPA (262) 622-1143

AND ASSOCIATES
PLAZA DR STE 106

10NT, IL 60559
ID-STATES US

SHIP DATE: 18AUG21
ACTWTG: 45.15 LB
CAD: 6994084/SSFE2202
DIMS: 24x13x14 IN

BILL THIRD PARTY

500-204027 Wayb

TO TEST AMERICA

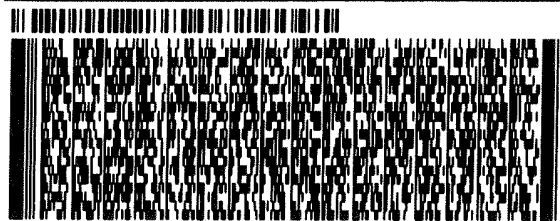
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UNIVERSITY PARK IL 60484

(999) 999-9999

REF:

DEPT:



4 of 4

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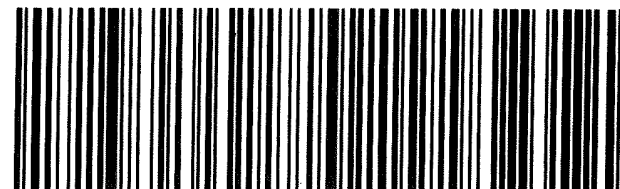
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THU - 19 AUG 4:30P
STANDARD OVERNIGHT

AHS
60484
IL-US ORD



PART # 156297/4337/FEDX/EXP/03/22

PART # 156297/4337/FEDX/EXP/03/22

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ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 19AUG21
ACTWGT: 54.35 LB
CAD: 6994085/SSFE2202
DIMS: 24x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RRDW2 EXP 03/22
07447209/11 US3



500-204027 Wayb

TO

TEST AMERICA
2417 BOND ST

UNIVERSITY PARK IL 60484

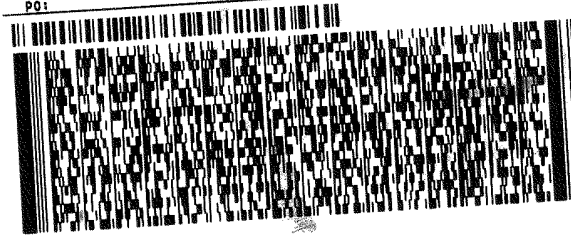
(708) 634-6200

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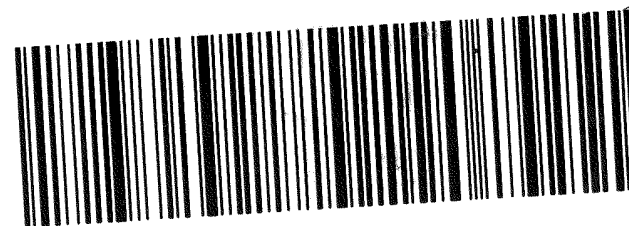
3 of 3
MPS# 2827 6233 9413
0263
Metr# 2827 6233 9398

FRI - 20 AUG 4:30P
STANDARD OVERNIGHT

0201

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60484
IL-US ORD



Eurofins TestAmerica, Chicago

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

Chain of Custody Record



Environment Testing
America



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J		Carrier Tracking No(s):		COC No: 500-151694.1	
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@Eurofins.com		State of Origin: Illinois		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #:		500-204027-2	
Address: 13715 Rider Trail North,		Due Date Requested: 9/21/2021		Analysis Requested:		Preservation Codes:	
City: Earth City		TAT Requested (days):		903.0/PreSep_21 Standard Target List		A - HCL	
State, Zip: MO, 63045		PO #:		904.0/PreSep_0 Standard Target List		B - NaOH	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:		Perform MS/MSD (Yes or No)		M - Hexane	
Email:		Project #:		Field Filtered Sample (Yes or No)		N - None	
Project Name: Waukegan CCR		50011597		Matrix (Water, Swold, Oil, Grease, etc)		O - AsNaO2	
Site: NRG Midwest Generation Waukegan		SSOW#:		Sample Type (C=comp, G=grab)		P - Na2O4S	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Q - Na2SO3	
MW-01 (500-204027-1)	8/18/21	11:51	Central	Water	X	R - Na2SO3	
MW-02 (500-204027-2)	8/18/21	12:49	Central	Water	X	S - H2SO4	
MW-03 (500-204027-3)	8/18/21	13:44	Central	Water	X	T - TSP Dodecahydrate	
MW-04 (500-204027-4)	8/18/21	14:50	Central	Water	X	U - Acetone	
MW-16 (500-204027-5)	8/18/21	16:19	Central	Water	X	V - MCAA	
Duplicate (500-204027-6)	8/18/21		Central	Water	X	W - pH 4-5	
						Z - other (specify)	
Total Number of Containers		X		Special Instructions/Note:			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			
3		X		Batch QC must be performed (dup, spikes, etc) - no NCMS concerning limited volume;			

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

Possible Hazard Identification

Unconfirmed

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

Empty Kit Relinquished by: Date: Time: Method of Shipment: Return To Client Disposal By Lab Archive For Months

Relinquished by: Date/Time: 8/19/21 15:00 Company: *[Signature]* Received by: **FED EX** Date/Time: Company: **FIA STC**

Relinquished by: Date/Time: Company: Received by: *[Signature]* Date/Time: 8/20/21 0046 Company: **FIA STC**

Relinquished by: Date/Time: Company: Received by: *[Signature]* Date/Time: Company: **FIA STC**

Custody Seals Intact: Yes No Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:



Chain of Custody Record



Environment Testing
America



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-151733.1																																																												
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@Eurofins.com	State of Origin: Illinois																																																												
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Page: 1 of 1																																																												
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 9/23/2021	Job #: 500-204027-2																																																												
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - NCA W - pH 4-5 X - EDTA Y - other (specify)																																																												
Project Name: Waukegan CCR		PO #:	<table border="1"> <thead> <tr> <th>Sample ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (Water, Sewage, On-site, Other)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>903.0/PreSep_21 Standard Target List</th> <th>904.0/PreSep_0 Standard Target List</th> <th>Ra226Ra228_GFPc</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>MW-11 (500-204027-7)</td> <td>8/19/21</td> <td>11:34 Central</td> <td>Water</td> <td>Water</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.</td> </tr> <tr> <td>MW-14 (500-204027-8)</td> <td>8/19/21</td> <td>12:39 Central</td> <td>Water</td> <td>Water</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.</td> </tr> <tr> <td>MW-09 (500-204027-9)</td> <td>8/19/21</td> <td>13:46 Central</td> <td>Water</td> <td>Water</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Sewage, On-site, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:	MW-11 (500-204027-7)	8/19/21	11:34 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	MW-14 (500-204027-8)	8/19/21	12:39 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	MW-09 (500-204027-9)	8/19/21	13:46 Central	Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.												
Sample ID (Lab ID)	Sample Date	Sample Time		Sample Type (C=Comp, G=grab)	Matrix (Water, Sewage, On-site, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:																																																			
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MW-09 (500-204027-9)	8/19/21	13:46 Central		Water	Water	X	X	X	X		3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.																																																			
Site: NRG Midwest Generation Waukegan		Project #: 50011597																																																													
		SSOW#:																																																													

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

Possible Hazard Identification

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

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

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

Relinquished by: *Min Lamb* Date/Time: 8/20/21 1500 Company: EPA-CA
 Relinquished by: **FED EX** Date/Time: 9/21/21 0812 Company: EPA STL
 Relinquished by: _____ Date/Time: _____ Company: _____

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

Cooler Temperature(s) °C and Other Remarks: _____



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-2

Login Number: 204027

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Hernandez, Stephanie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3,3.7,0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-2

Login Number: 204027

List Number: 2

Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/20/21 06:09 PM

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

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-2

Login Number: 204027

List Number: 3

Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/21/21 12:21 PM

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

Lab Chronicle

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

Job ID: 500-204027-2

Client Sample ID: MW-01

Lab Sample ID: 500-204027-1

Date Collected: 08/18/21 11:51

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524265	08/26/21 15:39	MJ	TAL SL
Total/NA	Analysis	903.0		1	527841	09/21/21 11:49	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524267	08/26/21 16:14	MJ	TAL SL
Total/NA	Analysis	904.0		1	527565	09/17/21 13:23	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528684	09/23/21 16:13	SCB	TAL SL

Client Sample ID: MW-02

Lab Sample ID: 500-204027-2

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524265	08/26/21 15:39	MJ	TAL SL
Total/NA	Analysis	903.0		1	528286	09/21/21 11:30	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524267	08/26/21 16:14	MJ	TAL SL
Total/NA	Analysis	904.0		1	527565	09/17/21 13:23	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528684	09/23/21 16:13	SCB	TAL SL

Client Sample ID: MW-03

Lab Sample ID: 500-204027-3

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524265	08/26/21 15:39	MJ	TAL SL
Total/NA	Analysis	903.0		1	528286	09/21/21 11:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524267	08/26/21 16:14	MJ	TAL SL
Total/NA	Analysis	904.0		1	527619	09/17/21 13:27	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528684	09/23/21 16:13	SCB	TAL SL

Client Sample ID: MW-04

Lab Sample ID: 500-204027-4

Date Collected: 08/18/21 14:50

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	528287	09/21/21 12:14	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:12	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

Lab Chronicle

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

Job ID: 500-204027-2

Client Sample ID: MW-16

Date Collected: 08/18/21 16:19

Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	528287	09/21/21 12:14	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:12	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

Client Sample ID: Duplicate

Date Collected: 08/18/21 00:00

Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	528287	09/21/21 12:14	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

Client Sample ID: MW-11

Date Collected: 08/19/21 11:34

Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	527825	09/21/21 13:34	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

Client Sample ID: MW-14

Date Collected: 08/19/21 12:39

Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	527825	09/21/21 13:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

Lab Chronicle

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

Job ID: 500-204027-2

Client Sample ID: MW-09

Lab Sample ID: 500-204027-9

Date Collected: 08/19/21 13:46

Matrix: Water

Date Received: 08/20/21 09:30

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	527825	09/21/21 13:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

Laboratory References:

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



Accreditation/Certification Summary

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

Job ID: 500-204027-2

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	004553	11-30-21

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Tracer/Carrier Summary

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

Job ID: 500-204027-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
500-204027-1	MW-01	83.4	
500-204027-2	MW-02	81.8	
500-204027-3	MW-03	95.7	
500-204027-4	MW-04	92.8	
500-204027-4 DU	MW-04	94.9	
500-204027-5	MW-16	98.0	
500-204027-6	Duplicate	107	
500-204027-7	MW-11	97.7	
500-204027-8	MW-14	69.8	
500-204027-9	MW-09	83.1	
LCS 160-524265/1-A	Lab Control Sample	94.1	
LCS 160-524328/1-A	Lab Control Sample	74.7	
MB 160-524265/23-A	Method Blank	87.7	
MB 160-524328/23-A	Method Blank	87.2	

Tracer/Carrier Legend
Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-204027-1	MW-01	83.4	89.7
500-204027-2	MW-02	81.8	88.6
500-204027-3	MW-03	95.7	87.5
500-204027-4	MW-04	92.8	81.1
500-204027-4 DU	MW-04	94.9	82.2
500-204027-5	MW-16	98.0	83.4
500-204027-6	Duplicate	107	73.6
500-204027-7	MW-11	97.7	81.9
500-204027-8	MW-14	69.8	81.9
500-204027-9	MW-09	83.1	82.2
LCS 160-524267/1-A	Lab Control Sample	94.1	81.1
LCS 160-524342/1-A	Lab Control Sample	74.7	79.3
MB 160-524267/23-A	Method Blank	87.7	87.5
MB 160-524342/23-A	Method Blank	87.2	85.2

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

ANALYTICAL REPORT

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

Laboratory Job ID: 500-207904-1
Client Project/Site: Waukegan CCR

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

Attn: Richard Gnat



Authorized for release by:
11/24/2021 3:58:10 PM

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

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

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



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Case Narrative

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

Job ID: 500-207904-1

Job ID: 500-207904-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-207904-1

Comments

No additional comments.

