



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and
CORRECTIVE ACTION REPORT - 2019**

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

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January 31, 2020

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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.

Based on the second semi-annual detection monitoring event for 2018, an Alternate Source Demonstration (ASD) was completed for Appendix III parameters Calcium (Ca) and Total Dissolved Solids (TDS) at well location MW-16. The ASD was completed on March 11, 2019 in accordance with Section 257.94(e)(2) of the CCR Rule and the results are summarized in section 4.1 of this report.

The 2018 CCR Compliance Annual Groundwater Monitoring and Corrective Action Report was submitted on January 31, 2019. This annual report covers the work performed relative to CCR groundwater monitoring for the calendar year 2019. It does not duplicate information or activities previously reported for 2018. It is prepared in accordance with Section 257.90(e)(1-5) and summarizes the sampling procedures used, provides an evaluation of groundwater flow conditions, summarizes the analytical data generated, and provides a discussion of the alternate source demonstration completed as a basis for determining the appropriate next phase of compliance activities.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network 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 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.

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 and 3. A review of the maps indicates a consistent 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)

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. 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 2019 is provided in Table 3, in accordance with 257.90 (e)(3).

3.2 Data Summary

The analytical data from the detection monitoring groundwater sampling for Appendix III parameters are provided in Table 4 which includes calculated Prediction Limits (PLs) established in the initial CCR Groundwater Monitoring Statistical Evaluation Summary dated January 2018 for data comparison purposes. The downgradient intrawell prediction limits were established for the parameters which were part of the Alternate Source Demonstrations (see 2018 CCR Compliance Report and discussion in Section 4.1 below).

Confirmatory resampling events were limited to any potential statistically significant increases (SSI) for specific parameters at specific wells for parameters that were either not covered in the ASD or sufficiently addressed in the ASD. The second 2019 semi-annual sampling data indicated TDS above the calculated statistical interwell and intrawell Prediction Limits (PLs) at well MW-16. KPRG performed a confirmatory resampling event on December 27, 2019 to confirm that the noted value was not due to sampling or laboratory error. The resample data showed a decrease in concentration from the previous sampling event however, the concentration was still above the calculated PLs. TDS at well MW-16 was addressed in the ASD dated March 11, 2019 which concluded that TDS (and calcium) fluctuations at well MW-16 are associated with conditions other than a release of leachate from the regulated units (see Section 4.1).

3.3 Current Status

The ASD completed on March 11, 2019 concluded that the noted SSIs for Ca and TDS at MW-16 are not the result of leakage of leachate from the regulated units but rather from other potential source(s). Therefore, it was recommended that the station remain in routine detection monitoring.

4.0 OTHER REQUIRED SUBMITTALS

4.1 Alternate Source Demonstration

The ASD was completed March 11, 2019 for calcium and TDS at well location MW-16 in accordance with Section 257.94(e)(2) of the CCR Rule for the Waukegan Generating Station West and East Ash Ponds and as required under Section 257.94(e)(2) a full copy of the ASD is provided in Appendix B. Ash and water samples were collected from each of the two ponds (East and West) and analyzed using the Leaching Environmental Assessment Framework (LEAF) method to determine whether the noted SSIs may be associated with an actual release from the regulated unit(s) or if another potential source in the vicinity of the ash ponds may be affecting the local groundwater quality.

It was concluded that the SSIs for calcium and TDS at MW-16 are not the result of a release of leachate from the regulated units (East and West Ash Ponds) but rather from other potential source(s). The recommendation was to continue with routine detection monitoring.

5.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The detection monitoring requirements in accordance with the CCR Rule have been successfully met. Groundwater monitoring wells that had analytical results showing parameter concentrations above established PLs were resampled to minimize potential for a false positive. A second ASD was completed which determined that potential SSIs for calcium and TDS at well location MW-16 are from other sources, and not leakage of leachate from the regulated units (East and West Ash Ponds). At this time, it is recommended that the station stay in routine detection monitoring.

6.0 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.
- C.W. Fetter, Jr., Applied Hydrogeology. Charles E. Merrill Publishing Co., 1980.

FIGURES



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CCR MONITORING WELL SITE MAP

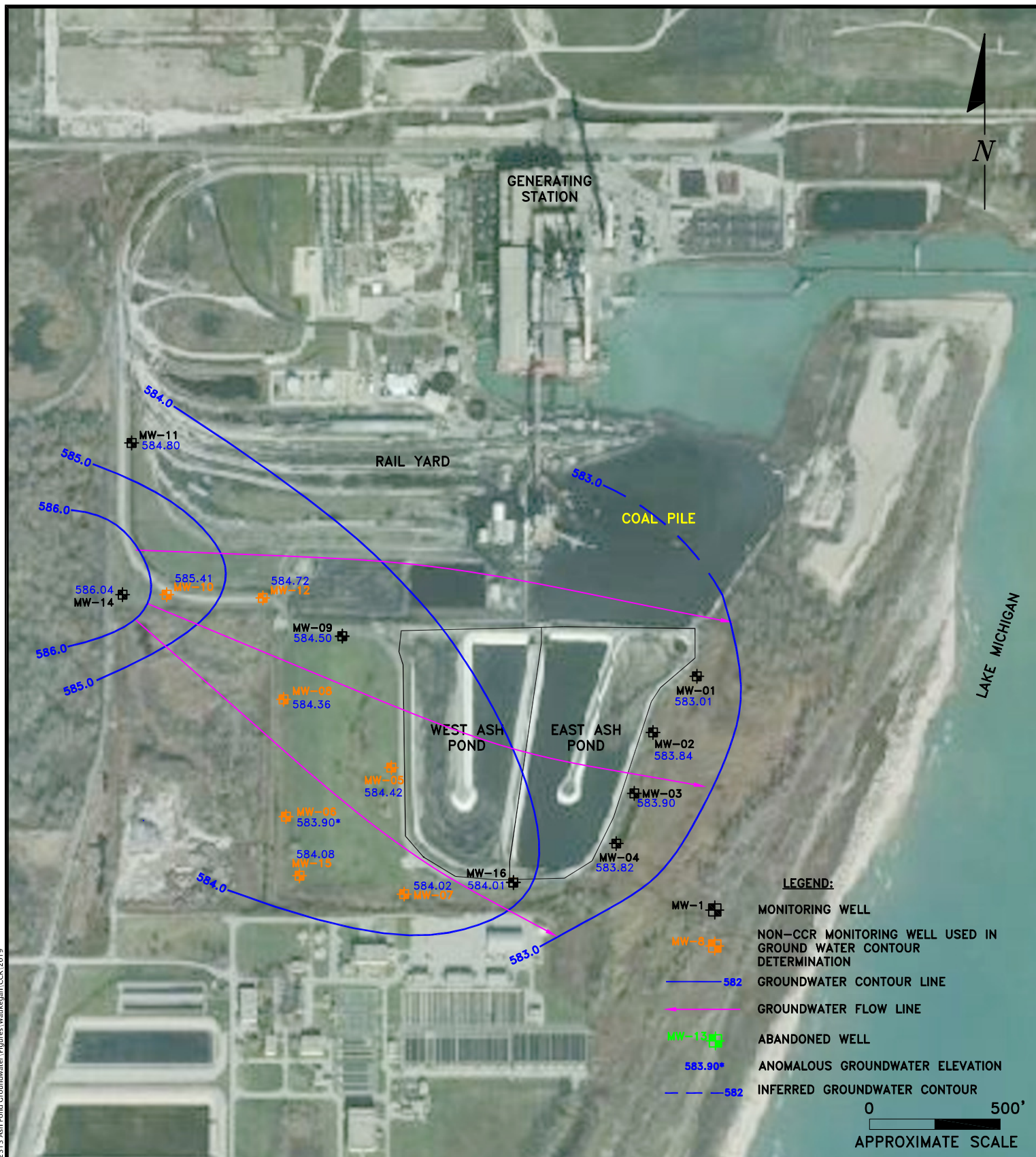
WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 550'

Date: January 2, 2018

KPRG Project No. 12313.2

FIGURE 1



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GROUNDWATER CONTOUR MAP 05/2019

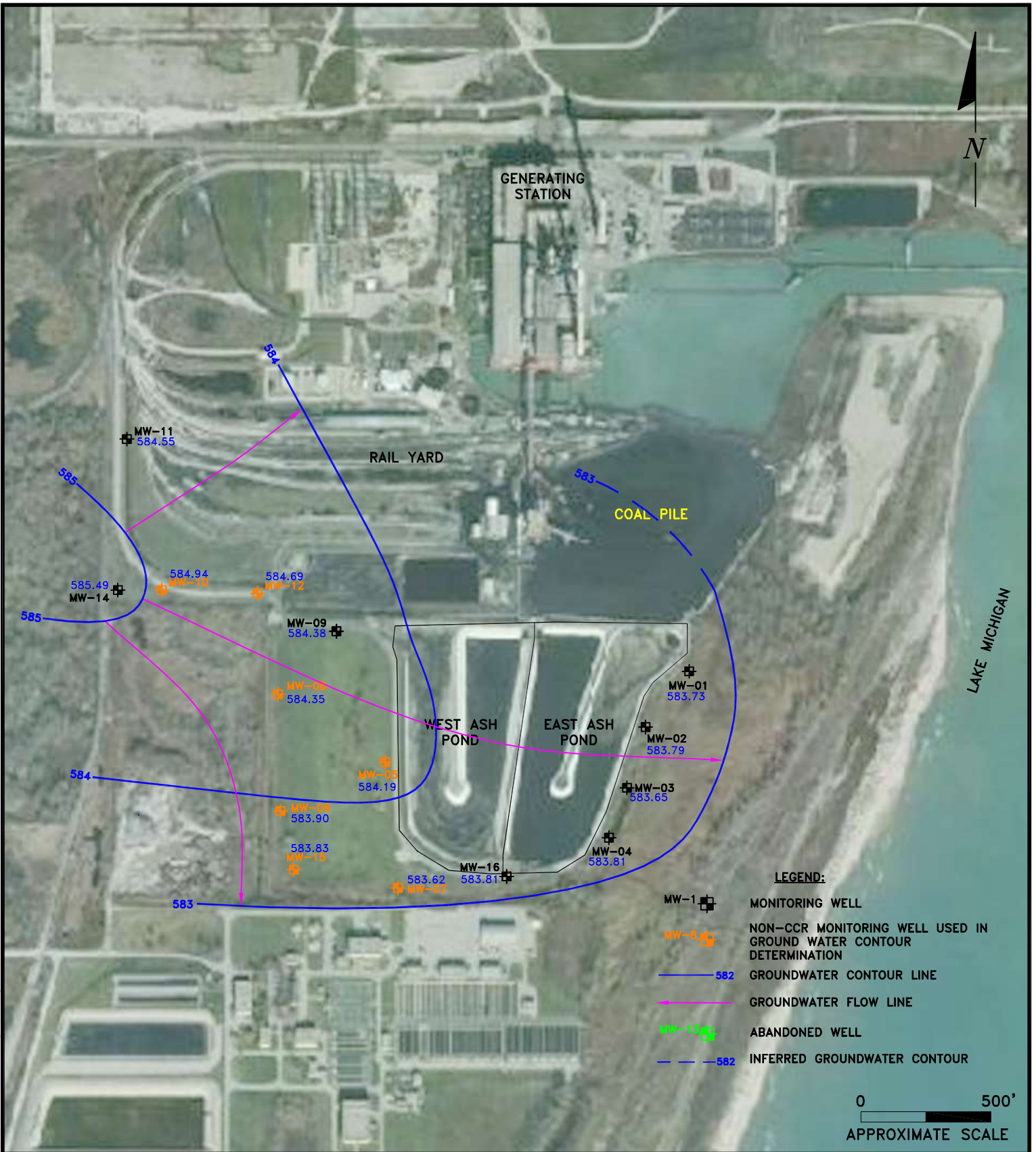
WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500'

Date: May 20, 2019

KPRG Project No. 12313.2

FIGURE 2



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GROUNDWATER CONTOUR MAP 11/2019

WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 500'

Date: December 20, 2019

KPRG Project No. 12313.2

FIGURE 3

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
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
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
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

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
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
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
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

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

* Kavg - Average hydraulic conductivity (feet/second) from Hydrogeologic Assessment Report, Patrick Engineering, February 2011.

** - Porosity estimate from Applied Hydrogeology, Fetter, 1980.

Table 3. CCR Groundwater Sample Collection Summary for 2019 - 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)	2	5/15/2019	D
		11/19/2019	D
MW-11 (Background)	2	5/15/2019	D
		11/19/2019	D
MW-14 (Background)	2	5/15/2019	D
		11/19/2019	D
MW-01 (Downgradient)	2	5/14/2019	D
		11/19/2019	D
MW-02 (Downgradient)	2	5/14/2019	D
		11/19/2019	D
MW-03 (Downgradient)	2	5/14/2019	D
		11/19/2019	D
MW-04 (Downgradient)	2	5/14/2019	D
		11/19/2019	D
MW-16 (Downgradient)	2	5/15/2019	D
		11/19/2019	D

Table 4. Semi-Annual Detection Monitoring - Appendix III Groundwater Analytical Results Thru 2019 - 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
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
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
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

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. Semi-Annual Detection Monitoring - Appendix III Groundwater Analytical Results Thru 2019 - 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	0.68	7.37	270	900
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
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
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

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 2019 Detection Monitoring

ANALYTICAL REPORT

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

Laboratory Job ID: 500-163477-1
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:
5/31/2019 10:12:32 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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

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

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Case Narrative

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

Job ID: 500-163477-1

Job ID: 500-163477-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-163477-1

Comments

No additional comments.

Receipt

The samples were received on 5/16/2019 11:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.9° C, 3.9° C and 3.9° C.

Metals

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

General Chemistry

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

Method Summary

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

Job ID: 500-163477-1

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 PEN
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

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

Sample Summary

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

Job ID: 500-163477-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-163477-1	MW-01	Water	05/14/19 11:55	05/16/19 11:10	
500-163477-2	MW-02	Water	05/14/19 13:00	05/16/19 11:10	
500-163477-3	MW-03	Water	05/14/19 13:55	05/16/19 11:10	
500-163477-4	MW-04	Water	05/14/19 14:55	05/16/19 11:10	
500-163477-5	MW-16	Water	05/15/19 09:35	05/16/19 11:10	
500-163477-6	MW-09	Water	05/15/19 11:55	05/16/19 11:10	
500-163477-7	MW-14	Water	05/15/19 13:15	05/16/19 11:10	
500-163477-8	MW-11	Water	05/15/19 14:25	05/16/19 11:10	
500-163477-9	Duplicate	Water	05/14/19 00:00	05/16/19 11:10	

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-01

Date Collected: 05/14/19 11:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-1

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		05/17/19 16:22	05/21/19 03:06	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		05/17/19 16:22	05/21/19 19:47	1
Arsenic	0.067		0.0010		mg/L		05/17/19 16:22	05/21/19 19:47	1
Barium	0.032		0.0025		mg/L		05/17/19 16:22	05/21/19 19:47	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:47	1
Boron	2.2		0.50		mg/L		05/17/19 16:22	05/22/19 15:57	10
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:47	1
Calcium	56		0.20		mg/L		05/17/19 16:22	05/21/19 19:47	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 19:47	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:47	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:47	1
Molybdenum	0.053		0.0050		mg/L		05/17/19 16:22	05/21/19 19:47	1
Selenium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 19:47	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 19:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	560		10		mg/L			05/20/19 08:08	1
Chloride	45		2.0		mg/L			05/29/19 10:27	1
Fluoride	0.18		0.10		mg/L			05/24/19 23:08	1
Sulfate	250		50		mg/L			05/29/19 10:42	10

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-02

Date Collected: 05/14/19 13:00

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-2

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		05/17/19 16:22	05/21/19 03:18	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		05/17/19 16:22	05/21/19 19:50	1
Arsenic	0.0094		0.0010		mg/L		05/17/19 16:22	05/21/19 19:50	1
Barium	0.013		0.0025		mg/L		05/17/19 16:22	05/21/19 19:50	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:50	1
Boron	2.9		0.50		mg/L		05/17/19 16:22	05/22/19 16:01	10
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:50	1
Calcium	47		0.20		mg/L		05/17/19 16:22	05/21/19 19:50	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 19:50	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:50	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:50	1
Molybdenum	0.069		0.0050		mg/L		05/17/19 16:22	05/21/19 19:50	1
Selenium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 19:50	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 19:50	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			05/20/19 08:10	1
Chloride	49		2.0		mg/L			05/29/19 10:28	1
Fluoride	1.0		0.10		mg/L			05/24/19 23:20	1
Sulfate	140		50		mg/L			05/29/19 10:42	10

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-03

Date Collected: 05/14/19 13:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-3

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		05/17/19 16:22	05/21/19 03:23	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		05/17/19 16:22	05/21/19 19:54	1
Arsenic	0.0059		0.0010		mg/L		05/17/19 16:22	05/21/19 19:54	1
Barium	0.022		0.0025		mg/L		05/17/19 16:22	05/21/19 19:54	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:54	1
Boron	4.2		0.50		mg/L		05/17/19 16:22	05/22/19 16:05	10
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:54	1
Calcium	86		0.20		mg/L		05/17/19 16:22	05/21/19 19:54	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 19:54	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:54	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:54	1
Molybdenum	0.053		0.0050		mg/L		05/17/19 16:22	05/21/19 19:54	1
Selenium	0.0061		0.0025		mg/L		05/17/19 16:22	05/21/19 19:54	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 19:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	660		10		mg/L			05/20/19 08:13	1
Chloride	17		2.0		mg/L			05/29/19 10:29	1
Fluoride	0.59		0.10		mg/L			05/24/19 23:25	1
Sulfate	270		50		mg/L			05/29/19 10:38	10

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-04

Date Collected: 05/14/19 14:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-4

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		05/17/19 16:22	05/21/19 03:27	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		05/17/19 16:22	05/21/19 19:58	1
Arsenic	0.0026		0.0010		mg/L		05/17/19 16:22	05/21/19 19:58	1
Barium	0.039		0.0025		mg/L		05/17/19 16:22	05/21/19 19:58	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:58	1
Boron	3.3		0.50		mg/L		05/17/19 16:22	05/22/19 16:10	10
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:58	1
Calcium	100		0.20		mg/L		05/17/19 16:22	05/21/19 19:58	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 19:58	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:58	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:58	1
Molybdenum	0.070		0.0050		mg/L		05/17/19 16:22	05/21/19 19:58	1
Selenium	0.0040		0.0025		mg/L		05/17/19 16:22	05/21/19 19:58	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 19:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	730		10		mg/L			05/20/19 08:15	1
Chloride	58		2.0		mg/L			05/29/19 10:30	1
Fluoride	0.64		0.10		mg/L			05/24/19 23:28	1
Sulfate	200		50		mg/L			05/29/19 10:38	10

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-16

Date Collected: 05/15/19 09:35

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		05/17/19 16:22	05/21/19 03:31	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		05/17/19 16:22	05/21/19 20:09	1
Arsenic	0.0011		0.0010		mg/L		05/17/19 16:22	05/21/19 20:09	1
Barium	0.029		0.0025		mg/L		05/17/19 16:22	05/21/19 20:09	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:09	1
Boron	2.9		0.50		mg/L		05/17/19 16:22	05/22/19 16:14	10
Cadmium	0.0030		0.00050		mg/L		05/17/19 16:22	05/21/19 20:09	1
Calcium	400		2.0		mg/L		05/17/19 16:22	05/22/19 16:14	10
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 20:09	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:09	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:09	1
Molybdenum	0.0086		0.0050		mg/L		05/17/19 16:22	05/21/19 20:09	1
Selenium	0.0039		0.0025		mg/L		05/17/19 16:22	05/21/19 20:09	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 20:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2000		10		mg/L			05/20/19 08:18	1
Chloride	65		2.0		mg/L			05/29/19 10:36	1
Fluoride	0.31		0.10		mg/L			05/24/19 23:31	1
Sulfate	990		200		mg/L			05/29/19 12:30	40

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-09

Lab Sample ID: 500-163477-6

Date Collected: 05/15/19 11:55

Matrix: Water

Date Received: 05/16/19 11:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.035		0.010		mg/L		05/17/19 16:22	05/21/19 03:35	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		05/17/19 16:22	05/21/19 20:13	1
Arsenic	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:13	1
Barium	0.0073		0.0025		mg/L		05/17/19 16:22	05/21/19 20:13	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:13	1
Boron	26		5.0		mg/L		05/17/19 16:22	05/22/19 16:18	100
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:13	1
Calcium	160		0.20		mg/L		05/17/19 16:22	05/21/19 20:13	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 20:13	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:13	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:13	1
Molybdenum	0.54		0.0050		mg/L		05/17/19 16:22	05/21/19 20:13	1
Selenium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 20:13	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 20:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		10		mg/L			05/20/19 08:20	1
Chloride	10		2.0		mg/L			05/29/19 10:36	1
Fluoride	0.11		0.10		mg/L			05/24/19 23:34	1
Sulfate	400		100		mg/L			05/29/19 12:12	20

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-14

Date Collected: 05/15/19 13:15

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-7

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		05/17/19 16:22	05/21/19 03:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0036		0.0030		mg/L		05/17/19 16:22	05/21/19 20:17	1
Arsenic	2.7		0.0010		mg/L		05/17/19 16:22	05/21/19 20:17	1
Barium	0.091		0.0025		mg/L		05/17/19 16:22	05/21/19 20:17	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:17	1
Boron	0.69		0.050		mg/L		05/17/19 16:22	05/22/19 16:22	1
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:17	1
Calcium	110		0.20		mg/L		05/17/19 16:22	05/21/19 20:17	1
Chromium	0.71		0.0050		mg/L		05/17/19 16:22	05/21/19 20:17	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:17	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:17	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 20:17	1
Selenium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 20:17	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 20:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	780		10		mg/L			05/20/19 08:23	1
Chloride	190		10		mg/L			05/29/19 11:14	5
Fluoride	0.23		0.10		mg/L			05/24/19 23:52	1
Sulfate	35		10		mg/L			05/29/19 12:12	2

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: MW-11

Lab Sample ID: 500-163477-8

Date Collected: 05/15/19 14:25

Matrix: Water

Date Received: 05/16/19 11:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		05/17/19 16:22	05/21/19 03:44	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		05/17/19 16:22	05/21/19 20:20	1
Arsenic	0.30		0.0010		mg/L		05/17/19 16:22	05/21/19 20:20	1
Barium	0.048		0.0025		mg/L		05/17/19 16:22	05/21/19 20:20	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:20	1
Boron	3.2		0.50		mg/L		05/17/19 16:22	05/22/19 16:26	10
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:20	1
Calcium	120		0.20		mg/L		05/17/19 16:22	05/21/19 20:20	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 20:20	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:20	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:20	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 20:20	1
Selenium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 20:20	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 20:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 10:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			05/20/19 08:26	1
Chloride	260		10		mg/L			05/29/19 11:14	5
Fluoride	0.13		0.10		mg/L			05/24/19 23:55	1
Sulfate	31		10		mg/L			05/29/19 12:12	2

Client Sample Results

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

Job ID: 500-163477-1

Client Sample ID: Duplicate

Lab Sample ID: 500-163477-9

Date Collected: 05/14/19 00:00

Matrix: Water

Date Received: 05/16/19 11:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		05/17/19 16:22	05/21/19 03:48	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		05/17/19 16:22	05/21/19 20:24	1
Arsenic	0.0011		0.0010		mg/L		05/17/19 16:22	05/21/19 20:24	1
Barium	0.029		0.0025		mg/L		05/17/19 16:22	05/21/19 20:24	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:24	1
Boron	2.6		0.50		mg/L		05/17/19 16:22	05/22/19 16:30	10
Cadmium	0.0030		0.00050		mg/L		05/17/19 16:22	05/21/19 20:24	1
Calcium	380		2.0		mg/L		05/17/19 16:22	05/22/19 16:30	10
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 20:24	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 20:24	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 20:24	1
Molybdenum	0.0091		0.0050		mg/L		05/17/19 16:22	05/21/19 20:24	1
Selenium	0.0040		0.0025		mg/L		05/17/19 16:22	05/21/19 20:24	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 20:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 10:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2000		10		mg/L			05/20/19 08:28	1
Chloride	66		2.0		mg/L			05/29/19 10:41	1
Fluoride	0.32		0.10		mg/L			05/24/19 23:59	1
Sulfate	1000		200		mg/L			05/29/19 12:30	40

Definitions/Glossary

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

Job ID: 500-163477-1

Glossary

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

QC Association Summary

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

Job ID: 500-163477-1

Metals

Prep Batch: 485963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total Recoverable	Water	3005A	
500-163477-2	MW-02	Total Recoverable	Water	3005A	
500-163477-3	MW-03	Total Recoverable	Water	3005A	
500-163477-4	MW-04	Total Recoverable	Water	3005A	
500-163477-5	MW-16	Total Recoverable	Water	3005A	
500-163477-6	MW-09	Total Recoverable	Water	3005A	
500-163477-7	MW-14	Total Recoverable	Water	3005A	
500-163477-8	MW-11	Total Recoverable	Water	3005A	
500-163477-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-485963/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-485963/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 486234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total Recoverable	Water	6010C	485963
500-163477-2	MW-02	Total Recoverable	Water	6010C	485963
500-163477-3	MW-03	Total Recoverable	Water	6010C	485963
500-163477-4	MW-04	Total Recoverable	Water	6010C	485963
500-163477-5	MW-16	Total Recoverable	Water	6010C	485963
500-163477-6	MW-09	Total Recoverable	Water	6010C	485963
500-163477-7	MW-14	Total Recoverable	Water	6010C	485963
500-163477-8	MW-11	Total Recoverable	Water	6010C	485963
500-163477-9	Duplicate	Total Recoverable	Water	6010C	485963
MB 500-485963/1-A	Method Blank	Total Recoverable	Water	6010C	485963
LCS 500-485963/2-A	Lab Control Sample	Total Recoverable	Water	6010C	485963

Analysis Batch: 486517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total Recoverable	Water	6020A	485963
500-163477-2	MW-02	Total Recoverable	Water	6020A	485963
500-163477-3	MW-03	Total Recoverable	Water	6020A	485963
500-163477-4	MW-04	Total Recoverable	Water	6020A	485963
500-163477-5	MW-16	Total Recoverable	Water	6020A	485963
500-163477-6	MW-09	Total Recoverable	Water	6020A	485963
500-163477-7	MW-14	Total Recoverable	Water	6020A	485963
500-163477-8	MW-11	Total Recoverable	Water	6020A	485963
500-163477-9	Duplicate	Total Recoverable	Water	6020A	485963
MB 500-485963/1-A	Method Blank	Total Recoverable	Water	6020A	485963
LCS 500-485963/2-A	Lab Control Sample	Total Recoverable	Water	6020A	485963