Receipt

The samples were received on 11/4/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were -0.9° C, 0.1° C, 0.8° C, 0.8° C and 1.2° C.

Metals

Method 6010C: The continuing calibration verification (CCV) associated with batch 500-630849 recovered above the upper control limit for Lithium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MW-01 (500-207904-1), MW-02 (500-207904-2), MW-03 (500-207904-3) and MW-04 (500-207904-4).

Method 6020A: The Initial low level continuing calibration verification (ICVL) associated with batch 500-629571 recovered above the upper control limit for Beryllium. The samples associated with this ICVL were non-detects for the affected analyte; therefore, the data have been reported.

Method 6020A: The low level continuing calibration verification (CCVL) at line 116, associated with batch 500-629571 recovered above the upper control limit for Selenium. 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: KPRG and Associates, Inc.
Project/Site: Waukegan CCR

Job ID: 500-207904-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
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 TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

Job ID: 500-207904-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207904-1	MW-01	Water	11/03/21 12:23	11/04/21 10:10
500-207904-2	MW-02	Water	11/03/21 13:22	11/04/21 10:10
500-207904-3	MW-03	Water	11/03/21 14:24	11/04/21 10:10
500-207904-4	MW-04	Water	11/03/21 15:24	11/04/21 10:10
500-207904-5	MW-09	Water	11/04/21 13:24	11/05/21 09:55
500-207904-6	MW-11	Water	11/04/21 11:09	11/05/21 09:55
500-207904-7	MW-14	Water	11/04/21 12:20	11/05/21 09:55
500-207904-8	MW-16	Water	11/04/21 14:28	11/05/21 09:55
500-207904-9	Duplicate	Water	11/04/21 00:00	11/05/21 09:55

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

Client Sample Results

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

Job ID: 500-207904-1

Client Sample ID: MW-01

Lab Sample ID: 500-207904-1

Date Collected: 11/03/21 12:23

Matrix: Water

Date Received: 11/04/21 10:10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010	^+	0.010		mg/L		11/23/21 10:23	11/24/21 12:55	1

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		11/23/21 10:23	11/23/21 22:19	1
Arsenic	0.024		0.0010		mg/L		11/23/21 10:23	11/23/21 22:19	1
Barium	0.040		0.0025		mg/L		11/23/21 10:23	11/23/21 22:19	1
Beryllium	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:19	1
Boron	2.9		0.25		mg/L		11/23/21 10:23	11/24/21 11:46	5
Cadmium	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:19	1
Calcium	67		0.20		mg/L		11/23/21 10:23	11/23/21 22:19	1
Chromium	<0.0050		0.0050		mg/L		11/23/21 10:23	11/23/21 22:19	1
Cobalt	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:19	1
Lead	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:19	1
Molybdenum	0.026		0.0050		mg/L		11/23/21 10:23	11/23/21 22:19	1
Selenium	<0.0025		0.0025		mg/L		11/23/21 10:23	11/24/21 14:27	1
Thallium	<0.0020		0.0020		mg/L		11/23/21 10:23	11/23/21 22:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/16/21 10:15	11/17/21 07:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	440		10		mg/L			11/05/21 07:01	1
Chloride	60		6.0		mg/L			11/10/21 18:06	3
Fluoride	0.22		0.10		mg/L			11/16/21 19:26	1
Sulfate	180		50		mg/L			11/10/21 19:21	10

Client Sample ID: MW-02

Lab Sample ID: 500-207904-2

Date Collected: 11/03/21 13:22

Matrix: Water

Date Received: 11/04/21 10:10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010	^+	0.010		mg/L		11/23/21 10:23	11/24/21 12:58	1

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		11/23/21 10:23	11/23/21 22:23	1
Arsenic	0.0090		0.0010		mg/L		11/23/21 10:23	11/23/21 22:23	1
Barium	0.025		0.0025		mg/L		11/23/21 10:23	11/23/21 22:23	1
Beryllium	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:23	1
Boron	4.2		0.50		mg/L		11/23/21 10:23	11/24/21 11:49	10
Cadmium	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:23	1
Calcium	59		0.20		mg/L		11/23/21 10:23	11/23/21 22:23	1
Chromium	<0.0050		0.0050		mg/L		11/23/21 10:23	11/23/21 22:23	1
Cobalt	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:23	1
Lead	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:23	1
Molybdenum	0.030		0.0050		mg/L		11/23/21 10:23	11/23/21 22:23	1
Selenium	<0.0025		0.0025		mg/L		11/23/21 10:23	11/24/21 14:31	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-207904-1

Client Sample ID: MW-02

Lab Sample ID: 500-207904-2

Date Collected: 11/03/21 13:22

Matrix: Water

Date Received: 11/04/21 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020		mg/L		11/23/21 10:23	11/23/21 22:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/16/21 10:15	11/17/21 07:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		10		mg/L			11/05/21 07:04	1
Chloride	43		2.0		mg/L			11/10/21 18:06	1
Fluoride	0.63		0.10		mg/L			11/16/21 19:29	1
Sulfate	170		50		mg/L			11/10/21 19:22	10

Client Sample ID: MW-03

Lab Sample ID: 500-207904-3

Date Collected: 11/03/21 14:24

Matrix: Water

Date Received: 11/04/21 10:10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010	^+	0.010		mg/L		11/23/21 10:23	11/24/21 13:01	1

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		11/23/21 10:23	11/23/21 22:27	1
Arsenic	0.0071		0.0010		mg/L		11/23/21 10:23	11/23/21 22:27	1
Barium	0.036		0.0025		mg/L		11/23/21 10:23	11/23/21 22:27	1
Beryllium	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:27	1
Boron	3.2		0.50		mg/L		11/23/21 10:23	11/24/21 11:53	10
Cadmium	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:27	1
Calcium	120		0.20		mg/L		11/23/21 10:23	11/23/21 22:27	1
Chromium	<0.0050		0.0050		mg/L		11/23/21 10:23	11/23/21 22:27	1
Cobalt	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:27	1
Lead	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:27	1
Molybdenum	0.025		0.0050		mg/L		11/23/21 10:23	11/23/21 22:27	1
Selenium	0.0093		0.0025		mg/L		11/23/21 10:23	11/24/21 14:34	1
Thallium	<0.0020		0.0020		mg/L		11/23/21 10:23	11/23/21 22:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/16/21 10:15	11/17/21 07:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	600		10		mg/L			11/05/21 07:06	1
Chloride	40		6.0		mg/L			11/10/21 18:06	3
Fluoride	0.18		0.10		mg/L			11/16/21 19:32	1
Sulfate	250		50		mg/L			11/10/21 19:23	10

Client Sample Results

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

Job ID: 500-207904-1

Client Sample ID: MW-04
Date Collected: 11/03/21 15:24
Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-4
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010	^+	0.010		mg/L		11/23/21 10:23	11/24/21 13:04	1

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		11/23/21 10:23	11/23/21 22:30	1
Arsenic	0.0094		0.0010		mg/L		11/23/21 10:23	11/23/21 22:30	1
Barium	0.037		0.0025		mg/L		11/23/21 10:23	11/23/21 22:30	1
Beryllium	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:30	1
Boron	2.7		0.25		mg/L		11/23/21 10:23	11/24/21 11:57	5
Cadmium	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:30	1
Calcium	67		0.20		mg/L		11/23/21 10:23	11/23/21 22:30	1
Chromium	<0.0050		0.0050		mg/L		11/23/21 10:23	11/23/21 22:30	1
Cobalt	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 22:30	1
Lead	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 22:30	1
Molybdenum	0.040		0.0050		mg/L		11/23/21 10:23	11/23/21 22:30	1
Selenium	<0.0025		0.0025		mg/L		11/23/21 10:23	11/24/21 14:38	1
Thallium	<0.0020		0.0020		mg/L		11/23/21 10:23	11/23/21 22:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/16/21 10:15	11/17/21 08:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	550		10		mg/L			11/05/21 07:09	1
Chloride	50		6.0		mg/L			11/10/21 18:19	3
Fluoride	0.99		0.10		mg/L			11/16/21 19:34	1
Sulfate	150		50		mg/L			11/10/21 19:23	10

Client Sample ID: MW-09
Date Collected: 11/04/21 13:24
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-5
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.060		0.010		mg/L		11/17/21 10:04	11/18/21 15:33	1

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		11/17/21 10:04	11/18/21 00:43	1
Arsenic	0.0026		0.0010		mg/L		11/17/21 10:04	11/18/21 00:43	1
Barium	0.074		0.0025		mg/L		11/17/21 10:04	11/18/21 00:43	1
Beryllium	<0.0010	^1+	0.0010		mg/L		11/17/21 10:04	11/18/21 00:43	1
Boron	10		0.50		mg/L		11/17/21 10:04	11/18/21 11:14	10
Cadmium	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:43	1
Calcium	150		0.20		mg/L		11/17/21 10:04	11/18/21 00:43	1
Chromium	<0.0050		0.0050		mg/L		11/17/21 10:04	11/18/21 00:43	1
Cobalt	0.0011		0.0010		mg/L		11/17/21 10:04	11/18/21 00:43	1
Lead	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:43	1
Molybdenum	0.12		0.0050		mg/L		11/17/21 10:04	11/18/21 00:43	1
Selenium	0.097		0.025		mg/L		11/17/21 10:04	11/18/21 11:14	10

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Client Sample Results

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

Job ID: 500-207904-1

Client Sample ID: MW-09

Lab Sample ID: 500-207904-5

Date Collected: 11/04/21 13:24

Matrix: Water

Date Received: 11/05/21 09:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020		mg/L		11/17/21 10:04	11/18/21 00:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/09/21 09:45	11/10/21 10:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	980		10		mg/L			11/08/21 04:15	1
Chloride	160		10		mg/L			11/10/21 18:07	5
Fluoride	0.24		0.10		mg/L			11/16/21 19:38	1
Sulfate	180		50		mg/L			11/10/21 19:23	10

Client Sample ID: MW-11

Lab Sample ID: 500-207904-6

Date Collected: 11/04/21 11:09

Matrix: Water

Date Received: 11/05/21 09:55

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.037		0.010		mg/L		11/17/21 10:04	11/18/21 15:46	1

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		11/17/21 10:04	11/18/21 00:46	1
Arsenic	0.90		0.0010		mg/L		11/17/21 10:04	11/18/21 00:46	1
Barium	0.052		0.0025		mg/L		11/17/21 10:04	11/18/21 00:46	1
Beryllium	<0.0010	^1+	0.0010		mg/L		11/17/21 10:04	11/18/21 00:46	1
Boron	1.6		0.25		mg/L		11/17/21 10:04	11/18/21 11:18	5
Cadmium	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:46	1
Calcium	130		0.20		mg/L		11/17/21 10:04	11/18/21 00:46	1
Chromium	<0.0050		0.0050		mg/L		11/17/21 10:04	11/18/21 00:46	1
Cobalt	<0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 00:46	1
Lead	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:46	1
Molybdenum	0.0058		0.0050		mg/L		11/17/21 10:04	11/18/21 00:46	1
Selenium	<0.0025	^6+ ^+	0.0025		mg/L		11/17/21 10:04	11/18/21 00:46	1
Thallium	<0.0020		0.0020		mg/L		11/17/21 10:04	11/18/21 00:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/09/21 09:45	11/10/21 10:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			11/08/21 04:18	1
Chloride	100		10		mg/L			11/10/21 18:19	5
Fluoride	0.16		0.10		mg/L			11/16/21 19:41	1
Sulfate	45		5.0		mg/L			11/10/21 19:23	1

Client Sample Results

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

Job ID: 500-207904-1

Client Sample ID: MW-14
Date Collected: 11/04/21 12:20
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.014		0.010		mg/L		11/17/21 10:04	11/18/21 15:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0046		0.0030		mg/L		11/17/21 10:04	11/18/21 00:49	1
Arsenic	0.37		0.0010		mg/L		11/17/21 10:04	11/18/21 00:49	1
Barium	0.036		0.0025		mg/L		11/17/21 10:04	11/18/21 00:49	1
Beryllium	<0.0010	^1+	0.0010		mg/L		11/17/21 10:04	11/18/21 00:49	1
Boron	0.66		0.050		mg/L		11/17/21 10:04	11/18/21 11:21	1
Cadmium	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:49	1
Calcium	120		0.20		mg/L		11/17/21 10:04	11/18/21 00:49	1
Chromium	0.12		0.0050		mg/L		11/17/21 10:04	11/18/21 00:49	1
Cobalt	<0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 00:49	1
Lead	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:49	1
Molybdenum	0.0078		0.0050		mg/L		11/17/21 10:04	11/18/21 00:49	1
Selenium	0.016		0.0025		mg/L		11/17/21 10:04	11/18/21 11:21	1
Thallium	<0.0020		0.0020		mg/L		11/17/21 10:04	11/18/21 00:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/09/21 09:45	11/10/21 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	580		10		mg/L			11/08/21 04:20	1
Chloride	37		2.0		mg/L			11/10/21 18:20	1
Fluoride	0.21		0.10		mg/L			11/16/21 19:44	1
Sulfate	72		15		mg/L			11/10/21 19:41	3

Client Sample ID: MW-16
Date Collected: 11/04/21 14:28
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.010		0.010		mg/L		11/17/21 10:04	11/18/21 15:52	1

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		11/17/21 10:04	11/18/21 01:00	1
Arsenic	0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 01:00	1
Barium	0.023		0.0025		mg/L		11/17/21 10:04	11/18/21 01:00	1
Beryllium	<0.0010	^1+	0.0010		mg/L		11/17/21 10:04	11/18/21 01:00	1
Boron	3.0		0.50		mg/L		11/17/21 10:04	11/18/21 11:24	10
Cadmium	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 01:00	1
Calcium	120		0.20		mg/L		11/17/21 10:04	11/18/21 01:00	1
Chromium	<0.0050		0.0050		mg/L		11/17/21 10:04	11/18/21 01:00	1
Cobalt	<0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 01:00	1
Lead	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 01:00	1
Molybdenum	0.020		0.0050		mg/L		11/17/21 10:04	11/18/21 01:00	1
Selenium	<0.0025	^6+ ^+	0.0025		mg/L		11/17/21 10:04	11/18/21 01:00	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-207904-1

Client Sample ID: MW-16
Date Collected: 11/04/21 14:28
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.0020		0.0020		mg/L		11/17/21 10:04	11/18/21 01:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/09/21 09:45	11/10/21 10:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	810		10		mg/L			11/08/21 04:23	1
Chloride	48		10		mg/L			11/10/21 18:21	5
Fluoride	0.68		0.10		mg/L			11/16/21 19:56	1
Sulfate	290		50		mg/L			11/10/21 19:25	10

Client Sample ID: Duplicate
Date Collected: 11/04/21 00:00
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-9
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.011		0.010		mg/L		11/17/21 10:04	11/18/21 15:55	1

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		11/17/21 10:04	11/18/21 01:04	1
Arsenic	0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 01:04	1
Barium	0.024		0.0025		mg/L		11/17/21 10:04	11/18/21 01:04	1
Beryllium	<0.0010	^1+	0.0010		mg/L		11/17/21 10:04	11/18/21 01:04	1
Boron	3.2		0.25		mg/L		11/17/21 10:04	11/18/21 11:28	5
Cadmium	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 01:04	1
Calcium	120		0.20		mg/L		11/17/21 10:04	11/18/21 01:04	1
Chromium	<0.0050		0.0050		mg/L		11/17/21 10:04	11/18/21 01:04	1
Cobalt	<0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 01:04	1
Lead	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 01:04	1
Molybdenum	0.021		0.0050		mg/L		11/17/21 10:04	11/18/21 01:04	1
Selenium	<0.0025	^6+ ^+	0.0025		mg/L		11/17/21 10:04	11/18/21 01:04	1
Thallium	<0.0020		0.0020		mg/L		11/17/21 10:04	11/18/21 01:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/09/21 09:45	11/10/21 10:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	780		10		mg/L			11/08/21 04:25	1
Chloride	47		6.0		mg/L			11/10/21 18:21	3
Fluoride	0.67		0.10		mg/L			11/16/21 19:59	1
Sulfate	290		50		mg/L			11/10/21 19:25	10

Definitions/Glossary

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

Job ID: 500-207904-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
^6+	Interference Check Standard (ICSA and/or ICSAB) 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.
e1	Result exceeds calibration range

Glossary

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

QC Association Summary

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

Job ID: 500-207904-1

Metals

Prep Batch: 627936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total/NA	Water	7470A	
500-207904-6	MW-11	Total/NA	Water	7470A	
500-207904-7	MW-14	Total/NA	Water	7470A	
500-207904-8	MW-16	Total/NA	Water	7470A	
500-207904-9	Duplicate	Total/NA	Water	7470A	
MB 500-627936/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-627936/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 628162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total/NA	Water	7470A	627936
500-207904-6	MW-11	Total/NA	Water	7470A	627936
500-207904-7	MW-14	Total/NA	Water	7470A	627936
500-207904-8	MW-16	Total/NA	Water	7470A	627936
500-207904-9	Duplicate	Total/NA	Water	7470A	627936
MB 500-627936/12-A	Method Blank	Total/NA	Water	7470A	627936
LCS 500-627936/13-A	Lab Control Sample	Total/NA	Water	7470A	627936

Prep Batch: 629113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	7470A	
500-207904-2	MW-02	Total/NA	Water	7470A	
500-207904-3	MW-03	Total/NA	Water	7470A	
500-207904-4	MW-04	Total/NA	Water	7470A	
MB 500-629113/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-629113/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-207904-3 MS	MW-03	Total/NA	Water	7470A	
500-207904-3 MSD	MW-03	Total/NA	Water	7470A	
500-207904-3 DU	MW-03	Total/NA	Water	7470A	

Prep Batch: 629350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total Recoverable	Water	3005A	
500-207904-6	MW-11	Total Recoverable	Water	3005A	
500-207904-7	MW-14	Total Recoverable	Water	3005A	
500-207904-8	MW-16	Total Recoverable	Water	3005A	
500-207904-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-629350/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-629350/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 629363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	7470A	629113
500-207904-2	MW-02	Total/NA	Water	7470A	629113
500-207904-3	MW-03	Total/NA	Water	7470A	629113
500-207904-4	MW-04	Total/NA	Water	7470A	629113
MB 500-629113/12-A	Method Blank	Total/NA	Water	7470A	629113
LCS 500-629113/13-A	Lab Control Sample	Total/NA	Water	7470A	629113
500-207904-3 MS	MW-03	Total/NA	Water	7470A	629113
500-207904-3 MSD	MW-03	Total/NA	Water	7470A	629113
500-207904-3 DU	MW-03	Total/NA	Water	7470A	629113

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QC Association Summary

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

Job ID: 500-207904-1

Metals

Analysis Batch: 629571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total Recoverable	Water	6020A	629350
500-207904-6	MW-11	Total Recoverable	Water	6020A	629350
500-207904-7	MW-14	Total Recoverable	Water	6020A	629350
500-207904-8	MW-16	Total Recoverable	Water	6020A	629350
500-207904-9	Duplicate	Total Recoverable	Water	6020A	629350
MB 500-629350/1-A	Method Blank	Total Recoverable	Water	6020A	629350
LCS 500-629350/2-A	Lab Control Sample	Total Recoverable	Water	6020A	629350

Analysis Batch: 629681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total Recoverable	Water	6020A	629350
500-207904-6	MW-11	Total Recoverable	Water	6020A	629350
500-207904-7	MW-14	Total Recoverable	Water	6020A	629350
500-207904-8	MW-16	Total Recoverable	Water	6020A	629350
500-207904-9	Duplicate	Total Recoverable	Water	6020A	629350
MB 500-629350/1-A	Method Blank	Total Recoverable	Water	6020A	629350
LCS 500-629350/2-A	Lab Control Sample	Total Recoverable	Water	6020A	629350

Analysis Batch: 629759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total Recoverable	Water	6010C	629350
500-207904-6	MW-11	Total Recoverable	Water	6010C	629350
500-207904-7	MW-14	Total Recoverable	Water	6010C	629350
500-207904-8	MW-16	Total Recoverable	Water	6010C	629350
500-207904-9	Duplicate	Total Recoverable	Water	6010C	629350
MB 500-629350/1-A	Method Blank	Total Recoverable	Water	6010C	629350
LCS 500-629350/2-A	Lab Control Sample	Total Recoverable	Water	6010C	629350

Prep Batch: 630567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total Recoverable	Water	3005A	
500-207904-2	MW-02	Total Recoverable	Water	3005A	
500-207904-3	MW-03	Total Recoverable	Water	3005A	
500-207904-4	MW-04	Total Recoverable	Water	3005A	
MB 500-630567/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-630567/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 630784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total Recoverable	Water	6020A	630567
500-207904-2	MW-02	Total Recoverable	Water	6020A	630567
500-207904-3	MW-03	Total Recoverable	Water	6020A	630567
500-207904-4	MW-04	Total Recoverable	Water	6020A	630567
MB 500-630567/1-A	Method Blank	Total Recoverable	Water	6020A	630567
LCS 500-630567/2-A	Lab Control Sample	Total Recoverable	Water	6020A	630567

Analysis Batch: 630849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total Recoverable	Water	6010C	630567
500-207904-2	MW-02	Total Recoverable	Water	6010C	630567
500-207904-3	MW-03	Total Recoverable	Water	6010C	630567

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QC Association Summary

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

Job ID: 500-207904-1

Metals (Continued)

Analysis Batch: 630849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-4	MW-04	Total Recoverable	Water	6010C	630567
MB 500-630567/1-A	Method Blank	Total Recoverable	Water	6010C	630567
LCS 500-630567/2-A	Lab Control Sample	Total Recoverable	Water	6010C	630567

Analysis Batch: 630869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total Recoverable	Water	6020A	630567
500-207904-1	MW-01	Total Recoverable	Water	6020A	630567
500-207904-2	MW-02	Total Recoverable	Water	6020A	630567
500-207904-2	MW-02	Total Recoverable	Water	6020A	630567
500-207904-3	MW-03	Total Recoverable	Water	6020A	630567
500-207904-3	MW-03	Total Recoverable	Water	6020A	630567
500-207904-4	MW-04	Total Recoverable	Water	6020A	630567
500-207904-4	MW-04	Total Recoverable	Water	6020A	630567
MB 500-630567/1-A	Method Blank	Total Recoverable	Water	6020A	630567
LCS 500-630567/2-A	Lab Control Sample	Total Recoverable	Water	6020A	630567