Analysis Batch: 486764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total Recoverable	Water	6020A	485963
500-163477-2	MW-02	Total Recoverable	Water	6020A	485963
500-163477-3	MW-03	Total Recoverable	Water	6020A	485963
500-163477-4	MW-04	Total Recoverable	Water	6020A	485963
500-163477-5	MW-16	Total Recoverable	Water	6020A	485963
500-163477-6	MW-09	Total Recoverable	Water	6020A	485963
500-163477-7	MW-14	Total Recoverable	Water	6020A	485963
500-163477-8	MW-11	Total Recoverable	Water	6020A	485963
500-163477-9	Duplicate	Total Recoverable	Water	6020A	485963

Eurofins TestAmerica, Chicago

QC Association Summary

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

Job ID: 500-163477-1

Metals (Continued)

Analysis Batch: 486764 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-485963/1-A	Method Blank	Total Recoverable	Water	6020A	485963
LCS 500-485963/2-A	Lab Control Sample	Total Recoverable	Water	6020A	485963

Prep Batch: 487015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total/NA	Water	7470A	
500-163477-2	MW-02	Total/NA	Water	7470A	
500-163477-3	MW-03	Total/NA	Water	7470A	
500-163477-4	MW-04	Total/NA	Water	7470A	
500-163477-5	MW-16	Total/NA	Water	7470A	
500-163477-6	MW-09	Total/NA	Water	7470A	
500-163477-7	MW-14	Total/NA	Water	7470A	
500-163477-8	MW-11	Total/NA	Water	7470A	
500-163477-9	Duplicate	Total/NA	Water	7470A	
MB 500-487015/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-487015/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-163477-6 MS	MW-09	Total/NA	Water	7470A	
500-163477-6 MSD	MW-09	Total/NA	Water	7470A	
500-163477-6 DU	MW-09	Total/NA	Water	7470A	

Analysis Batch: 487383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total/NA	Water	7470A	487015
500-163477-2	MW-02	Total/NA	Water	7470A	487015
500-163477-3	MW-03	Total/NA	Water	7470A	487015
500-163477-4	MW-04	Total/NA	Water	7470A	487015
500-163477-5	MW-16	Total/NA	Water	7470A	487015
500-163477-6	MW-09	Total/NA	Water	7470A	487015
500-163477-7	MW-14	Total/NA	Water	7470A	487015
500-163477-8	MW-11	Total/NA	Water	7470A	487015
500-163477-9	Duplicate	Total/NA	Water	7470A	487015
MB 500-487015/12-A	Method Blank	Total/NA	Water	7470A	487015
LCS 500-487015/13-A	Lab Control Sample	Total/NA	Water	7470A	487015
500-163477-6 MS	MW-09	Total/NA	Water	7470A	487015
500-163477-6 MSD	MW-09	Total/NA	Water	7470A	487015
500-163477-6 DU	MW-09	Total/NA	Water	7470A	487015

General Chemistry

Analysis Batch: 442466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-163477-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-163477-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-163477-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
MB 400-442466/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-442466/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-442466/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Eurofins TestAmerica, Chicago

QC Association Summary

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

Job ID: 500-163477-1

General Chemistry

Analysis Batch: 442517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-5	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-163477-6	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-163477-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-163477-8	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-163477-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 400-442517/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-442517/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-442517/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 486078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total/NA	Water	SM 2540C	
500-163477-2	MW-02	Total/NA	Water	SM 2540C	
500-163477-3	MW-03	Total/NA	Water	SM 2540C	
500-163477-4	MW-04	Total/NA	Water	SM 2540C	
500-163477-5	MW-16	Total/NA	Water	SM 2540C	
500-163477-6	MW-09	Total/NA	Water	SM 2540C	
500-163477-7	MW-14	Total/NA	Water	SM 2540C	
500-163477-8	MW-11	Total/NA	Water	SM 2540C	
500-163477-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-486078/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-486078/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 487145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total/NA	Water	SM 4500 F C	
500-163477-2	MW-02	Total/NA	Water	SM 4500 F C	
500-163477-3	MW-03	Total/NA	Water	SM 4500 F C	
500-163477-4	MW-04	Total/NA	Water	SM 4500 F C	
500-163477-5	MW-16	Total/NA	Water	SM 4500 F C	
500-163477-6	MW-09	Total/NA	Water	SM 4500 F C	
500-163477-7	MW-14	Total/NA	Water	SM 4500 F C	
500-163477-8	MW-11	Total/NA	Water	SM 4500 F C	
500-163477-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-487145/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-487145/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-163477-1 MS	MW-01	Total/NA	Water	SM 4500 F C	
500-163477-1 MSD	MW-01	Total/NA	Water	SM 4500 F C	

Analysis Batch: 487931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-163477-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-163477-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-163477-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-163477-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-163477-5	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-163477-6	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-163477-7	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-163477-8	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-163477-9	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-487931/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Eurofins TestAmerica, Chicago

QC Association Summary

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

Job ID: 500-163477-1

General Chemistry (Continued)

Analysis Batch: 487931 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-487931/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-163477-4 MS	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-163477-4 MSD	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-163477-6 MS	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-163477-6 MSD	MW-09	Total/NA	Water	SM 4500 Cl- E	

QC Sample Results

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

Job ID: 500-163477-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-485963/1-A
Matrix: Water
Analysis Batch: 486234

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 485963

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/17/19 16:22	05/21/19 02:53	1

Lab Sample ID: LCS 500-485963/2-A
Matrix: Water
Analysis Batch: 486234

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 485963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.507		mg/L		101	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-485963/1-A
Matrix: Water
Analysis Batch: 486517

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 485963

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/19 16:22	05/21/19 19:28	1
Arsenic	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:28	1
Barium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 19:28	1
Beryllium	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:28	1
Cadmium	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:28	1
Calcium	<0.20		0.20		mg/L		05/17/19 16:22	05/21/19 19:28	1
Chromium	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 19:28	1
Cobalt	<0.0010		0.0010		mg/L		05/17/19 16:22	05/21/19 19:28	1
Lead	<0.00050		0.00050		mg/L		05/17/19 16:22	05/21/19 19:28	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/19 16:22	05/21/19 19:28	1
Selenium	<0.0025		0.0025		mg/L		05/17/19 16:22	05/21/19 19:28	1
Thallium	<0.0020		0.0020		mg/L		05/17/19 16:22	05/21/19 19:28	1

Lab Sample ID: MB 500-485963/1-A
Matrix: Water
Analysis Batch: 486764

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 485963

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/17/19 16:22	05/22/19 15:28	1

Lab Sample ID: LCS 500-485963/2-A
Matrix: Water
Analysis Batch: 486517

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 485963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.516		mg/L		103	80 - 120
Arsenic	0.100	0.0933		mg/L		93	80 - 120
Barium	2.00	1.97		mg/L		98	80 - 120
Beryllium	0.0500	0.0514		mg/L		103	80 - 120
Cadmium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	10.0	9.94		mg/L		99	80 - 120
Chromium	0.200	0.203		mg/L		101	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-163477-1

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

Lab Sample ID: LCS 500-485963/2-A

Matrix: Water

Analysis Batch: 486517

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 485963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	0.956		mg/L		96	80 - 120
Selenium	0.100	0.0948		mg/L		95	80 - 120
Thallium	0.100	0.107		mg/L		107	80 - 120

Lab Sample ID: LCS 500-485963/2-A

Matrix: Water

Analysis Batch: 486764

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 485963

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.01		mg/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-487015/12-A

Matrix: Water

Analysis Batch: 487383

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 487015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/19 10:30	05/28/19 09:03	1

Lab Sample ID: LCS 500-487015/13-A

Matrix: Water

Analysis Batch: 487383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 487015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00210		mg/L		105	80 - 120

Lab Sample ID: 500-163477-6 MS

Matrix: Water

Analysis Batch: 487383

Client Sample ID: MW-09

Prep Type: Total/NA

Prep Batch: 487015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.000999		mg/L		100	75 - 125

Lab Sample ID: 500-163477-6 MSD

Matrix: Water

Analysis Batch: 487383

Client Sample ID: MW-09

Prep Type: Total/NA

Prep Batch: 487015

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.000947		mg/L		95	75 - 125	5	20

Lab Sample ID: 500-163477-6 DU

Matrix: Water

Analysis Batch: 487383

Client Sample ID: MW-09

Prep Type: Total/NA

Prep Batch: 487015

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

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-163477-1

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

Lab Sample ID: MB 500-486078/1
Matrix: Water
Analysis Batch: 486078

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			05/20/19 07:37	1

Lab Sample ID: LCS 500-486078/2
Matrix: Water
Analysis Batch: 486078

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	272		mg/L		109	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-487931/4
Matrix: Water
Analysis Batch: 487931

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			05/29/19 10:25	1

Lab Sample ID: LCS 500-487931/5
Matrix: Water
Analysis Batch: 487931

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.4		mg/L		101	85 - 115

Lab Sample ID: 500-163477-4 MS
Matrix: Water
Analysis Batch: 487931

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	58		50.0	99.4		mg/L		82	75 - 125

Lab Sample ID: 500-163477-4 MSD
Matrix: Water
Analysis Batch: 487931

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	58		50.0	100		mg/L		84	75 - 125	1	20

Lab Sample ID: 500-163477-6 MS
Matrix: Water
Analysis Batch: 487931

Client Sample ID: MW-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10		50.0	57.1		mg/L		94	75 - 125

QC Sample Results

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

Job ID: 500-163477-1

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

Lab Sample ID: 500-163477-6 MSD

Matrix: Water

Analysis Batch: 487931

Client Sample ID: MW-09

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10		50.0	57.4		mg/L		94	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-487145/3

Matrix: Water

Analysis Batch: 487145

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			05/24/19 22:59	1

Lab Sample ID: LCS 500-487145/4

Matrix: Water

Analysis Batch: 487145

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	80 - 120

Lab Sample ID: 500-163477-1 MS

Matrix: Water

Analysis Batch: 487145

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	0.18		5.00	5.31		mg/L		103	75 - 125

Lab Sample ID: 500-163477-1 MSD

Matrix: Water

Analysis Batch: 487145

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	0.18		5.00	5.31		mg/L		103	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-442466/6

Matrix: Water

Analysis Batch: 442466

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			05/29/19 09:19	1

Lab Sample ID: LCS 400-442466/7

Matrix: Water

Analysis Batch: 442466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.3		mg/L		102	90 - 110

Eurofins TestAmerica, Chicago

QC Sample Results

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

Job ID: 500-163477-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-442466/3

Matrix: Water

Analysis Batch: 442466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.09		mg/L		102	50 - 150

Lab Sample ID: MB 400-442517/6

Matrix: Water

Analysis Batch: 442517

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			05/29/19 11:30	1

Lab Sample ID: LCS 400-442517/7

Matrix: Water

Analysis Batch: 442517

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.2		mg/L		101	90 - 110

Lab Sample ID: MRL 400-442517/3

Matrix: Water

Analysis Batch: 442517

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		100	50 - 150

University Park, IL 60484-3101
phone 708.534.5200 fax 708.534.5211

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

[illegible]

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:	Carrier Tracking No(s):	COC No:																																																																
Client Contact:		Phone:		Lang. Eric A.	State of Origin:	500-121293.1																																																																
Shipping/Receiving				E-Mail: eric.lang@testamericainc.com	Illinois	Page: Page 1 of 1																																																																
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note):		Job #: 500-163477-1																																																																
Address: 3355 McLeMORE Drive,		Due Date Requested:		Analysis Requested		Preservation Codes:																																																																
City: Pensacola		5/29/2019		<table border="1"> <tr> <th colspan="2">Analysis Requested</th> <th rowspan="2">Field Filtered Sample (Yes or No)</th> <th rowspan="2">Perform MS/MSD (Yes or No)</th> <th rowspan="2">Total Number of Containers</th> <th rowspan="2">Special Instructions/Note:</th> </tr> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)</th> </tr> <tr> <td>MW-01 (500-163477-1)</td> <td>5/14/19</td> <td>11:55 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-02 (500-163477-2)</td> <td>5/14/19</td> <td>13:00 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-03 (500-163477-3)</td> <td>5/14/19</td> <td>13:55 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-04 (500-163477-4)</td> <td>5/14/19</td> <td>14:55 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-16 (500-163477-5)</td> <td>5/15/19</td> <td>09:35 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-09 (500-163477-6)</td> <td>5/15/19</td> <td>11:55 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-14 (500-163477-7)</td> <td>5/15/19</td> <td>13:15 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>MW-11 (500-163477-8)</td> <td>5/15/19</td> <td>14:25 Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> <tr> <td>Duplicate (500-163477-9)</td> <td>5/14/19</td> <td>Central</td> <td>Water</td> <td>X</td> <td>1</td> </tr> </table>		Analysis Requested		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)	MW-01 (500-163477-1)	5/14/19	11:55 Central	Water	X	1	MW-02 (500-163477-2)	5/14/19	13:00 Central	Water	X	1	MW-03 (500-163477-3)	5/14/19	13:55 Central	Water	X	1	MW-04 (500-163477-4)	5/14/19	14:55 Central	Water	X	1	MW-16 (500-163477-5)	5/15/19	09:35 Central	Water	X	1	MW-09 (500-163477-6)	5/15/19	11:55 Central	Water	X	1	MW-14 (500-163477-7)	5/15/19	13:15 Central	Water	X	1	MW-11 (500-163477-8)	5/15/19	14:25 Central	Water	X	1	Duplicate (500-163477-9)	5/14/19	Central	Water	X	1	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Analysis Requested		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)			Total Number of Containers	Special Instructions/Note:																																																															
Sample Date	Sample Time							Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)																																																													
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MW-04 (500-163477-4)	5/14/19	14:55 Central	Water	X	1																																																																	
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Duplicate (500-163477-9)	5/14/19	Central	Water	X	1																																																																	
State: FL, 32514		TAT Requested (days):																																																																				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		PO #:																																																																				
Email:		WO #:																																																																				
Project Name: Waukegan CCR		Project #:																																																																				
Site: NRG Midwest Generation Waukegan		SSOW#:																																																																				