General Chemistry

Analysis Batch: 627341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	SM 2540C	
500-207904-2	MW-02	Total/NA	Water	SM 2540C	
500-207904-3	MW-03	Total/NA	Water	SM 2540C	
500-207904-4	MW-04	Total/NA	Water	SM 2540C	
MB 500-627341/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-627341/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 627628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-5	MW-09	Total/NA	Water	SM 2540C	
500-207904-6	MW-11	Total/NA	Water	SM 2540C	
500-207904-7	MW-14	Total/NA	Water	SM 2540C	
500-207904-8	MW-16	Total/NA	Water	SM 2540C	
500-207904-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-627628/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-627628/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	SM 4500 CI- E	
500-207904-2	MW-02	Total/NA	Water	SM 4500 CI- E	
500-207904-3	MW-03	Total/NA	Water	SM 4500 CI- E	
500-207904-4	MW-04	Total/NA	Water	SM 4500 CI- E	
500-207904-5	MW-09	Total/NA	Water	SM 4500 CI- E	
500-207904-6	MW-11	Total/NA	Water	SM 4500 CI- E	
500-207904-7	MW-14	Total/NA	Water	SM 4500 CI- E	
500-207904-8	MW-16	Total/NA	Water	SM 4500 CI- E	
500-207904-9	Duplicate	Total/NA	Water	SM 4500 CI- E	
MB 500-628229/100	Method Blank	Total/NA	Water	SM 4500 CI- E	
MB 500-628229/136	Method Blank	Total/NA	Water	SM 4500 CI- E	

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QC Association Summary

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

Job ID: 500-207904-1

General Chemistry (Continued)

Analysis Batch: 628229 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-628229/101	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-628229/137	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-207904-6 MS	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-207904-6 MSD	MW-11	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 628230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-207904-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-207904-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-207904-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-207904-5	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-207904-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-207904-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-207904-8	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-207904-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-628230/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MB 500-628230/36	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-628230/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 500-628230/37	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-207904-6 MS	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-207904-6 MSD	MW-11	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 629537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	SM 4500 F C	
500-207904-2	MW-02	Total/NA	Water	SM 4500 F C	
500-207904-3	MW-03	Total/NA	Water	SM 4500 F C	
500-207904-4	MW-04	Total/NA	Water	SM 4500 F C	
500-207904-5	MW-09	Total/NA	Water	SM 4500 F C	
500-207904-6	MW-11	Total/NA	Water	SM 4500 F C	
500-207904-7	MW-14	Total/NA	Water	SM 4500 F C	
500-207904-8	MW-16	Total/NA	Water	SM 4500 F C	
500-207904-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-629537/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-629537/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

Job ID: 500-207904-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-629350/1-A
Matrix: Water
Analysis Batch: 629759

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/17/21 10:04	11/18/21 15:27	1

Lab Sample ID: LCS 500-629350/2-A
Matrix: Water
Analysis Batch: 629759

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.499		mg/L		100	80 - 120

Lab Sample ID: MB 500-630567/1-A
Matrix: Water
Analysis Batch: 630849

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 630567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010	^+	0.010		mg/L		11/23/21 10:23	11/24/21 12:48	1

Lab Sample ID: LCS 500-630567/2-A
Matrix: Water
Analysis Batch: 630849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 630567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.572	^+	mg/L		114	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-629350/1-A
Matrix: Water
Analysis Batch: 629571

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/21 10:04	11/18/21 00:18	1
Arsenic	<0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 00:18	1
Barium	<0.0025		0.0025		mg/L		11/17/21 10:04	11/18/21 00:18	1
Beryllium	<0.0010	^1+	0.0010		mg/L		11/17/21 10:04	11/18/21 00:18	1
Cadmium	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:18	1
Calcium	<0.20		0.20		mg/L		11/17/21 10:04	11/18/21 00:18	1
Chromium	<0.0050		0.0050		mg/L		11/17/21 10:04	11/18/21 00:18	1
Cobalt	<0.0010		0.0010		mg/L		11/17/21 10:04	11/18/21 00:18	1
Lead	<0.00050		0.00050		mg/L		11/17/21 10:04	11/18/21 00:18	1
Molybdenum	<0.0050		0.0050		mg/L		11/17/21 10:04	11/18/21 00:18	1
Thallium	<0.0020		0.0020		mg/L		11/17/21 10:04	11/18/21 00:18	1

Lab Sample ID: MB 500-629350/1-A
Matrix: Water
Analysis Batch: 629681

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		11/17/21 10:04	11/18/21 11:07	1

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-207904-1

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

Lab Sample ID: LCS 500-629350/2-A
Matrix: Water
Analysis Batch: 629571

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	0.500	0.537		mg/L		107	80 - 120	
Arsenic	0.100	0.100		mg/L		100	80 - 120	
Barium	2.00	2.03		mg/L		102	80 - 120	
Beryllium	0.0500	0.0490	^1+	mg/L		98	80 - 120	
Cadmium	0.0500	0.0493		mg/L		99	80 - 120	
Calcium	10.0	9.45		mg/L		95	80 - 120	
Chromium	0.200	0.191		mg/L		96	80 - 120	
Cobalt	0.500	0.484		mg/L		97	80 - 120	
Lead	0.100	0.104		mg/L		104	80 - 120	
Molybdenum	1.00	0.955		mg/L		96	80 - 120	
Thallium	0.100	0.105		mg/L		105	80 - 120	

Lab Sample ID: LCS 500-629350/2-A
Matrix: Water
Analysis Batch: 629681

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Boron	1.00	0.978		mg/L		98	80 - 120	

Lab Sample ID: MB 500-630567/1-A
Matrix: Water
Analysis Batch: 630784

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 630567

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Antimony	<0.0030		0.0030		mg/L		11/23/21 10:23	11/23/21 20:44			1
Arsenic	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 20:44			1
Barium	<0.0025		0.0025		mg/L		11/23/21 10:23	11/23/21 20:44			1
Beryllium	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 20:44			1
Cadmium	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 20:44			1
Calcium	<0.20		0.20		mg/L		11/23/21 10:23	11/23/21 20:44			1
Chromium	<0.0050		0.0050		mg/L		11/23/21 10:23	11/23/21 20:44			1
Cobalt	<0.0010		0.0010		mg/L		11/23/21 10:23	11/23/21 20:44			1
Lead	<0.00050		0.00050		mg/L		11/23/21 10:23	11/23/21 20:44			1
Molybdenum	<0.0050		0.0050		mg/L		11/23/21 10:23	11/23/21 20:44			1
Selenium	<0.0025		0.0025		mg/L		11/23/21 10:23	11/23/21 20:44			1
Thallium	<0.0020		0.0020		mg/L		11/23/21 10:23	11/23/21 20:44			1

Lab Sample ID: MB 500-630567/1-A
Matrix: Water
Analysis Batch: 630869

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 630567

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Boron	<0.050		0.050		mg/L		11/23/21 10:23	11/24/21 11:25			1
Selenium	<0.0025		0.0025		mg/L		11/23/21 10:23	11/24/21 11:25			1

QC Sample Results

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

Job ID: 500-207904-1

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

Lab Sample ID: LCS 500-630567/2-A
Matrix: Water
Analysis Batch: 630784

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 630567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	0.500	0.519		mg/L		104	80 - 120	
Arsenic	0.100	0.0999		mg/L		100	80 - 120	
Barium	2.00	2.03		mg/L		101	80 - 120	
Beryllium	0.0500	0.0473		mg/L		95	80 - 120	
Cadmium	0.0500	0.0485		mg/L		97	80 - 120	
Calcium	10.0	10.0		mg/L		100	80 - 120	
Chromium	0.200	0.198		mg/L		99	80 - 120	
Cobalt	0.500	0.494		mg/L		99	80 - 120	
Lead	0.100	0.104		mg/L		104	80 - 120	
Molybdenum	1.00	0.962		mg/L		96	80 - 120	
Selenium	0.100	0.0999		mg/L		100	80 - 120	
Thallium	0.100	0.104		mg/L		104	80 - 120	

Lab Sample ID: LCS 500-630567/2-A
Matrix: Water
Analysis Batch: 630869

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 630567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Boron	1.00	0.970		mg/L		97	80 - 120	
Selenium	0.100	0.0985		mg/L		99	80 - 120	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-627936/12-A
Matrix: Water
Analysis Batch: 628162

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627936

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020		mg/L		11/09/21 09:45	11/10/21 09:43	1

Lab Sample ID: LCS 500-627936/13-A
Matrix: Water
Analysis Batch: 628162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Mercury	0.00200	0.00188		mg/L		94	80 - 120	

Lab Sample ID: MB 500-629113/12-A
Matrix: Water
Analysis Batch: 629363

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629113

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020		0.00020		mg/L		11/16/21 10:15	11/17/21 07:39	1

Lab Sample ID: LCS 500-629113/13-A
Matrix: Water
Analysis Batch: 629363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Mercury	0.00200	0.00201		mg/L		100	80 - 120	

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-207904-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: 500-207904-3 MS
Matrix: Water
Analysis Batch: 629363

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 629113
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	<0.00020		0.00100	0.000974		mg/L		97	75 - 125

Lab Sample ID: 500-207904-3 MSD
Matrix: Water
Analysis Batch: 629363

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 629113
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.000981		mg/L		98	75 - 125	1	20

Lab Sample ID: 500-207904-3 DU
Matrix: Water
Analysis Batch: 629363

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 629113
%Rec.

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

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

Lab Sample ID: MB 500-627341/1
Matrix: Water
Analysis Batch: 627341

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			11/05/21 06:40	1

Lab Sample ID: LCS 500-627341/2
Matrix: Water
Analysis Batch: 627341

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	250	240		mg/L		96	80 - 120

Lab Sample ID: MB 500-627628/1
Matrix: Water
Analysis Batch: 627628

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			11/08/21 03:29	1

Lab Sample ID: LCS 500-627628/2
Matrix: Water
Analysis Batch: 627628

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	250	240		mg/L		96	80 - 120

QC Sample Results

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

Job ID: 500-207904-1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-628229/100
Matrix: Water
Analysis Batch: 628229

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			11/10/21 18:00	1

Lab Sample ID: MB 500-628229/136
Matrix: Water
Analysis Batch: 628229

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			11/10/21 18:19	1

Lab Sample ID: LCS 500-628229/101
Matrix: Water
Analysis Batch: 628229

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	20.9		mg/L		105	85 - 115

Lab Sample ID: LCS 500-628229/137
Matrix: Water
Analysis Batch: 628229

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	20.7		mg/L		104	85 - 115

Lab Sample ID: 500-207904-6 MS
Matrix: Water
Analysis Batch: 628229

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100		20.0	116	4	mg/L		81	75 - 125

Lab Sample ID: 500-207904-6 MSD
Matrix: Water
Analysis Batch: 628229

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		20.0	115	4	mg/L		76	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-629537/3
Matrix: Water
Analysis Batch: 629537

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			11/16/21 18:38	1

QC Sample Results

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

Job ID: 500-207904-1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-629537/4
Matrix: Water
Analysis Batch: 629537

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 500-628230/15
Matrix: Water
Analysis Batch: 628230