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Primary Deliverable Rank: 2		Method of Shipment:	
Empty Kit Relinquished by:		Time:	
Relinquished by: <i>[Signature]</i>		Date: 5/17/19 1530	
Relinquished by:		Company: TA-CAP	
Relinquished by:		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time: 5/18/19 0334	
Relinquished by:		Company: TA	
Relinquished by:		Date/Time:	
Relinquished by:		Company:	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks: 4.2°C F208			

THE LEADER IN ENVIRONMENTAL TESTING

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-163477-1

Login Number: 163477

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	3.9,3.9,3.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (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: 500-163477-1

Login Number: 163477

List Number: 4

Creator: Shannon, Jonathon W

List Source: Eurofins TestAmerica, Pensacola

List Creation: 05/18/19 03:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2°C IR8
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 $<6\text{mm}$ (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: 500-163477-1

Login Number: 163477

List Number: 5

Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola

List Creation: 05/21/19 05:33 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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Lab Chronicle

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

Job ID: 500-163477-1

Client Sample ID: MW-01

Date Collected: 05/14/19 11:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:06	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 19:47	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 15:57	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:41	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:08	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	442466	05/29/19 10:42	RRC	TAL PEN

Client Sample ID: MW-02

Date Collected: 05/14/19 13:00

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:18	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 19:50	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 16:01	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:42	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:10	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:28	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	442466	05/29/19 10:42	RRC	TAL PEN

Client Sample ID: MW-03

Date Collected: 05/14/19 13:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:23	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 19:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 16:05	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:44	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-163477-1

Client Sample ID: MW-03

Date Collected: 05/14/19 13:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:13	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	442466	05/29/19 10:38	RRC	TAL PEN

Client Sample ID: MW-04

Date Collected: 05/14/19 14:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:27	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 19:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 16:10	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:46	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:15	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:28	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	442466	05/29/19 10:38	RRC	TAL PEN

Client Sample ID: MW-16

Date Collected: 05/15/19 09:35

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:31	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 20:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 16:14	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:47	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:18	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:31	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		40	442517	05/29/19 12:30	RRC	TAL PEN

Lab Chronicle

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

Job ID: 500-163477-1

Client Sample ID: MW-09

Date Collected: 05/15/19 11:55

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:35	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 20:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	486764	05/22/19 16:18	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:49	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	442517	05/29/19 12:12	RRC	TAL PEN

Client Sample ID: MW-14

Date Collected: 05/15/19 13:15

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:40	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 20:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486764	05/22/19 16:22	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 09:55	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:23	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	487931	05/29/19 11:14	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:52	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	442517	05/29/19 12:12	RRC	TAL PEN

Client Sample ID: MW-11

Date Collected: 05/15/19 14:25

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:44	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 20:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 16:26	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 10:01	MJG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-163477-1

Client Sample ID: MW-11

Date Collected: 05/15/19 14:25

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	487931	05/29/19 11:14	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:55	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	442517	05/29/19 12:12	RRC	TAL PEN

Client Sample ID: Duplicate

Date Collected: 05/14/19 00:00

Date Received: 05/16/19 11:10

Lab Sample ID: 500-163477-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	486234	05/21/19 03:48	JEF	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	486517	05/21/19 20:24	FXG	TAL CHI
Total Recoverable	Prep	3005A			485963	05/17/19 16:22	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	486764	05/22/19 16:30	FXG	TAL CHI
Total/NA	Prep	7470A			487015	05/24/19 10:30	MJG	TAL CHI
Total/NA	Analysis	7470A		1	487383	05/28/19 10:03	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	486078	05/20/19 08:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	487931	05/29/19 10:41	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	487145	05/24/19 23:59	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		40	442517	05/29/19 12:30	RRC	TAL PEN

Laboratory References:

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

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

Accreditation/Certification Summary

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

Job ID: 500-163477-1

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	05-30-19 *

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-20
West Virginia DEP	State Program	3	136	07-31-19

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

Eurofins TestAmerica, Chicago

ANALYTICAL REPORT

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

Laboratory Job ID: 500-173774-1
Client Project/Site: Waukegan CCR
Revision: 1

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

Attn: Richard Gnat



Authorized for release by:
12/20/2019 7:19:28 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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

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

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Case Narrative

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

Job ID: 500-173774-1

Job ID: 500-173774-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-173774-1

Comments

Revised Report - the analyte list has been corrected to the Appendix III list.

No additional comments.

Receipt

The samples were received on 11/20/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.4° C, 1.5° C, 2.0° C, 2.1° C, 2.9° C and 3.1° C.

Metals

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

General Chemistry

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

Method Summary

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

Job ID: 500-173774-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	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 PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	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

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

Sample Summary

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

Job ID: 500-173774-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-173774-1	MW-16	Water	11/19/19 09:17	11/20/19 09:00	
500-173774-2	MW-04	Water	11/19/19 10:15	11/20/19 09:00	
500-173774-3	MW-03	Water	11/19/19 11:00	11/20/19 09:00	
500-173774-4	MW-02	Water	11/19/19 11:35	11/20/19 09:00	
500-173774-5	MW-01	Water	11/19/19 12:13	11/20/19 09:00	
500-173774-6	MW-09	Water	11/19/19 13:08	11/20/19 09:00	
500-173774-7	MW-14	Water	11/19/19 14:15	11/20/19 09:00	
500-173774-8	MW-11	Water	11/19/19 15:17	11/20/19 09:00	
500-173774-9	Duplicate	Water	11/19/19 00:00	11/20/19 09:00	

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-16

Lab Sample ID: 500-173774-1

Date Collected: 11/19/19 09:17

Matrix: Water

Date Received: 11/20/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.2		1.0		mg/L		12/03/19 17:12	12/05/19 13:36	20
Calcium	410		4.0		mg/L		12/03/19 17:12	12/05/19 13:36	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3100		10		mg/L			11/22/19 10:31	1
Chloride	480		50		mg/L			12/05/19 18:29	25
Fluoride	0.46		0.10		mg/L			11/26/19 20:57	1
Sulfate	680	F2	150		mg/L			11/27/19 20:32	30

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-04

Date Collected: 11/19/19 10:15

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.9		0.50		mg/L		12/03/19 17:12	12/05/19 13:40	10
Calcium	120		0.20		mg/L		12/03/19 17:12	12/04/19 17:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	680		10		mg/L			11/22/19 10:34	1
Chloride	44		2.0		mg/L			12/05/19 18:30	1
Fluoride	0.75		0.10		mg/L			11/26/19 21:02	1
Sulfate	270		50		mg/L			11/27/19 20:32	10

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-03

Date Collected: 11/19/19 11:00

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.2		1.0		mg/L		12/03/19 17:12	12/05/19 13:48	20
Calcium	130		0.20		mg/L		12/03/19 17:12	12/04/19 17:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			11/22/19 10:36	1
Chloride	15		2.0		mg/L			12/05/19 18:34	1
Fluoride	0.25		0.10		mg/L			11/26/19 21:05	1
Sulfate	300		50		mg/L			11/27/19 20:32	10

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-02

Date Collected: 11/19/19 11:35

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.7		1.0		mg/L		12/03/19 17:12	12/05/19 13:51	20
Calcium	140		0.20		mg/L		12/03/19 17:12	12/04/19 17:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		10		mg/L			11/22/19 10:39	1
Chloride	43		2.0		mg/L			12/05/19 18:36	1
Fluoride	0.68		0.10		mg/L			11/26/19 21:09	1
Sulfate	270		50		mg/L			11/27/19 20:32	10

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-01

Date Collected: 11/19/19 12:13

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.3		0.50		mg/L		12/03/19 17:12	12/05/19 13:55	10
Calcium	38		0.20		mg/L		12/03/19 17:12	12/04/19 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10		mg/L			11/22/19 10:42	1
Chloride	39		2.0		mg/L			12/05/19 18:39	1
Fluoride	0.24		0.10		mg/L			11/26/19 21:14	1
Sulfate	240		50		mg/L			11/27/19 20:32	10

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-09

Date Collected: 11/19/19 13:08

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	22		5.0		mg/L		12/03/19 17:12	12/05/19 13:59	100
Calcium	160		0.20		mg/L		12/03/19 17:12	12/04/19 18:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	750		10		mg/L			11/22/19 10:44	1
Chloride	17		2.0		mg/L			12/05/19 18:39	1
Fluoride	0.16		0.10		mg/L			11/26/19 21:28	1
Sulfate	300		50		mg/L			11/27/19 20:32	10

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-14

Date Collected: 11/19/19 14:15

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.62		0.25		mg/L		12/03/19 17:12	12/05/19 14:14	5
Calcium	130		0.20		mg/L		12/03/19 17:12	12/04/19 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	630		10		mg/L			11/22/19 10:47	1
Chloride	68		2.0		mg/L			12/05/19 18:40	1
Fluoride	0.16		0.10		mg/L			11/26/19 21:32	1
Sulfate	21		5.0		mg/L			11/27/19 20:32	1

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: MW-11

Lab Sample ID: 500-173774-8

Date Collected: 11/19/19 15:17

Matrix: Water

Date Received: 11/20/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.1		0.50		mg/L		12/03/19 17:12	12/05/19 14:18	10
Calcium	130		0.20		mg/L		12/03/19 17:12	12/04/19 18:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	860		10		mg/L			11/22/19 10:49	1
Chloride	200		10		mg/L			12/05/19 18:42	5
Fluoride	0.15		0.10		mg/L			11/26/19 21:37	1
Sulfate	29		5.0		mg/L			11/27/19 20:32	1

Client Sample Results

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

Job ID: 500-173774-1

Client Sample ID: Duplicate

Lab Sample ID: 500-173774-9

Date Collected: 11/19/19 00:00

Matrix: Water

Date Received: 11/20/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	8.2		1.0		mg/L		12/03/19 17:12	12/05/19 14:22	20
Calcium	470		4.0		mg/L		12/03/19 17:12	12/05/19 14:22	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3000		10		mg/L			11/22/19 10:52	1
Chloride	470		50		mg/L			12/05/19 18:42	25
Fluoride	0.45		0.10		mg/L			11/26/19 21:41	1
Sulfate	780		150		mg/L			11/27/19 20:32	30

Definitions/Glossary

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

Job ID: 500-173774-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Glossary

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

QC Association Summary

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

Job ID: 500-173774-1

Metals

Prep Batch: 518506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-1	MW-16	Total Recoverable	Water	3005A	
500-173774-2	MW-04	Total Recoverable	Water	3005A	
500-173774-3	MW-03	Total Recoverable	Water	3005A	
500-173774-4	MW-02	Total Recoverable	Water	3005A	
500-173774-5	MW-01	Total Recoverable	Water	3005A	
500-173774-6	MW-09	Total Recoverable	Water	3005A	
500-173774-7	MW-14	Total Recoverable	Water	3005A	
500-173774-8	MW-11	Total Recoverable	Water	3005A	
500-173774-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-518506/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-518506/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 518854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-2	MW-04	Total Recoverable	Water	6020A	518506
500-173774-3	MW-03	Total Recoverable	Water	6020A	518506
500-173774-4	MW-02	Total Recoverable	Water	6020A	518506
500-173774-5	MW-01	Total Recoverable	Water	6020A	518506
500-173774-6	MW-09	Total Recoverable	Water	6020A	518506
500-173774-7	MW-14	Total Recoverable	Water	6020A	518506
500-173774-8	MW-11	Total Recoverable	Water	6020A	518506
MB 500-518506/1-A	Method Blank	Total Recoverable	Water	6020A	518506
LCS 500-518506/2-A	Lab Control Sample	Total Recoverable	Water	6020A	518506

Analysis Batch: 519108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-1	MW-16	Total Recoverable	Water	6020A	518506
500-173774-2	MW-04	Total Recoverable	Water	6020A	518506
500-173774-3	MW-03	Total Recoverable	Water	6020A	518506
500-173774-4	MW-02	Total Recoverable	Water	6020A	518506
500-173774-5	MW-01	Total Recoverable	Water	6020A	518506
500-173774-6	MW-09	Total Recoverable	Water	6020A	518506
500-173774-7	MW-14	Total Recoverable	Water	6020A	518506
500-173774-8	MW-11	Total Recoverable	Water	6020A	518506
500-173774-9	Duplicate	Total Recoverable	Water	6020A	518506
MB 500-518506/1-A	Method Blank	Total Recoverable	Water	6020A	518506
LCS 500-518506/2-A	Lab Control Sample	Total Recoverable	Water	6020A	518506

General Chemistry

Analysis Batch: 468367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-1	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-173774-2	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-173774-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-173774-4	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-173774-5	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-173774-6	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-173774-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-173774-8	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-173774-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	

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QC Association Summary

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

Job ID: 500-173774-1

General Chemistry (Continued)