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			11/10/21 19:14	1

Lab Sample ID: MB 500-628230/36
Matrix: Water
Analysis Batch: 628230

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			11/10/21 19:22	1

Lab Sample ID: LCS 500-628230/16
Matrix: Water
Analysis Batch: 628230

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	21.6		mg/L		108	88 - 123

Lab Sample ID: LCS 500-628230/37
Matrix: Water
Analysis Batch: 628230

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

Lab Sample ID: 500-207904-6 MS
Matrix: Water
Analysis Batch: 628230

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	45		20.0	63.7	e1	mg/L		93	75 - 125

Lab Sample ID: 500-207904-6 MSD
Matrix: Water
Analysis Batch: 628230

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	45		20.0	65.5	e1	mg/L		102	75 - 125	3	20



University Park IL 60484 3101
phone 708 534 5200 fax 708 534 5211

500-207904 COC

Regulatory Program: DW NPDES RCRA Other

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Rich Gnat		Site Contact: Mitchel Dolan		Date: 11/3/21		COC No	
KPRG and Associates Inc		Tel/Fax (262) 781-0475		Lab Contact: Diana Mockler		Carrier FedEx		1 of 1 COCs	
14665 West Lisbon Road Suite 1A		Analysis Turnaround Time							
Brookfield WI 53154		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
(262) 781-0475 Phone		Filtered Sample (Y/N) _____ Perform MS / MSD (Y/N) _____ 903.0 904.0 Radium 226/228 + Combine _____ 6020A, 7470A 14 Metals & Mercury _____ 6010C - Lithium _____ 4500_F_C - Fluoride _____ SM4500_Cl_E - Chloride _____ SM4500_SO4_E - Sulfate _____ 2540C - TDS _____							
(262) 781-0478 FAX									
Project Name Waukegan CCR									
Site Waukegan Station - Waukegan IL									
P O # 4502042830		Sampler _____ For Lab Use Only: Walk-in Client _____ Lab Sampling _____ Job / SDG No 500-207904							

1
2
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4

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	903.0 904.0 Radium 226/228 + Combine	6020A, 7470A 14 Metals & Mercury	6010C - Lithium	4500_F_C - Fluoride	SM4500_Cl_E - Chloride	SM4500_SO4_E - Sulfate	2540C - TDS	Sample Specific Notes
MW-01	11/3	1223	G	W	5	N	N	X	X	X	X	X	X	X	
MW-02	11/3	1322	G	W	5										
MW-03	11/3	1424	G	W	5										
MW-04	11/3	1524	G	W	5										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ 4 4 4 1 1 1 1

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non Hazard Flammable Skin Irritant Poison B Unknown

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 & Comments Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium

Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____	
Relinquished by Mitchel Dolan	Company KPRG	Date/Time 11/3/1700	Received by FedEx	Company _____	Date/Time 11/3/1700		
Relinquished by _____	Company _____	Date/Time _____	Received by _____	Company _____	Date/Time _____		
Relinquished by _____	Company _____	Date/Time _____	Received by Laboratory by _____	Company ETR	Date/Time 11/4/21 1010		



Chain of Custody Record



Client Information		Sampler: <u>Mitchel Dolan</u>		Lab PM Mockler Diana J		Carrier Tracking No(s) 500-207904 COC		Page 42474 1			
Client Contact: Mitchel Dolan		Phone: <u>262-761-0475</u>		E-Mail Diana.Mockler@Eurofinset.com		State of Origin <u>IL</u>		Page 1 of 1			
Company: KPRG and Associates Inc		PWSID:		Analysis Requested		Job# <u>500-207904</u>		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:			
Address 14665 West Lisbon Road Suite 1A		Due Date Requested									
City: Brookfield		TAT Requested (days)									
State Zip WI 53005		Compliance Project. Δ Yes Δ No									
Phone: 262 781-0475(Tel)		PO #: 4502012555									
Email mitcheld@kprginc.com		WO #									
Project Name Waukegan CCR Event Desc Quarterly Waukegan CCR		Project #: 50011597		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers			
Site Illinois		SSOW#		903.0 904.0		6010C 6020A, 7470A		2540C, 4500_F_C, SM4500_CI_E, SM4500_S04_E			
180 1 - Turbidity											
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code	D	D	N	N	Special Instructions/Note
MW-01					Water						
MW-02					Water						
MW-03					Water						
MW-04					Water						
MW-09		11/4/21	1324	G	Water		X	X	X	X	
MW 11		11/4/21	1109	G	Water		X	X	X	X	
MW-14		11/4/21	1220	G	Water		X	X	X	X	
MW-16		11/4/21	1428	G	Water		X	X	X	X	
Duplicate		11/4/21	-	G	Water		X	X	X	X	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by		Date		Time		Method of Shipment					
Relinquished by <u>Mitchel Dolan MDD</u>		Date/Time <u>11/4/21 / 1700</u>		Company <u>KPRG</u>		Received by <u>FEDEX</u>		Date/Time <u>11/4/21 / 1700</u>		Company <u>FEDEX</u>	
Relinquished by		Date/Time		Company		Received by		Date/Time		Company	
Relinquished by		Date/Time		Company		Received by <u>[Signature]</u>		Date/Time <u>11-5-21 0955</u>		Company <u>ETA</u>	
Custody Seals Intact. Δ Yes Δ No		Custody Seal No		Cooler Temperature(s) C and Other Remarks <u>1, 2, 8.8</u>							

1591-889

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Do Not Lift Using This Tag

ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 03NOV21
ACTWGT: 52.25 LB
CAD: 6994083/SSFE2220
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO TEST AMERICA

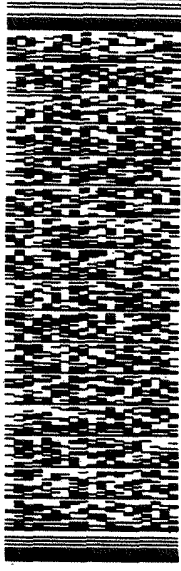
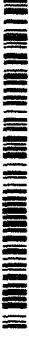
2417 BOND ST

UNIVERSITY PARK IL 60484

(999) 999-9999
REF: 0201

500 207904 Wayb

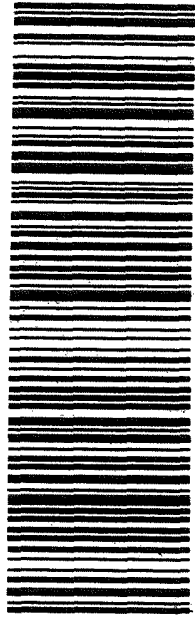
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PRIORITY OVERNIGHT
AHS
60484
IL-US ORD

1 of 3
TRK# 2856 9328 7944
0201
MASTER

79 JOTA



ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 03NOV21
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TO TEST AMERICA

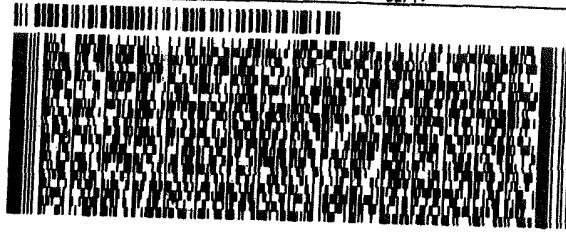
2417 BOND ST

UNIVERSITY PARK IL 60484

(999) 999-9999
REF: 0201

DEPT:

DEPT:



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2 of 3
MPS# 2856 9328 7955
0263
Mstr# 2856 9328 7944
0201

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PRIORITY OVERNIGHT

79 JOTA

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IL-US

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ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 03NOV21
ACTWGT: 52.25 LB
CAD: 6994083/SSFE2220
DIMS: 24x14x14 IN

BILL THIRD PARTY

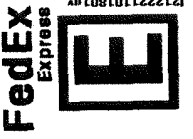
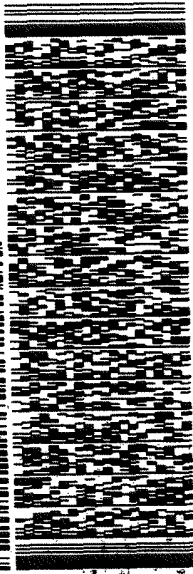
TO TEST AMERICA

2417 BOND ST

UNIVERSITY PARK IL 60484

(999) 999-9999
REF: 0201

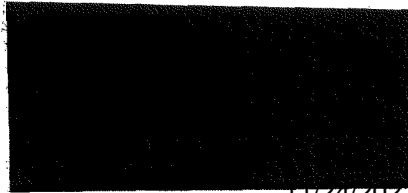
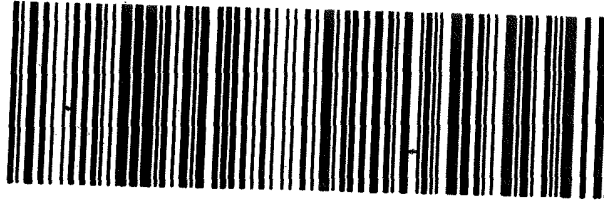
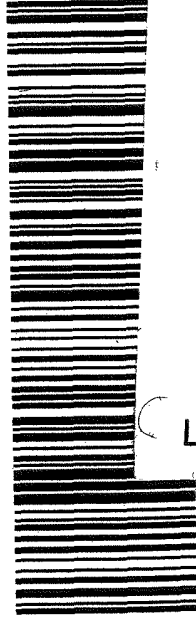
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PRIORITY OVERNIGHT
AHS
60484
IL-US ORD

3 of 3
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0263
Mstr# 2856 9328 7944
0201

79 JOTA



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Do Not Lift Using This Tag



500-207904 Wayb

ORIGIN ID:FEPA (262) 781-0475

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

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ACTWGT: 35.95 LB
CAD: 6994085/SSFE2220
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BILL THIRD PARTY

TO TEST AMERICA

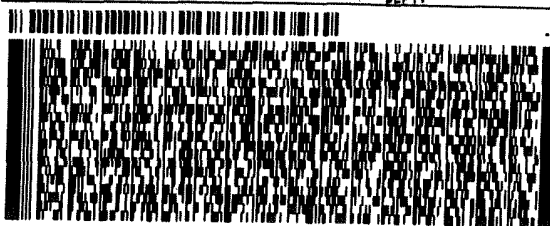
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UNIVERSITY PARK IL 60484

(999) 999-9999
TNU:
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REF:

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3 of 4

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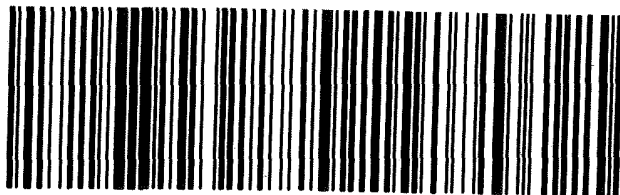
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FRI - 05 NOV 11:30A
PRIORITY OVERNIGHT

AHS
60484
IL-US ORD



Do Not Lift Using This Tag

ORIGIN ID:FEPA (262) 781-0475

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 04NOV21
ACTWGT: 35.95 LB
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BILL THIRD PARTY

TO TEST AMERICA

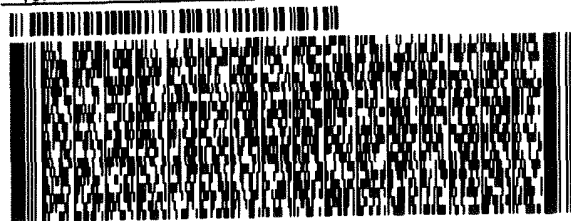
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UNIVERSITY PARK IL 60484

(999) 999-9999
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REF:

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Express



Part #: 156297-4834444/2102

2 of 4

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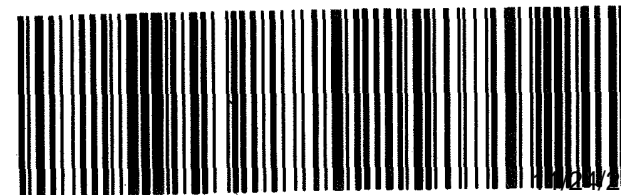
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0201