Analysis Batch: 468367 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-468367/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-468367/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-468367/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-173774-1 MS	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-173774-1 MSD	MW-16	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 516886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-1	MW-16	Total/NA	Water	SM 2540C	
500-173774-2	MW-04	Total/NA	Water	SM 2540C	
500-173774-3	MW-03	Total/NA	Water	SM 2540C	
500-173774-4	MW-02	Total/NA	Water	SM 2540C	
500-173774-5	MW-01	Total/NA	Water	SM 2540C	
500-173774-6	MW-09	Total/NA	Water	SM 2540C	
500-173774-7	MW-14	Total/NA	Water	SM 2540C	
500-173774-8	MW-11	Total/NA	Water	SM 2540C	
500-173774-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-516886/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-516886/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 517561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-1	MW-16	Total/NA	Water	SM 4500 F C	
500-173774-2	MW-04	Total/NA	Water	SM 4500 F C	
500-173774-3	MW-03	Total/NA	Water	SM 4500 F C	
500-173774-4	MW-02	Total/NA	Water	SM 4500 F C	
500-173774-5	MW-01	Total/NA	Water	SM 4500 F C	
500-173774-6	MW-09	Total/NA	Water	SM 4500 F C	
500-173774-7	MW-14	Total/NA	Water	SM 4500 F C	
500-173774-8	MW-11	Total/NA	Water	SM 4500 F C	
500-173774-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-517561/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-517561/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 519034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-173774-1	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-173774-2	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-173774-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-173774-4	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-173774-5	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-173774-6	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-173774-7	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-173774-8	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-173774-9	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-519034/58	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-519034/59	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-173774-3 MS	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-173774-3 MSD	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-173774-4 MS	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-173774-4 MSD	MW-02	Total/NA	Water	SM 4500 Cl- E	

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QC Sample Results

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

Job ID: 500-173774-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-518506/1-A
Matrix: Water
Analysis Batch: 518854

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518506

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.20		0.20		mg/L		12/03/19 17:12	12/04/19 17:33	1

Lab Sample ID: MB 500-518506/1-A
Matrix: Water
Analysis Batch: 519108

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 518506

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/03/19 17:12	12/05/19 13:29	1

Lab Sample ID: LCS 500-518506/2-A
Matrix: Water
Analysis Batch: 518854

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518506

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	9.07		mg/L		91	80 - 120

Lab Sample ID: LCS 500-518506/2-A
Matrix: Water
Analysis Batch: 519108

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 518506

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.988		mg/L		99	80 - 120

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

Lab Sample ID: MB 500-516886/1
Matrix: Water
Analysis Batch: 516886

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			11/22/19 09:53	1

Lab Sample ID: LCS 500-516886/2
Matrix: Water
Analysis Batch: 516886

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

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

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-519034/58
Matrix: Water
Analysis Batch: 519034

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			12/05/19 18:23	1

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QC Sample Results

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

Job ID: 500-173774-1

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

Lab Sample ID: LCS 500-519034/59

Matrix: Water

Analysis Batch: 519034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	49.2		mg/L		98	85 - 115		

Lab Sample ID: 500-173774-3 MS

Matrix: Water

Analysis Batch: 519034

Client Sample ID: MW-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	15		50.0	65.7		mg/L		101	75 - 125		

Lab Sample ID: 500-173774-3 MSD

Matrix: Water

Analysis Batch: 519034

Client Sample ID: MW-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	15		50.0	63.5		mg/L		96	75 - 125	3	20

Lab Sample ID: 500-173774-4 MS

Matrix: Water

Analysis Batch: 519034

Client Sample ID: MW-02

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	43		50.0	89.9		mg/L		94	75 - 125		

Lab Sample ID: 500-173774-4 MSD

Matrix: Water

Analysis Batch: 519034

Client Sample ID: MW-02

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	43		50.0	91.4		mg/L		96	75 - 125	2	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-517561/31

Matrix: Water

Analysis Batch: 517561

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			11/26/19 19:56	1

Lab Sample ID: LCS 500-517561/32

Matrix: Water

Analysis Batch: 517561

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			20.0	21.4		mg/L		107	80 - 120		

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QC Sample Results

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

Job ID: 500-173774-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-468367/6

Matrix: Water

Analysis Batch: 468367

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			11/27/19 20:32	1

Lab Sample ID: LCS 400-468367/7

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.4		mg/L		102	90 - 110

Lab Sample ID: MRL 400-468367/3

Matrix: Water

Analysis Batch: 468367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.89		mg/L		118	50 - 150

Lab Sample ID: 500-173774-1 MS

Matrix: Water

Analysis Batch: 468367

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	680	F2	9.90	728	4	mg/L		430	77 - 128

Lab Sample ID: 500-173774-1 MSD

Matrix: Water

Analysis Batch: 468367

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	680	F2	9.90	832	4 F2	mg/L		1485	77 - 128	13	5

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

[illegible]

ORIGIN ID: FEPA (262) 622-1143
MITCHELL DOLAN

414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 19NOV19
ACTWGT: 66.70 LB
CAD: 6994084/SSFE2021
DIMS: 24x14x14 IN

BILL THIRD PARTY

TO TEST AMERICA
TEST AMERICA
2417 BOND ST
201
UNIVERSITY PARK IL 60484

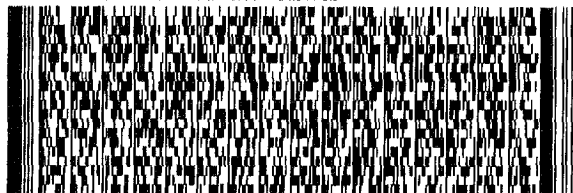
500-173774 Waybill

(708) 634-5200

REF:

INV:

DEPT:



FedEx
Express



1 of 6

TRK# 7781 5723 3896
0201

MASTER

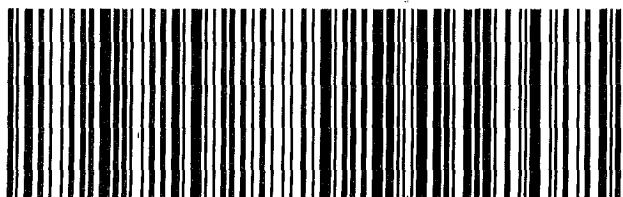
79 JOTA

WED - 20 NOV 3:00P
STANDARD OVERNIGHT

AHS

60484

IL-US ORD



ORIGIN ID: FEPA (262) 622-1143
MITCHELL DOLAN

414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 19NOV19
ACTWGT: 66.70 LB
CAD: 6994084/SSFE2021
DIMS: 24x14x14 IN

BILL THIRD PARTY

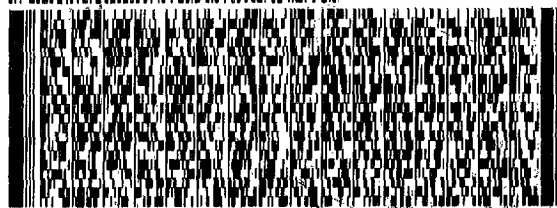
TO TEST AMERICA
TEST AMERICA
2417 BOND ST
201
UNIVERSITY PARK IL 60484

(708) 634-5200

REF:

INV:

DEPT:



FedEx
Express



2 of 6

MPS# 7781 5723 3900
0263

Mstr# 7781 5723 3896

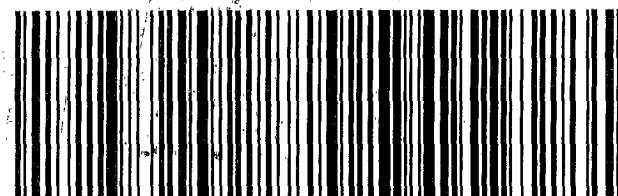
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79 JOTA

WED - 20 NOV 3:00P
STANDARD OVERNIGHT

60484

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12/20/2019 (Rev. 1)

ORIGIN ID:FEPA (262) 622-1143
MITCHELL DOLAN

414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 19NOV19
ACTWGT: 48.20 LB
CAD: 6894084/SSFE2021
DIMS: 25x14x14 IN

BILL THIRD PARTY

TO TEST AMERICA
TEST AMERICA
2417 BOND ST
201
UNIVERSITY PARK IL 60484

(708) 634-6200

INVT
PO1

REF:

DEPT:



FedEx
Express



5 of 6
MPS# 7781 5723 3933
0263
Mstr# 7781 5723 3896

79 JOTA

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STANDARD OVERNIGHT

0201

60484
IL-US ORD



ORIGIN ID:FEPA (262) 622-1143
MITCHELL DOLAN

414 PLAZA DR STE 106

WESTMONT, IL 60559
UNITED STATES US

SHIP DATE: 19NOV19
ACTWGT: 31.10 LB
CAD: 6894084/SSFE2021
DIMS: 17x13x14 IN

BILL THIRD PARTY

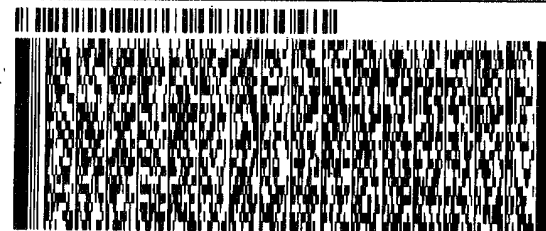
TO TEST AMERICA
TEST AMERICA
2417 BOND ST
201
UNIVERSITY PARK IL 60484

(708) 634-6200

INVT
PO1

REF:

DEPT:



FedEx
Express



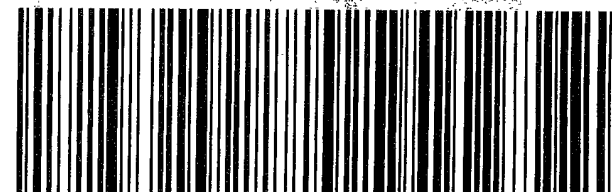
6 of 6
MPS# 7781 5723 3944
0263
Mstr# 7781 5723 3896

79 JOTA

WED - 20 NOV 3:00P
STANDARD OVERNIGHT

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60484
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Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-173774-1

Login Number: 173774

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	3.1,1.4,1.5,2.1,2.9,2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (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: 500-173774-1

Login Number: 173774

List Number: 3

Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

List Creation: 11/21/19 05:42 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C IR8
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 $<6\text{mm}$ (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: 500-173774-1

Client Sample ID: MW-16

Date Collected: 11/19/19 09:17

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	519108	12/05/19 13:36	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:31	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		25	519034	12/05/19 18:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 20:57	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-04

Date Collected: 11/19/19 10:15

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 17:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	519108	12/05/19 13:40	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:34	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	519034	12/05/19 18:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:02	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-03

Date Collected: 11/19/19 11:00

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 17:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	519108	12/05/19 13:48	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:36	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	519034	12/05/19 18:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:05	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-02

Date Collected: 11/19/19 11:35

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 17:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	519108	12/05/19 13:51	FXG	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-173774-1

Client Sample ID: MW-02

Date Collected: 11/19/19 11:35

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:39	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	519034	12/05/19 18:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:09	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-01

Date Collected: 11/19/19 12:13

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 17:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	519108	12/05/19 13:55	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:42	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	519034	12/05/19 18:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:14	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-09

Date Collected: 11/19/19 13:08

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 18:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	519108	12/05/19 13:59	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:44	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	519034	12/05/19 18:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:28	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-14

Date Collected: 11/19/19 14:15

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 18:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	519108	12/05/19 14:14	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:47	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	519034	12/05/19 18:40	EAT	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

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

Job ID: 500-173774-1

Client Sample ID: MW-14

Date Collected: 11/19/19 14:15

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:32	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		1	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: MW-11

Date Collected: 11/19/19 15:17

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	518854	12/04/19 18:08	FXG	TAL CHI
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	519108	12/05/19 14:18	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:49	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	519034	12/05/19 18:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:37	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		1	468367	11/27/19 20:32	RRC	TAL PEN

Client Sample ID: Duplicate

Date Collected: 11/19/19 00:00

Date Received: 11/20/19 09:00

Lab Sample ID: 500-173774-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			518506	12/03/19 17:12	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	519108	12/05/19 14:22	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	516886	11/22/19 10:52	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		25	519034	12/05/19 18:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	517561	11/26/19 21:41	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	468367	11/27/19 20:32	RRC	TAL PEN

Laboratory References:

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

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

Accreditation/Certification Summary

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

Job ID: 500-173774-1

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-19 *
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-20
Louisiana (DW)	State	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State	314	12-31-19
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State	LAO00307	12-30-19
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State	96026002	06-30-20
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	LE058448	06-07-20
USDA	Federal	P330-18-00148	05-17-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

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

Eurofins TestAmerica, Chicago

ANALYTICAL REPORT

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

Laboratory Job ID: 500-175685-1
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:
1/7/2020 8:17:06 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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

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

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Case Narrative

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

Job ID: 500-175685-1

Job ID: 500-175685-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-175685-1

Comments

No additional comments.

Receipt

The sample was received on 12/30/2019 8:40 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1° C.

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: 500-175685-1

Method	Method Description	Protocol	Laboratory
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI

Protocol References:

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

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: 500-175685-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-175685-1	MW-16	Water	12/27/19 09:53	12/30/19 08:40	

Client Sample Results

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

Job ID: 500-175685-1

Client Sample ID: MW-16

Date Collected: 12/27/19 09:53

Date Received: 12/30/19 08:40

Lab Sample ID: 500-175685-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2800		10		mg/L			12/30/19 09:06	1

Definitions/Glossary

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

Job ID: 500-175685-1

Glossary

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

QC Association Summary

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

Job ID: 500-175685-1

General Chemistry

Analysis Batch: 522961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175685-1	MW-16	Total/NA	Water	SM 2540C	
MB 500-522961/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-522961/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Sample Results

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

Job ID: 500-175685-1

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

Lab Sample ID: MB 500-522961/1
Matrix: Water
Analysis Batch: 522961

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			12/30/19 08:44	1

Lab Sample ID: LCS 500-522961/2
Matrix: Water
Analysis Batch: 522961

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	256		mg/L		102	80 - 120

TAL-41247500 (1209) 177/2020

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175685-1

Login Number: 175685

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	5.1
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 $<6\text{mm}$ (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: 500-175685-1

Client Sample ID: MW-16

Date Collected: 12/27/19 09:53

Date Received: 12/30/19 08:40

Lab Sample ID: 500-175685-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	522961	12/30/19 09:06	CLB	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: 500-175685-1

Laboratory: Eurofins TestAmerica, Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

- 1
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Appendix B

Alternate Source Demonstration March 11, 2019



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

ALTERNATE SOURCE DEMONSTRATION
CCR GROUNDWATER MONITORING
WAUKEGAN GENERATING STATION

March 11, 2019

Ms. Sharene Shealey
Midwest Generation, LLC
529 E. Romeo Road
Romeoville, IL 60446

VIA E-MAIL

Re: Alternate Source Demonstration – MW-16 Calcium and TDS
Waukegan Generating Station – Ash Impoundments

Dear Ms. Shealey:

The initial 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. The monitoring well network is shown on Figure 1 along with another upgradient monitoring well (MW-05) that is not part of the CCR monitoring network as discussed further below. A statistical evaluation of the initial detection monitoring data completed in accordance with the CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation Waukegan Generating Station on October 10, 2017. The evaluation included outlier testing, spatial/temporal variability testing, distributional testing, and the establishment of statistical Prediction Limits (PLs) for all Appendix III compounds to which the ninth round of groundwater detection monitoring data were compared to determine whether there may be a statistically significant increase (SSI) for a specific compound at each well location. The evaluation was performed with the assistance of the Sanitas™ statistical software package and provided in the Statistical Evaluation Summary – 2017 CCR Groundwater Monitoring Waukegan Generating Station dated January 12, 2018. An initial Alternate Source Demonstration (ASD) in accordance with

40 CFR 257.94(e)(2) was completed for potential statistically significant increases (SSIs) in boron, sulfate and pH at several monitoring locations. The results of the initial ASD were summarized in a report dated April 12, 2018 which determined that the noted SSIs were not related to the regulated units but rather to other potential source(s). It was recommended at the time to continue with routine semi-annual detection monitoring.

The second semi-annual detection monitoring event for 2018 identified potential SSIs for calcium and total dissolved solids (TDS) at monitoring well location MW-16. Since calcium and TDS were not part of the initial ASD dated April 12, 2018, a recommendation was made to complete another ASD for these parameters to determine the proper next course of action relative to CCR monitoring requirements.

This report summarizes the results of the ASD completed for the Waukegan Station West and East Ash Ponds in accordance with 40 CFR 257.94(e)(2) for calcium and TDS at well location MW-16. The report is structured to provide a documentation of field investigation activities, a summary of Leaching Environmental Assessment Framework (LEAF) Test data observations, an alternate source evaluation of the SSI parameters, conclusions and recommendations. Each is discussed separately below. The statistical evaluation data tables from the December 2018 (second semi-annual) groundwater monitoring event are provided in Attachment 1 for reference. Based on the data evaluation, the noted SSIs for calcium and TDS at monitoring well MW-16 are not the result of leakage of leachate from the regulated units (West and East Ash Ponds) but rather from other potential source(s).

DOCUMENTATION OF FIELD ACTIVITIES

As part of the initial ASD dated April 12, 2018, pond water and ash samples were collected. The pond water was analyzed for CCR Appendix III parameters. The ash samples from the East and West Ponds were analyzed using the LEAF Test using Method 1313. Under this method, each ash sediment sample underwent leaching over a range of eight pH values plus under “Natural pH” conditions. The Natural pH condition is the actual pH of the ash itself measured in the laboratory prior to any pH modifications performed under the LEAF Test. The collected leachate from each pH value was analyzed for CCR Appendix III detection monitoring parameters. The analytical data packages are provided in Attachment 2. The January 2018 data for the ASD are representative of current conditions and valid for use in this evaluation, because the plant operations and the source of coal being burned have not changed since the ASD sampling occurred. The specific field sampling procedures are detailed in the April 12, 2018 report.

LEAF TEST DATA OBSERVATIONS

The results of the pond water and the ash LEAF Test analyses are provided in Tables 1 and 2, respectively. A review of Tables 1 and 2 indicates that the Natural pH of the ash is 9.7 standard units (su) which is higher than the pH of the pond water sample (8.8 su). Based on this observation, the focus of this analysis will rely on the results of the LEAF Test data and in particular the data from the Natural pH samples of the ash.

Focusing on the LEAF Test data for calcium and TDS, Figures 2 and 3 illustrate in graphical form these parameters as a function of pH. On those figures are also plotted the results of the Natural pH samples (the East Pond Natural data plots coincide with the West Pond Natural data on the graphs so only West Pond Natural point is apparent) and the most recent sampling data for well MW-16 from the December 2018 sampling event (the semi-annual detection monitoring event identifying potential SSIs for these parameters in MW-16). In general, the following observations are made:

- Calcium – The calcium leachate concentration is a clear function of pH with decreasing concentrations with increasing pH. The Natural pH sample data for both the East and West Ponds plots close to where it would be expected on the LEAF Test curve. The calcium concentration in well MW-16 also plots below the LEAF Test curve but at a higher calcium concentration than the Natural pH test analyses for both ash samples.
- Total Dissolved Solids (TDS) – The TDS LEAF Test curve shows leachate TDS concentrations decreasing to a pH of 9 and then increasing as pH increases. The TDS values of the Natural pH samples both plot slightly below the LEAF Test curve. The TDS concentration in well MW-16 also plots below the LEAF test curve but at a concentration higher than the Natural pH test analyses of both ash samples.

ALTERNATE SOURCE EVALUATION OF THE SSI PARAMETERS

Monitoring well MW-16 is completed within the southern berm of the ash ponds. A mixture of fill and beneficially reused coal combustion by-product (CCB) were likely used for the construction of the berms for the ash ponds as demonstrated by the CCB documented within the well bore column of this monitoring well. Monitoring well MW-05 is immediately upgradient of the West Ash Pond and of well MW-16 and is completed within the western berm of the ash ponds. MW-05 is not part of the CCR monitoring network. However, knowing the chemistry of the groundwater upgradient, immediately prior to passing beneath the ash ponds and well MW-16, is important in evaluating potential releases of leachate from the regulated units.

Figures 4 and 5 focus in on the LEAF Test pH range of 5 to 10 su for calcium and TDS, respectively. Also included on these figures is the calcium and TDS data from monitoring well MW-16 from the time of initial CCR sampling in November 2015 through the most recent sampling in November/December 2018. In addition, TDS data (Figure 5) for monitoring well MW-05 is also included for this time period (this well is not analyzed for calcium).

The pH range of the groundwater at well MW-16 over the subject time period (i.e., 11/2015 through 12/2018) was from 5.76 to 7.57 with an average of 6.88 and a median of 7.00. For MW-05 the pH range was from 6.18 to 7.78 with an average of 6.96 and a median of 6.93. The data on Figures 4 and 5 indicates that there is no correlation between calcium and TDS

concentrations, respectively, with pH at well MW-16. Figure 5 also shows no correlation of TDS with pH at well MW-05.

The calcium concentration range over the noted CCR monitoring period at well MW-16 was 130 mg/l to 380 mg/l with an average concentration of approximately 246 mg/l and a median concentration of 215 mg/l. The two Natural pH leachate samples have calcium concentrations of 42 mg/l and 43 mg/l and the Pond water sample had calcium at 70 mg/l. The TDS concentration range over the noted CCR monitoring period at well MW-16 was 760 mg/l to 1,900 mg/l with an average of approximately 1,323 mg/l and a median of 1,250 mg/l. The two Natural pH leachate samples had TDS at 240 mg/l and 270 mg/l and the Pond water sample had TDS at 430 mg/l.

As discussed above, the Natural pH of the ash sample leachate was 9.7 and the pond water sample was at 8.8. The two semi-annual 2018 sampling events at well MW-16 indicated pH concentrations at 6.53 to 6.78. Both of these pH measurements are lower than the last four sampling events in 2017 which ranged from 7.04 to 7.94. If leakage from the ash ponds was associated with the elevated calcium and TDS concentrations, the pH at well MW-16 would be shifted towards the alkaline side of the scale (i.e., more than 7.0) as opposed to the noted acidic side of the scale (i.e., less than 7.0). In addition, an upward shift in concentrations as noted in the last round of sampling would also not be expected because the calcium and TDS concentrations in the Natural pH ash leachate samples and the Pond water sample are less than the concentrations of these parameters routinely detected at well MW-16.

Additionally, if there was a temporary downward shift in pH within the ash ponds (water and leachate) then there should be a very substantial increase in both calcium and TDS within well MW-16 based on the data from the LEAF Test curves for both of these parameters (i.e., concentrations of calcium and TDS increase very quickly and substantially below a pH of 8 in ash leachate). There was no such substantial increase in either calcium or TDS at well location MW-16. This is further supported by a trend analysis using both Linear Regression and Senn's Slope Estimator methods performed using SanitasTM statistical software for calcium, TDS and pH at MW-16 over time which shows no statistically significant trends (see Attachment 3).

Figure 6 provides a plot of calcium versus TDS at monitoring well MW-16. This graph shows a clear and strong relationship between these two parameters (i.e., when TDS increases so does calcium). Figure 7 shows a time versus concentration plot for TDS at monitoring wells MW-16 and MW-05, which shows that the two curves indicate a good parallel relationship with increases in TDS at well MW-16 corresponding with increases in TDS at upgradient well MW-05. Accordingly, fluctuations in TDS, and by correlation fluctuations in calcium, at well MW-16 are related to other sources affecting the water quality at upgradient well MW-05 as opposed to a potential release of leachate from the ash ponds.

CONCLUSIONS/RECOMMENDATIONS

Based on the data evaluation and discussions provided above, it is concluded that the noted SSIs for calcium and TDS at monitoring well MW-16 are not the result of leakage of leachate from the regulated units (West and East Ash Ponds) but rather from other potential source(s). This is based on the following:

- The pH levels are not increasing at well MW-16, indicating that there is no leakage of leachate from the ash ponds. Additionally, an increase in the pH levels would result in decreased concentrations of calcium and TDS rather than the documented increased concentrations.
- If there was some unexpected and unlikely downward shift in leachate/pond water pH, the increases in calcium and TDS would be much greater than observed at MW-16 based on the LEAF Test pH relationship of these constituents in the pond ash samples.
- Linear Regression and Senn's Slope Estimator trend analyses performed for calcium, TDS and pH for data from well MW-16 do not indicate any statistically significant trends in these parameters at this well.
- There is a strong positive correlation between calcium and TDS concentrations at well MW-16. The fluctuating TDS concentrations at MW-16 are correlated to fluctuations in TDS at upgradient well MW-05 which is believed to have water quality impacted by other potential source(s) and not associated with a potential release of leachate from the ash pond regulated units.

Based on this conclusion, it is recommended to continue with detection monitoring at this time.

Sincerely,
KPRG and Associates, Inc.



Richard R. Gnat, P.G.
Principal



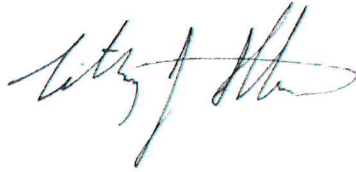
Timothy Stohner, P.E.
Project Manager/Sr. Engineer

cc: David Bacher, NRG
Fred Veenbaas, Midwest Generation

CERTIFICATION

In accordance with Section 257.94(e)(2) of the CCR Rule, I hereby certify based on a review of the information contained within this CCR Alternate Source Demonstration dated March 11, 2019, that the information contained in this report is accurate to the best of my knowledge.

Certified by:

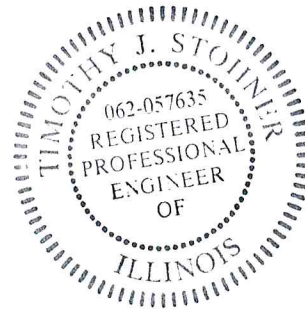


Date: March 11, 2019

Timothy Stohner, P.E.

Illinois Professional Engineer Registration No.: 062.057635

KPRG and Associates, Inc.



FIGURES



ENVIRONMENTAL CONSULTATION & REMEDIATION

K P R G

KPRG and Associates, inc.