79 JOTA

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PRIORITY OVERNIGHT

AHS
60484
IL-US ORD



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-207904-1

Login Number: 207904

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1,0.8,-0.9,1.2,0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

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

Job ID: 500-207904-1

Client Sample ID: MW-01
Date Collected: 11/03/21 12:23
Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	630849	11/24/21 12:55	JJB	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630784	11/23/21 22:19	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	630869	11/24/21 11:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630869	11/24/21 14:27	FXG	TAL CHI
Total/NA	Prep	7470A			629113	11/16/21 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	629363	11/17/21 07:51	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627341	11/05/21 07:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		3	628229	11/10/21 18:06	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:26	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:21	RES	TAL CHI

Client Sample ID: MW-02
Date Collected: 11/03/21 13:22
Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	630849	11/24/21 12:58	JJB	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630784	11/23/21 22:23	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	630869	11/24/21 11:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630869	11/24/21 14:31	FXG	TAL CHI
Total/NA	Prep	7470A			629113	11/16/21 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	629363	11/17/21 07:54	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627341	11/05/21 07:04	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	628229	11/10/21 18:06	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:22	RES	TAL CHI

Client Sample ID: MW-03
Date Collected: 11/03/21 14:24
Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	630849	11/24/21 13:01	JJB	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630784	11/23/21 22:27	FXG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-207904-1

Client Sample ID: MW-03

Date Collected: 11/03/21 14:24

Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	630869	11/24/21 11:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630869	11/24/21 14:34	FXG	TAL CHI
Total/NA	Prep	7470A			629113	11/16/21 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	629363	11/17/21 07:56	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627341	11/05/21 07:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		3	628229	11/10/21 18:06	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:23	RES	TAL CHI

Client Sample ID: MW-04

Date Collected: 11/03/21 15:24

Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	630849	11/24/21 13:04	JJB	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630784	11/23/21 22:30	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	630869	11/24/21 11:57	FXG	TAL CHI
Total Recoverable	Prep	3005A			630567	11/23/21 10:23	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	630869	11/24/21 14:38	FXG	TAL CHI
Total/NA	Prep	7470A			629113	11/16/21 10:15	MJG	TAL CHI
Total/NA	Analysis	7470A		1	629363	11/17/21 08:30	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627341	11/05/21 07:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		3	628229	11/10/21 18:19	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:23	RES	TAL CHI

Client Sample ID: MW-09

Date Collected: 11/04/21 13:24

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	629759	11/18/21 15:33	JJB	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	629571	11/18/21 00:43	FXG	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	629681	11/18/21 11:14	FXG	TAL CHI
Total/NA	Prep	7470A			627936	11/09/21 09:45	MJG	TAL CHI
Total/NA	Analysis	7470A		1	628162	11/10/21 10:15	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-207904-1

Client Sample ID: MW-09
Date Collected: 11/04/21 13:24
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	627628	11/08/21 04:15	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	628229	11/10/21 18:07	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:23	RES	TAL CHI

Client Sample ID: MW-11
Date Collected: 11/04/21 11:09
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	629759	11/18/21 15:46	JJB	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	629571	11/18/21 00:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	629681	11/18/21 11:18	FXG	TAL CHI
Total/NA	Prep	7470A			627936	11/09/21 09:45	MJG	TAL CHI
Total/NA	Analysis	7470A		1	628162	11/10/21 10:17	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627628	11/08/21 04:18	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	628229	11/10/21 18:19	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:41	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		1	628230	11/10/21 19:23	RES	TAL CHI

Client Sample ID: MW-14
Date Collected: 11/04/21 12:20
Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	629759	11/18/21 15:49	JJB	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	629571	11/18/21 00:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	629681	11/18/21 11:21	FXG	TAL CHI
Total/NA	Prep	7470A			627936	11/09/21 09:45	MJG	TAL CHI
Total/NA	Analysis	7470A		1	628162	11/10/21 10:20	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627628	11/08/21 04:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	628229	11/10/21 18:20	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:44	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		3	628230	11/10/21 19:41	RES	TAL CHI

Lab Chronicle

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

Job ID: 500-207904-1

Client Sample ID: MW-16

Lab Sample ID: 500-207904-8

Date Collected: 11/04/21 14:28

Matrix: Water

Date Received: 11/05/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	629759	11/18/21 15:52	JJB	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	629571	11/18/21 01:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	629681	11/18/21 11:24	FXG	TAL CHI
Total/NA	Prep	7470A			627936	11/09/21 09:45	MJG	TAL CHI
Total/NA	Analysis	7470A		1	628162	11/10/21 10:22	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627628	11/08/21 04:23	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	628229	11/10/21 18:21	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:25	RES	TAL CHI

Client Sample ID: Duplicate

Lab Sample ID: 500-207904-9

Date Collected: 11/04/21 00:00

Matrix: Water

Date Received: 11/05/21 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	629759	11/18/21 15:55	JJB	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	629571	11/18/21 01:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			629350	11/17/21 10:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	629681	11/18/21 11:28	FXG	TAL CHI
Total/NA	Prep	7470A			627936	11/09/21 09:45	MJG	TAL CHI
Total/NA	Analysis	7470A		1	628162	11/10/21 10:24	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	627628	11/08/21 04:25	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		3	628229	11/10/21 18:21	RES	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	629537	11/16/21 19:59	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	628230	11/10/21 19:25	RES	TAL CHI

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 500-207904-1

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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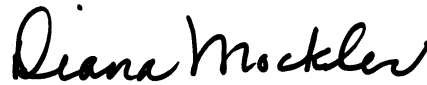
ANALYTICAL REPORT

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

Laboratory Job ID: 500-207904-2
Client Project/Site: Waukegan CCR

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

Attn: Richard Gnat



Authorized for release by:
12/16/2021 8:23:27 AM

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

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

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

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Case Narrative

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

Job ID: 500-207904-2

Job ID: 500-207904-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-207904-2

Comments

No additional comments.

Receipt

The samples were received on 11/4/2021 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were -0.9° C, 0.1° C, 0.8° C, 0.8° C and 1.2° C.

RAD

Methods 903.0, 9315: Radium 226 batch 536245

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

MW-01 (500-207904-1), MW-02 (500-207904-2), MW-03 (500-207904-3), MW-04 (500-207904-4), MW-09 (500-207904-5), MW-11 (500-207904-6), MW-14 (500-207904-7), MW-16 (500-207904-8), Duplicate (500-207904-9), (LCS 160-536245/1-A), (MB 160-536245/25-A), (240-159571-O-5-A), (240-159571-N-5-A MS), (240-159571-K-5-A MSD) and (500-207904-D-1-B DU)

Methods 904.0, 9320: Radium 228 batch 536394

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

MW-01 (500-207904-1), MW-02 (500-207904-2), MW-03 (500-207904-3), MW-04 (500-207904-4), MW-09 (500-207904-5), MW-11 (500-207904-6), MW-14 (500-207904-7), MW-16 (500-207904-8), Duplicate (500-207904-9), (LCS 160-536394/1-A), (MB 160-536394/25-A), (240-159571-O-5-B), (240-159571-N-5-B MS), (240-159571-K-5-B MSD) and (500-207904-D-1-C DU)

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

Method Summary

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

Job ID: 500-207904-2

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

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

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

Sample Summary

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

Job ID: 500-207904-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-207904-1	MW-01	Water	11/03/21 12:23	11/04/21 10:10
500-207904-2	MW-02	Water	11/03/21 13:22	11/04/21 10:10
500-207904-3	MW-03	Water	11/03/21 14:24	11/04/21 10:10
500-207904-4	MW-04	Water	11/03/21 15:24	11/04/21 10:10
500-207904-5	MW-09	Water	11/04/21 13:24	11/05/21 09:55
500-207904-6	MW-11	Water	11/04/21 11:09	11/05/21 09:55
500-207904-7	MW-14	Water	11/04/21 12:20	11/05/21 09:55
500-207904-8	MW-16	Water	11/04/21 14:28	11/05/21 09:55
500-207904-9	Duplicate	Water	11/04/21 00:00	11/05/21 09:55

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

Client Sample Results

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

Job ID: 500-207904-2

Client Sample ID: MW-01
Date Collected: 11/03/21 12:23
Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-1
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.146	U	0.102	0.103	1.00	0.146	pCi/L	11/12/21 09:23	12/06/21 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					11/12/21 09:23	12/06/21 13:28	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.553	U	0.336	0.337	1.00	0.553	pCi/L	11/12/21 10:48	12/01/21 14:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.5		40 - 110					11/12/21 10:48	12/01/21 14:14	1
Y Carrier	89.3		40 - 110					11/12/21 10:48	12/01/21 14:14	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.553	U	0.351	0.352	5.00	0.553	pCi/L		12/15/21 17:45	1

Client Sample ID: MW-02
Date Collected: 11/03/21 13:22
Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-2
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.189	U	0.128	0.129	1.00	0.189	pCi/L	11/12/21 09:23	12/06/21 13:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					11/12/21 09:23	12/06/21 13:28	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.580	U	0.373	0.377	1.00	0.580	pCi/L	11/12/21 10:48	12/01/21 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					11/12/21 10:48	12/01/21 14:15	1
Y Carrier	88.2		40 - 110					11/12/21 10:48	12/01/21 14:15	1

Client Sample Results

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

Job ID: 500-207904-2

Client Sample ID: MW-02

Date Collected: 11/03/21 13:22

Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-2

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.763		0.394	0.398	5.00	0.580	pCi/L		12/15/21 17:45	1

Client Sample ID: MW-03

Date Collected: 11/03/21 14:24

Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.177	U	0.0993	0.0994	1.00	0.177	pCi/L	11/12/21 09:23	12/06/21 13:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		40 - 110					11/12/21 09:23	12/06/21 13:29	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.438	U	0.270	0.272	1.00	0.438	pCi/L	11/12/21 10:48	12/01/21 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		40 - 110					11/12/21 10:48	12/01/21 14:15	1
Y Carrier	87.5		40 - 110					11/12/21 10:48	12/01/21 14:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.438	U	0.288	0.290	5.00	0.438	pCi/L		12/15/21 17:45	1

Client Sample ID: MW-04

Date Collected: 11/03/21 15:24

Date Received: 11/04/21 10:10

Lab Sample ID: 500-207904-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.206		0.126	0.127	1.00	0.174	pCi/L	11/12/21 09:23	12/06/21 13:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/12/21 09:23	12/06/21 13:29	1

Client Sample Results

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

Job ID: 500-207904-2

Client Sample ID: MW-04

Lab Sample ID: 500-207904-4

Date Collected: 11/03/21 15:24

Matrix: Water

Date Received: 11/04/21 10:10

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.454	U	0.288	0.290	1.00	0.454	pCi/L	11/12/21 10:48	12/01/21 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/12/21 10:48	12/01/21 14:15	1
Y Carrier	89.3		40 - 110					11/12/21 10:48	12/01/21 14:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.572		0.314	0.317	5.00	0.454	pCi/L		12/15/21 17:45	1

Client Sample ID: MW-09

Lab Sample ID: 500-207904-5

Date Collected: 11/04/21 13:24

Matrix: Water

Date Received: 11/05/21 09:55

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332		0.180	0.182	1.00	0.241	pCi/L	11/12/21 09:23	12/06/21 13:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.6		40 - 110					11/12/21 09:23	12/06/21 13:29	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.775	U	0.425	0.425	1.00	0.775	pCi/L	11/12/21 10:48	12/01/21 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.6		40 - 110					11/12/21 10:48	12/01/21 14:15	1
Y Carrier	90.8		40 - 110					11/12/21 10:48	12/01/21 14:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.775	U	0.462	0.462	5.00	0.775	pCi/L		12/15/21 17:45	1