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

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

CCR MONITORING WELL SITE MAP

WAUKEGAN STATION
WAUKEGAN, ILLINOIS

Scale: 1" = 550'

Date: March 26, 2018

KPRG Project No. 23517

FIGURE 1

Figure 2. Calcium Concentration vs. pH Value - Waukegan Station

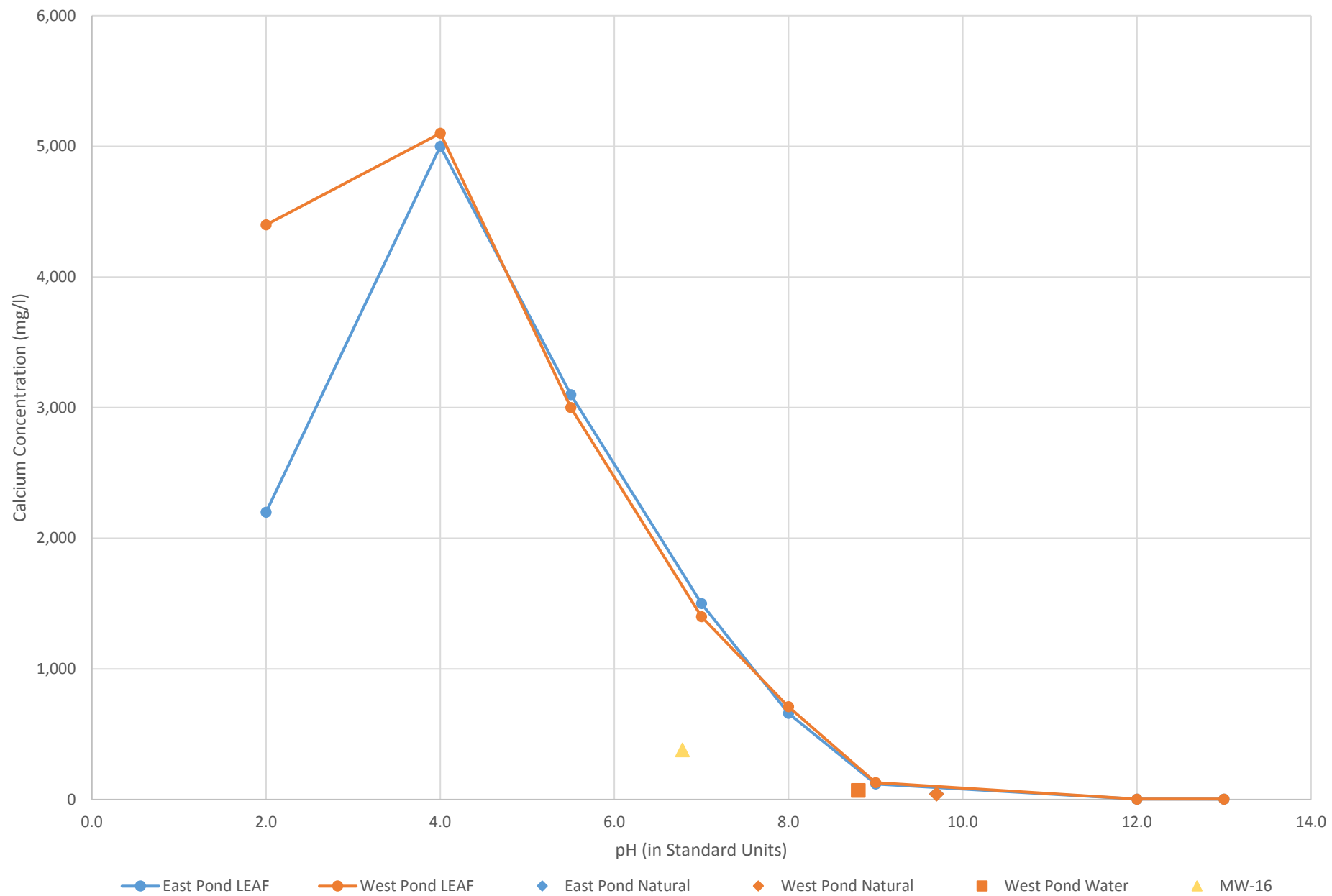


Figure 3. TDS Concentration vs. pH Value - Waukegan Station

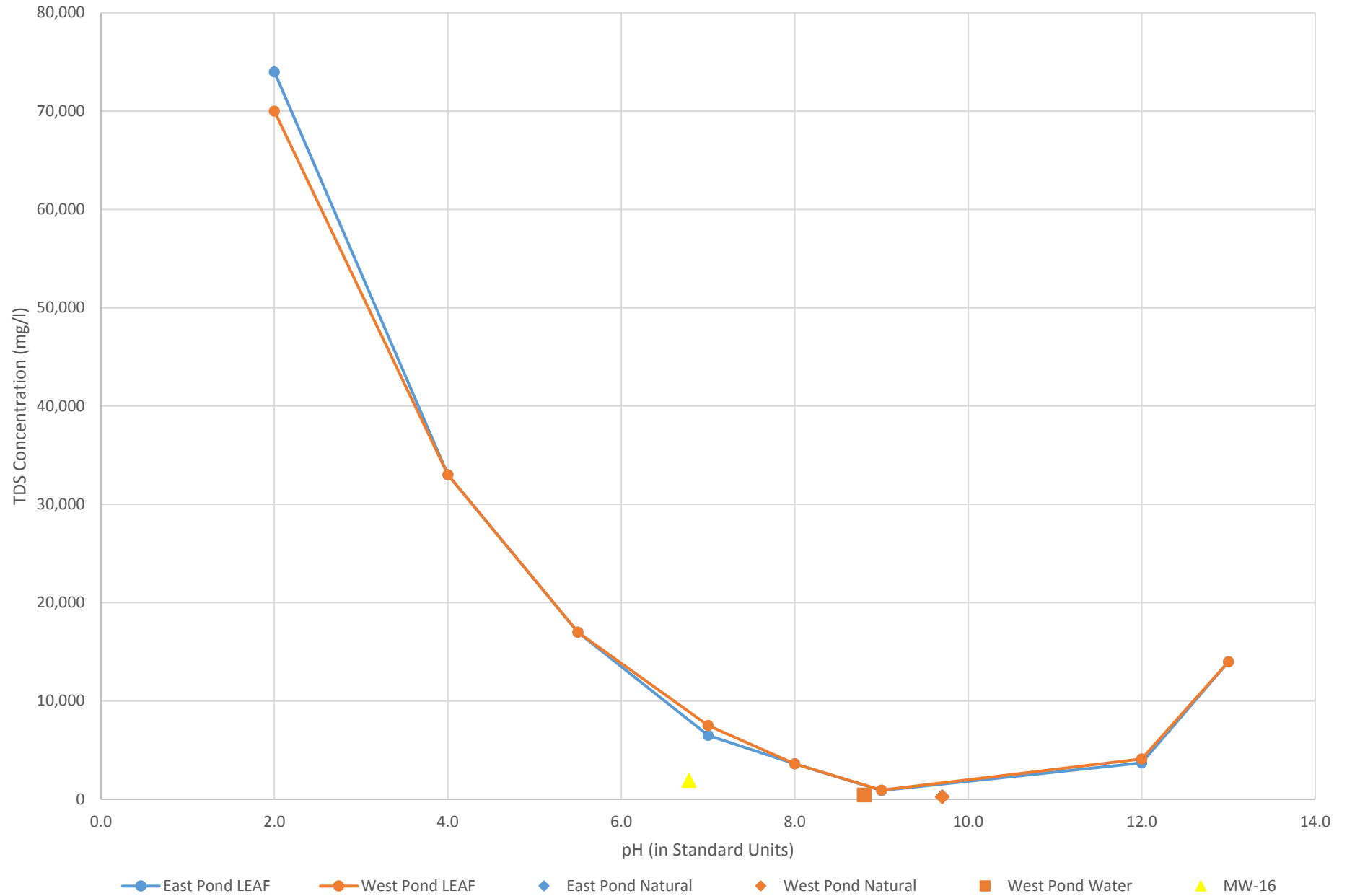


Figure 4. Ca vs. pH

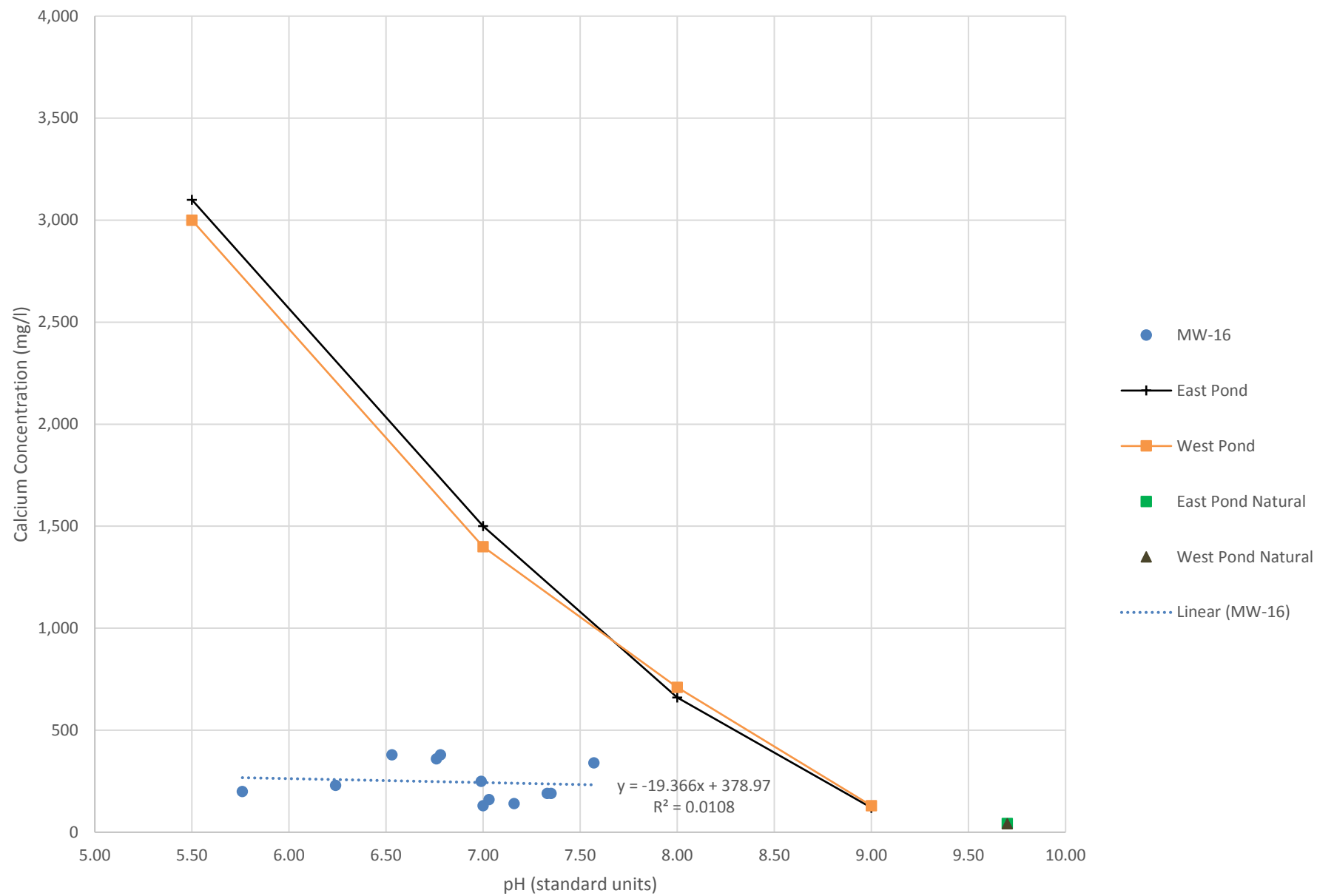


Figure 5. TDS vs. pH

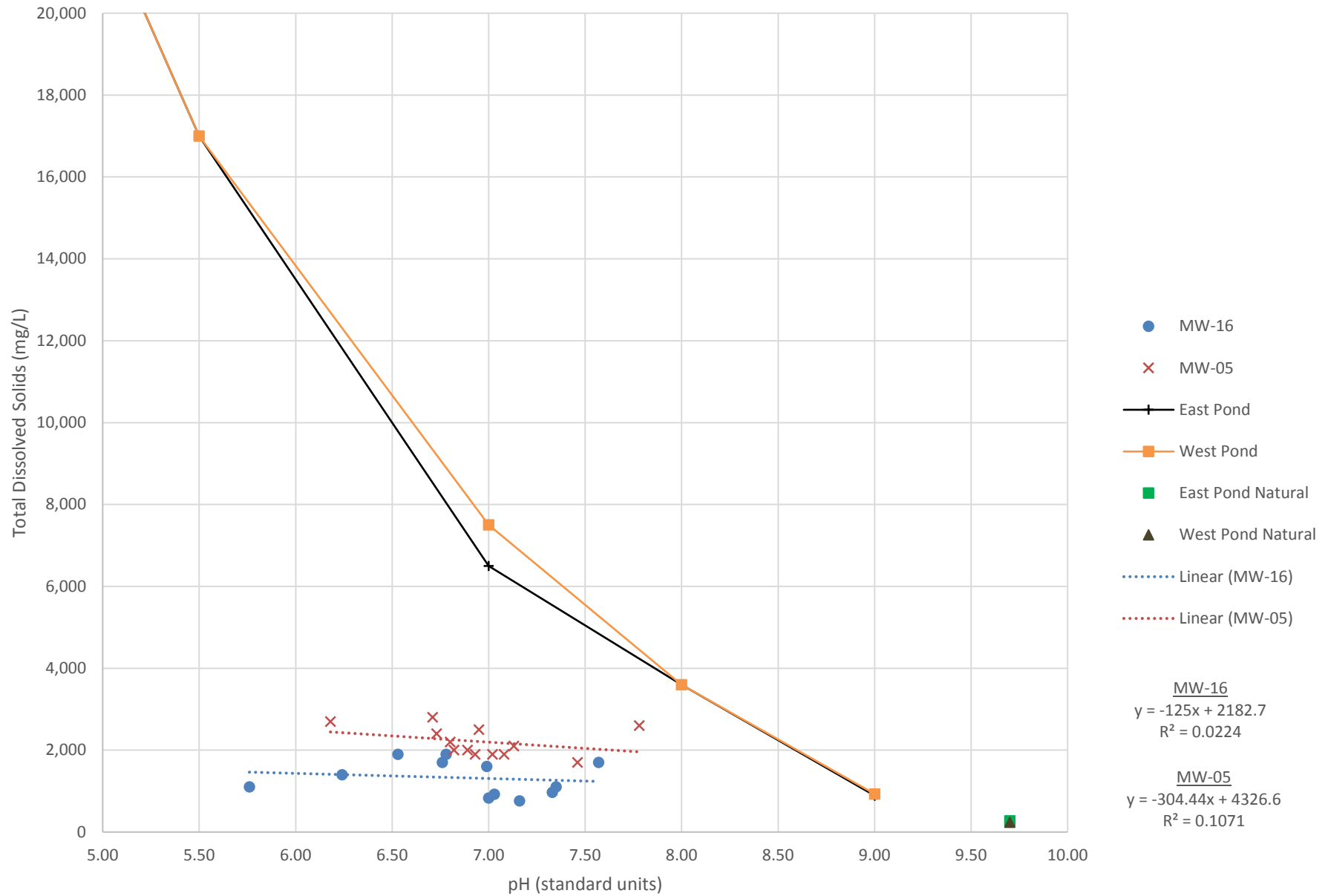


Figure 6. MW-16: Calcium vs. Total Dissolved Solids

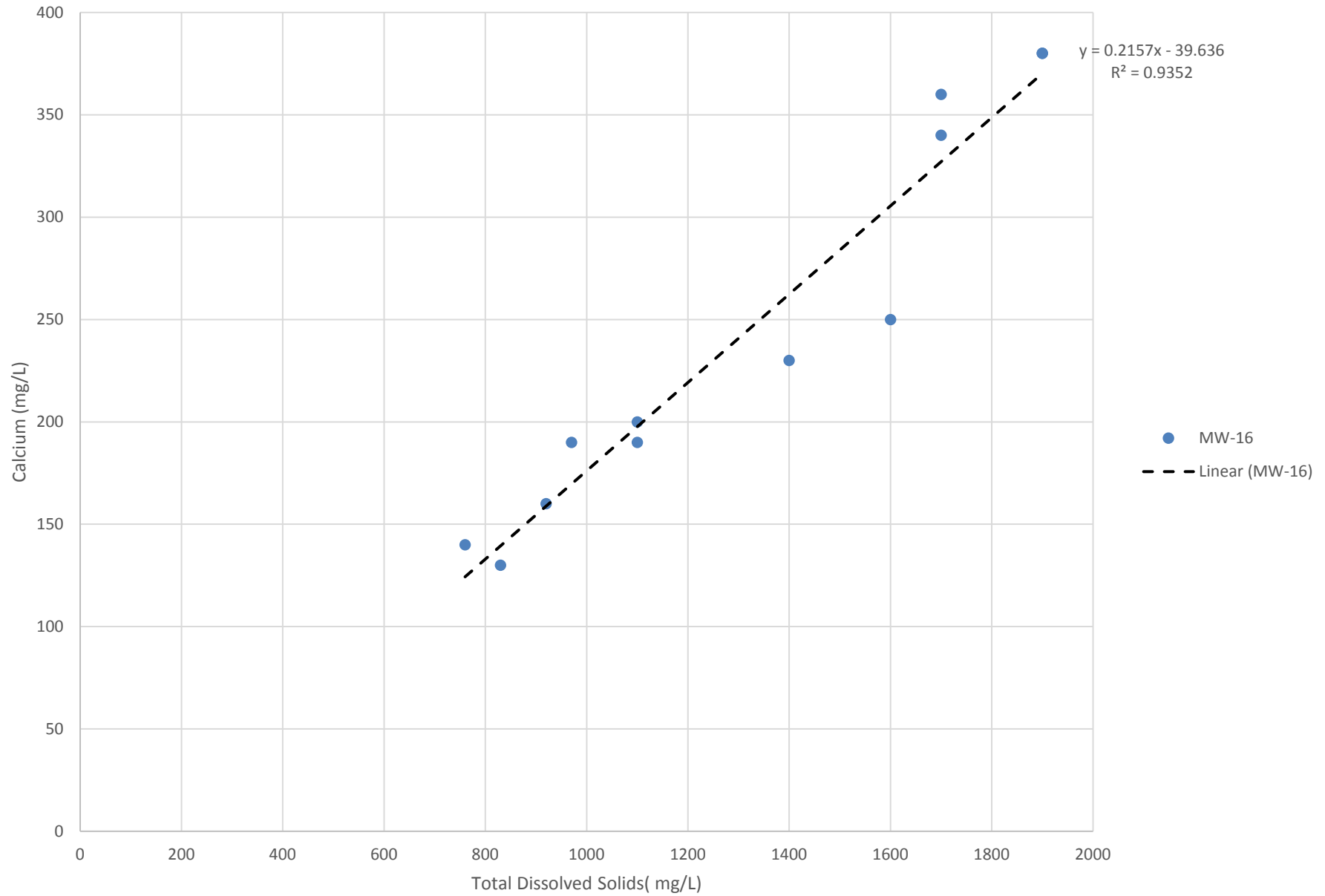
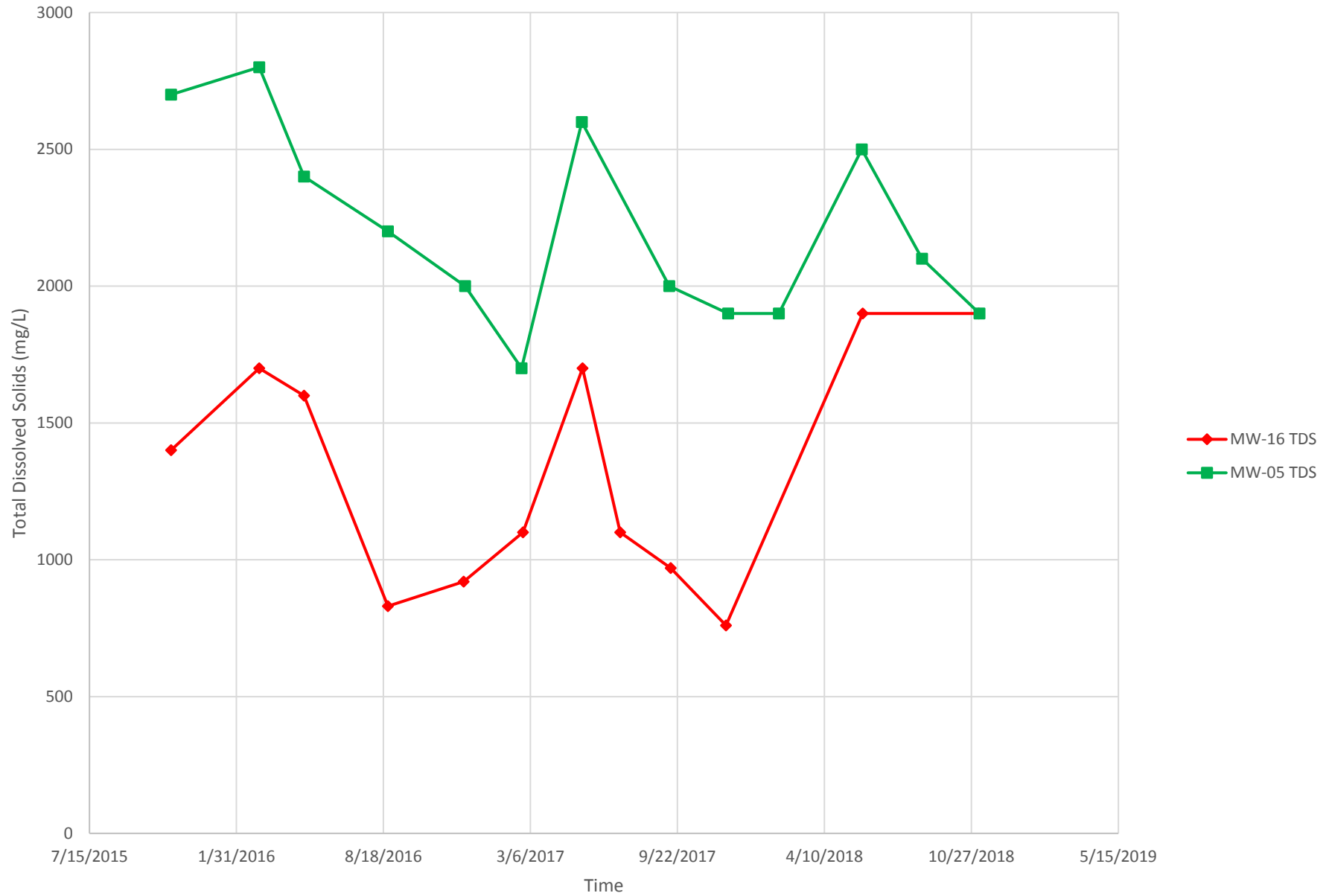


Figure 7. Total Dissolved Solids vs. Time, MW-05 and MW-16



TABLES

Table 1. Pond Water Results - Midwest Generation Waukegan Station, Waukegan, Illinois

PARAMETER	UNITS	West Pond
Boron	mg/L	0.87
Calcium	mg/L	70
Chloride	mg/L	52
Fluoride	mg/L	0.21
pH	SU	8.8
Sulfate	mg/L	90
TDS	mg/L	430

Notes: Units are as noted.
TDS - Total Dissolved Solids

Table 2. LEAF Test Results from Ash Samples- Midwest Generation Waukegan Station, Waukegan, Illinois

EAST POND ASH PARAMETER	UNITS	LEAF TEST TARGETED pH VALUES								
		13.0	12.0	9.0	8.0	7.0	5.5	4.0	2.0	Natural*
Boron	mg/L	3.5	3.4	2.0	3.0	4.3	6.4	11.0	5.1	2.0
Calcium	mg/L	3.7	3.5	120	660	1,500	3,100	5,000	2,200	43.0
Chloride	mg/L	<50	<25	2.8	<2.5	<10	<25	<25	<100	2.9
Fluoride	mg/L	<5.0	<2.5	0.51	<0.50	<1.0	<2.5	7.5	<10	0.32
ORP	millivolts	-50	-7.0	230	260	290	310	400	660	170
pH	SU	12.8	12.5	8.9	7.7	7.0	5.8	3.8	2.1	9.7
Spec Cond	umhos/cm	47,000	13,000	1,300	4,700	8,500	18,000	30,000	64,000	390
Sulfate	mg/L	120	110	110	130	140	170	330	180	130
TDS	mg/L	14,000	3,700	890	3,600	6,500	17,000	33,000	74,000	270

WEST POND ASH PARAMETER	UNITS	LEAF TEST TARGETED pH VALUES								
		13.0	12.0	9.0	8.0	7.0	5.5	4.0	2.0	Natural*
Boron	mg/L	3.7	3.7	1.8	2.9	4.3	6.2	11.0	11.0	1.9
Calcium	mg/L	3.8	3.8	130	710	1,400	3,000	5,100	4,400	42.0
Chloride	mg/L	<50	<25	2.2	<5.0	<10	<25	<25	<100	17
Fluoride	mg/L	<5.0	<2.5	0.2	<0.50	<1.0	<2.5	7.7	<10	0.53
ORP	millivolts	-32	-10	250	280	300	320	410	490	170
pH	SU	12.8	12.4	8.7	7.5	7.0	5.9	3.8	2.5	9.7
Spec Cond	umhos/cm	46,000	13,000	1,300	4,800	8,600	18,000	30,000	59,000	400
Sulfate	mg/L	120	120	100	130	130	160	360	180	38
TDS	mg/L	14,000	4,100	930	3,600	7,500	17,000	33,000	70,000	240

Notes: Units are as noted.