Client Sample Results

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

Job ID: 500-207904-2

Client Sample ID: MW-11

Lab Sample ID: 500-207904-6

Date Collected: 11/04/21 11:09

Matrix: Water

Date Received: 11/05/21 09:55

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.467		0.187	0.191	1.00	0.215	pCi/L	11/12/21 09:23	12/06/21 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		40 - 110					11/12/21 09:23	12/06/21 13:32	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.884		0.487	0.494	1.00	0.740	pCi/L	11/12/21 10:48	12/01/21 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		40 - 110					11/12/21 10:48	12/01/21 14:17	1
Y Carrier	90.8		40 - 110					11/12/21 10:48	12/01/21 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.35		0.522	0.530	5.00	0.740	pCi/L		12/15/21 17:45	1

Client Sample ID: MW-14

Lab Sample ID: 500-207904-7

Date Collected: 11/04/21 12:20

Matrix: Water

Date Received: 11/05/21 09:55

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.276		0.173	0.174	1.00	0.240	pCi/L	11/12/21 09:23	12/06/21 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.5		40 - 110					11/12/21 09:23	12/06/21 13:32	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.798	U	0.472	0.473	1.00	0.798	pCi/L	11/12/21 10:48	12/01/21 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.5		40 - 110					11/12/21 10:48	12/01/21 14:17	1
Y Carrier	89.7		40 - 110					11/12/21 10:48	12/01/21 14:17	1

Eurofins TestAmerica, Chicago

Client Sample Results

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

Job ID: 500-207904-2

Client Sample ID: MW-14

Date Collected: 11/04/21 12:20

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-7

Matrix: Water

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.798	U	0.503	0.504	5.00	0.798	pCi/L		12/15/21 17:45	1

Client Sample ID: MW-16

Date Collected: 11/04/21 14:28

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-8

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.157	U	0.0958	0.0960	1.00	0.157	pCi/L	11/12/21 09:23	12/06/21 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					11/12/21 09:23	12/06/21 13:32	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.457	U	0.279	0.280	1.00	0.457	pCi/L	11/12/21 10:48	12/01/21 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		40 - 110					11/12/21 10:48	12/01/21 14:17	1
Y Carrier	90.1		40 - 110					11/12/21 10:48	12/01/21 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.457	U	0.295	0.296	5.00	0.457	pCi/L		12/15/21 17:45	1

Client Sample ID: Duplicate

Date Collected: 11/04/21 00:00

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.152	U	0.102	0.103	1.00	0.152	pCi/L	11/12/21 09:23	12/06/21 13:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					11/12/21 09:23	12/06/21 13:33	1

Client Sample Results

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

Job ID: 500-207904-2

Client Sample ID: Duplicate

Lab Sample ID: 500-207904-9

Date Collected: 11/04/21 00:00

Matrix: Water

Date Received: 11/05/21 09:55

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.440	U	0.240	0.240	1.00	0.440	pCi/L	11/12/21 10:48	12/01/21 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					11/12/21 10:48	12/01/21 14:17	1
Y Carrier	92.0		40 - 110					11/12/21 10:48	12/01/21 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.440	U	0.261	0.261	5.00	0.440	pCi/L		12/15/21 17:45	1



Definitions/Glossary

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

Job ID: 500-207904-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

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

QC Association Summary

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

Job ID: 500-207904-2

Rad

Prep Batch: 536245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	PrecSep-21	
500-207904-2	MW-02	Total/NA	Water	PrecSep-21	
500-207904-3	MW-03	Total/NA	Water	PrecSep-21	
500-207904-4	MW-04	Total/NA	Water	PrecSep-21	
500-207904-5	MW-09	Total/NA	Water	PrecSep-21	
500-207904-6	MW-11	Total/NA	Water	PrecSep-21	
500-207904-7	MW-14	Total/NA	Water	PrecSep-21	
500-207904-8	MW-16	Total/NA	Water	PrecSep-21	
500-207904-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-536245/25-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-536245/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-207904-1 DU	MW-01	Total/NA	Water	PrecSep-21	

Prep Batch: 536394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-207904-1	MW-01	Total/NA	Water	PrecSep_0	
500-207904-2	MW-02	Total/NA	Water	PrecSep_0	
500-207904-3	MW-03	Total/NA	Water	PrecSep_0	
500-207904-4	MW-04	Total/NA	Water	PrecSep_0	
500-207904-5	MW-09	Total/NA	Water	PrecSep_0	
500-207904-6	MW-11	Total/NA	Water	PrecSep_0	
500-207904-7	MW-14	Total/NA	Water	PrecSep_0	
500-207904-8	MW-16	Total/NA	Water	PrecSep_0	
500-207904-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-536394/25-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-536394/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-207904-1 DU	MW-01	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 500-207904-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-536245/25-A
Matrix: Water
Analysis Batch: 540390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 536245

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2158		0.132	0.133	1.00	0.173	pCi/L	11/12/21 09:23	12/06/21 13:34	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
Ba Carrier	%Yield	Qualifier	40 - 110				11/12/21 09:23		12/06/21 13:34	
	91.4									

Lab Sample ID: LCS 160-536245/1-A
Matrix: Water
Analysis Batch: 540407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 536245

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits	
				Uncert. (2σ+/-)						
Radium-226	15.1	14.10		1.53	1.00	0.194	pCi/L	93	75 - 125	
Carrier	LCS	LCS	Limits							
Ba Carrier	%Yield	Qualifier	40 - 110							
	87.6									

Lab Sample ID: 500-207904-1 DU
Matrix: Water
Analysis Batch: 540407

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 536245

Analyte	Sample	Sample	DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	<0.146	U	<0.200	U	0.130	1.00	0.200	pCi/L	0.01	1
Carrier	DU	DU	Limits							
Ba Carrier	%Yield	Qualifier	40 - 110							
	63.5									

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-536394/25-A
Matrix: Water
Analysis Batch: 539996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 536394

Analyte	MB	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	<0.706	U	0.415	0.416	1.00	0.706	pCi/L	11/12/21 10:48	12/01/21 14:18	1
Carrier	MB	MB	Limits				Prepared		Analyzed	
Ba Carrier	%Yield	Qualifier	40 - 110				11/12/21 10:48		12/01/21 14:18	
	91.4									
Y Carrier	83.7		40 - 110				11/12/21 10:48		12/01/21 14:18	

QC Sample Results

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

Job ID: 500-207904-2

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

Lab Sample ID: LCS 160-536394/1-A
Matrix: Water
Analysis Batch: 539784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 536394

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-228	12.1	11.61		1.48	1.00	0.678	pCi/L	96	75 - 125	
LCS LCS										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	87.6		40 - 110							
Y Carrier	82.2		40 - 110							

Lab Sample ID: 500-207904-1 DU
Matrix: Water
Analysis Batch: 539784

Client Sample ID: MW-01
Prep Type: Total/NA
Prep Batch: 536394

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										1
Radium-228	<0.553	U	<0.643	U	0.412	1.00	0.643	pCi/L	0.33	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	63.5		40 - 110							
Y Carrier	87.9		40 - 110							



University Park IL 60484 3101
phone 708 534 5200 fax 708 534 5211

500-207904 COC

Regulatory Program: DW NPDES RCRA Other

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Rich Gnat		Site Contact: Mitchel Dolan		Date: 11/3/21		COC No							
KPRG and Associates Inc		Tel/Fax (262) 781-0475		Lab Contact: Diana Mockler		Carrier FedEx		1 of 1 COCs							
14665 West Lisbon Road Suite 1A		Analysis Turnaround Time		Sampler		For Lab Use Only:		Walk-in Client							
Brookfield WI 53154		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below		Lab Sampling		Job / SDG No							
(262) 781-0475 Phone		<input type="checkbox"/> 2 weeks		_____				500-207904							
(262) 781-0478 FAX		<input type="checkbox"/> 1 week													
Project Name Waukegan CCR		<input type="checkbox"/> 2 days													
Site Waukegan Station - Waukegan IL		<input type="checkbox"/> 1 day													
P O # 4502042830															
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	903 0 904 0 Radium 226/228 + Combined	6020A, 7470A 14 Metals & Mercury	6010C - Lithium	4500_F_C - Fluoride	SM4500_CL_E - Chloride	SM4500_SO4_E - Sulfate	2540C - TDS	Sample Specific Notes
MW-01	11/3	1223	G	W	5	N	X	X	X	X	X	X	X		
MW-02	11/3	1322	G	W	5										
MW-03	11/3	1424	G	W	5										
MW-04	11/3	1524	G	W	5										
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4 4 4 1 1 1 1								
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months								
Special Instructions/QC Requirements & Comments Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium															
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd		Corr'd		Therm ID No							
Relinquished by Mitchel Dolan		Company KPRG		Date/Time 11/3/1700		Received by FedEx		Company		Date/Time 11/3/1700					
Relinquished by		Company		Date/Time		Received by		Company		Date/Time					
Relinquished by		Company		Date/Time		Received by [Signature]		Company ETR		Date/Time 11/4/21 1010					

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Eurofins TestAmerica, Chicago

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

Chain of Custody Record



ns Environment Testing America

Form containing Client Information, Analysis Requested, Sample Identification table, and Chain of Custody sections. Includes handwritten entries for sampler 'Mitchel Dolan', job number '500-207904', and sample dates/times.

1591-885



Do Not Lift Using This Tag

ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

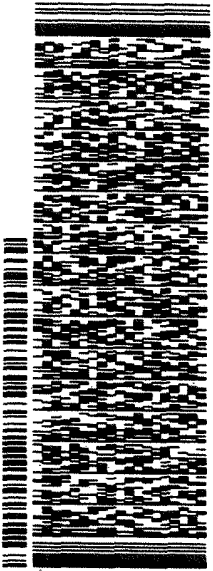
SHIP DATE: 03NOV21
ACTWT: 52.25 LB
CAD: 6994083/SSFE2220
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO TEST AMERICA
2417 BOND ST
UNIVERSITY PARK IL 60484

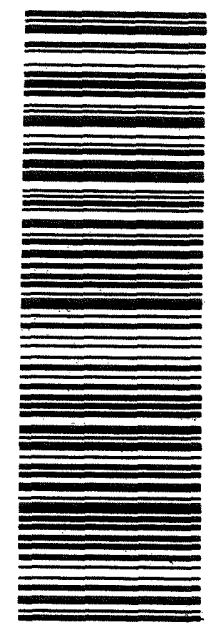
500 207904 Wayb

DEPT:



1 of 3
TRK# 2856 9328 7944
MASTER #
79 JOTA

THU - 04 NOV 11:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 03NOV21
ACTWT: 52.25 LB
CAD: 6994083/SSFE2220
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO TEST AMERICA
2417 BOND ST
UNIVERSITY PARK IL 60484

(999) 999-9999 REF: DEPT:

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2 of 3
MPS# 2856 9328 7955
Mstr# 2856 9328 7944

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PRIORITY OVERNIGHT

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IL-US

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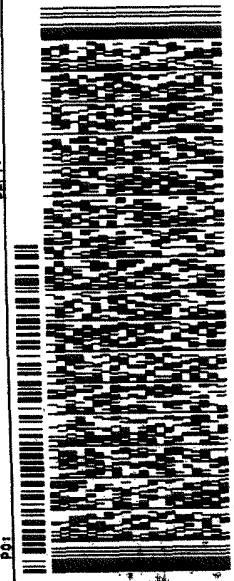
ORIGIN ID: FEPA (262) 622-1143
KPRG AND ASSOCIATES
414 PLAZA DR STE 106
WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 03NOV21
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CAD: 6994083/SSFE2220
DIMS: 24x14x14 IN

BILL THIRD PARTY

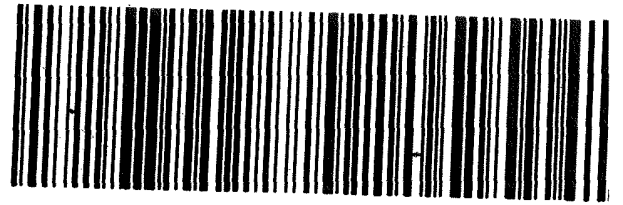
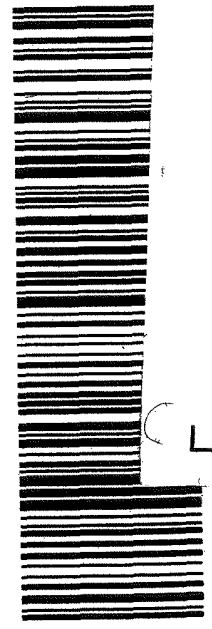
TO TEST AMERICA
2417 BOND ST
UNIVERSITY PARK IL 60484

DEPT:



3 of 3
MPS# 2856 9328 7966
Mstr# 2856 9328 7944

THU - 04 NOV 11:30A
PRIORITY OVERNIGHT
AHS
60484
IL-US ORD



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Do Not Lift Using This Tag



500-207904 Wayb

ORIGIN ID:FEPA (262) 781-0475

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 04NOV21
ACTWGT: 35.95 LB
CAD: 6994085/SSFE2220
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO TEST AMERICA

2417 BOND ST

UNIVERSITY PARK IL 60484

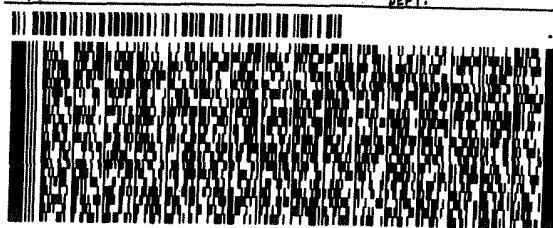
(999) 999-9999 REF:

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FedEx Express



985222110180100 10/22

3 of 4

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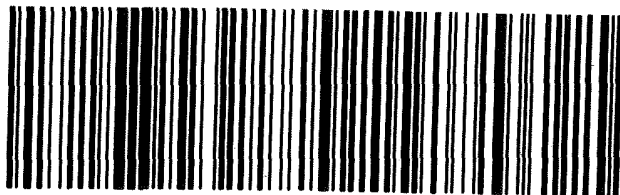
79 JOTA

FRI - 05 NOV 11:30A
PRIORITY OVERNIGHT

AHS

60484

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Do Not Lift Using This Tag

ORIGIN ID:FEPA (262) 781-0475

KPRG AND ASSOCIATES
414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 04NOV21

ACTWGT: 35.95 LB
CAD: 6994085/SSFE2220
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO TEST AMERICA

2417 BOND ST

UNIVERSITY PARK IL 60484

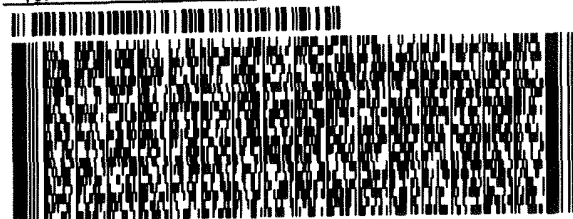
(999) 999-9999 REF:

YNU:

PO:

REF:

DEPT:



FedEx Express



Part #: 156297-4834444/2102-10/2

2 of 4

MPS# 2857 4034 9853
0263

Mstr# 2857 4034 9842

0201

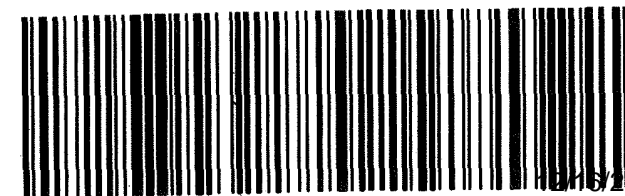
79 JOTA

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PRIORITY OVERNIGHT

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Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-154086.1
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@Eurofinset.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Job #: 500-207904-2
Address: 13715 Rider Trail North, City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email:		Due Date Requested: 12/9/2021 TAT Requested (days):	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
PO #: WO #: Project #: 50011597 SSOW#:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)	Total Number of Containers
Site: NRG Midwest Generation Waukegan		Sample Date	Special Instructions/Note:
Sample Identification - Client ID (Lab ID)		Sample Time	
MW-01 (500-207904-1)	12:23 Central	11/3/21	3
MW-02 (500-207904-2)	13:22 Central	11/3/21	3
MW-03 (500-207904-3)	14:24 Central	11/3/21	3
MW-04 (500-207904-4)	15:24 Central	11/3/21	3
Matrix (Water, Swab, Other) Preservation Code:		903.0/PreSep_21 Standard Target List	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
Water		904.0/PreSep_0 Standard Target List	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
Water		Ra226Ra228_GFPc	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
Water			Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
Water			Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.

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

Possible Hazard Identification
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

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

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

Relinquished by: *Stephanie Hammond* Date/Time: 11/4/21 10:30 Company: ETA-CAT
 Relinquished by: FEDEX Date/Time: 11/5/21 13:39 Company: ETA STL
 Relinquished by: _____ Date/Time: _____ Company: _____

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



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:		
Shipping/Receiving Company: TestAmerica Laboratories, Inc.		Phone:		Mockler, Diana J		State of Origin: Illinois		500-154099.1		
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 11/25/2021		E-Mail: Diana.Mockler@Eurofins.com		Page: 1 of 1		Job #: 500-207904-2		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):		Accreditations Required (See note): NELAP - Illinois		Preservation Codes:		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (specify)		
Email:		PO #:		Project #:		Field Filtered Sample (Yes or No)		903.0/PreSep_21 Standard Target List		
Project Name: Waukegan CCR		WO #:		50011597		Perform MS/MSD (Yes or No)		904.0/PreSep_0 Standard Target List		
Site: NRG Midwest Generation Waukegan		SSOW#:				Preservation Code:		R226Ra228_GFPc		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w/water, s/solid, o/water/oil, BT-Issue, A-AI)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Total Number of Containers	Special Instructions/Note:
MW-09 (500-207904-5)	11/4/21	13:24 Central	Water	Water	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-11 (500-207904-6)	11/4/21	11:09 Central	Water	Water	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-14 (500-207904-7)	11/4/21	12:20 Central	Water	Water	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
MW-16 (500-207904-8)	11/4/21	14:28 Central	Water	Water	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
Duplicate (500-207904-9)	11/4/21	Central	Water	Water	X	X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

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

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Stephanie Hernandez* Date/Time: 11/5/21 1630
 Relinquished by: *Michelle Keminwaga* Date/Time: NOV 08 2021
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: _____

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

Received by: **FED EX**
 Received by: *Michelle Keminwaga*
 Date/Time: 09:05
 Date/Time: NOV 08 2021
 Company: *ETA S2L*



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-207904-2

Login Number: 207904

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1,0.8,-0.9,1.2,0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-207904-2

Login Number: 207904

List Number: 2

Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis

List Creation: 11/05/21 06:45 PM

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



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-207904-2

Login Number: 207904

List Number: 3

Creator: Korrinhizer, Micha L

List Source: Eurofins TestAmerica, St. Louis

List Creation: 11/08/21 02:23 PM

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



Lab Chronicle

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

Job ID: 500-207904-2

Client Sample ID: MW-01

Lab Sample ID: 500-207904-1

Date Collected: 11/03/21 12:23

Matrix: Water

Date Received: 11/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540407	12/06/21 13:28	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539784	12/01/21 14:14	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Client Sample ID: MW-02

Lab Sample ID: 500-207904-2

Date Collected: 11/03/21 13:22

Matrix: Water

Date Received: 11/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540407	12/06/21 13:28	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539784	12/01/21 14:15	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Client Sample ID: MW-03

Lab Sample ID: 500-207904-3

Date Collected: 11/03/21 14:24

Matrix: Water

Date Received: 11/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540407	12/06/21 13:29	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539784	12/01/21 14:15	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Client Sample ID: MW-04

Lab Sample ID: 500-207904-4

Date Collected: 11/03/21 15:24

Matrix: Water

Date Received: 11/04/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540407	12/06/21 13:29	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539784	12/01/21 14:15	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Lab Chronicle

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

Job ID: 500-207904-2

Client Sample ID: MW-09

Date Collected: 11/04/21 13:24

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540407	12/06/21 13:29	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539784	12/01/21 14:15	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Client Sample ID: MW-11

Date Collected: 11/04/21 11:09

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540406	12/06/21 13:32	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539996	12/01/21 14:17	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Client Sample ID: MW-14

Date Collected: 11/04/21 12:20

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540406	12/06/21 13:32	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539996	12/01/21 14:17	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Client Sample ID: MW-16

Date Collected: 11/04/21 14:28

Date Received: 11/05/21 09:55

Lab Sample ID: 500-207904-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540406	12/06/21 13:32	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539996	12/01/21 14:17	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Lab Chronicle

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

Job ID: 500-207904-2

Client Sample ID: Duplicate

Lab Sample ID: 500-207904-9

Date Collected: 11/04/21 00:00

Matrix: Water

Date Received: 11/05/21 09:55

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			536245	11/12/21 09:23	LPS	TAL SL
Total/NA	Analysis	903.0		1	540406	12/06/21 13:33	ANW	TAL SL
Total/NA	Prep	PrecSep_0			536394	11/12/21 10:48	LPS	TAL SL
Total/NA	Analysis	904.0		1	539996	12/01/21 14:17	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	542342	12/15/21 17:45	EMH	TAL SL

Laboratory References:

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



Accreditation/Certification Summary

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

Job ID: 500-207904-2

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-22

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

Tracer/Carrier Summary

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

Job ID: 500-207904-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
500-207904-1	MW-01	81.5	
500-207904-1 DU	MW-01	63.5	
500-207904-2	MW-02	90.4	
500-207904-3	MW-03	91.1	
500-207904-4	MW-04	88.9	
500-207904-5	MW-09	91.6	
500-207904-6	MW-11	86.8	
500-207904-7	MW-14	76.5	
500-207904-8	MW-16	92.4	
500-207904-9	Duplicate	92.7	
LCS 160-536245/1-A	Lab Control Sample	87.6	
MB 160-536245/25-A	Method Blank	91.4	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-207904-1	MW-01	81.5	89.3
500-207904-1 DU	MW-01	63.5	87.9
500-207904-2	MW-02	90.4	88.2
500-207904-3	MW-03	91.1	87.5
500-207904-4	MW-04	88.9	89.3
500-207904-5	MW-09	91.6	90.8
500-207904-6	MW-11	86.8	90.8
500-207904-7	MW-14	76.5	89.7
500-207904-8	MW-16	92.4	90.1
500-207904-9	Duplicate	92.7	92.0
LCS 160-536394/1-A	Lab Control Sample	87.6	82.2
MB 160-536394/25-A	Method Blank	91.4	83.7
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			