ORP - Oxidation Reduction Potential

Spec Cond - Specific Conductivity

TDS - Total Dissolved Solids

Natural* - pH of ash as measured in the laboratory prior to any pH test modifications.

ATTACHMENT 1

Statistical Data Evaluation Tables – December, 2018

Table 4. Detection Monitoring - Appendix III Groundwater Analytical Results through 2018 - 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
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
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
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

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

Table 4. Detection Monitoring - Appendix III Groundwater Analytical Results through 2018 - 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	0.8	8.75	190	420
	5/15/2017	3.6	85	48	0.6	8.33	320	640
	7/5/2017	4.2	100	52	0.4	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	0.4	8.19	340	780
	11/27/2017	3.4	69	57	0.6	7.34	200	570
	5/29/2018	4.5	160	43	0.4	6.85	420	990
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	0.50	8.99	150	500
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
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	NC	NC	NC	8.45-5.23	1206	NC
	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

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 relative to interwell Prediction Limit.**BOLD** - Potential statistically significant increase relative to intrawell Prediction Limit.**BOLD** - Above both interwell and intrawell Prediction Limits.

NC- Not Calculated.

ATTACHMENT 2

Pond Water and LEAF Test Analytical Data Packages

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-139827-1

Client Project/Site: Waukegan CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 2B

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

1/30/2018 1:18:47 PM

Eric Lang, Manager of Project Management

(708)534-5200

eric.lang@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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



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Case Narrative

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

TestAmerica Job ID: 500-139827-1

Job ID: 500-139827-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-139827-1

Comments

No additional comments.

Receipt

The sample was received on 1/18/2018 9:55 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

Metals

Method(s) 6020A: The continuing calibration verification (CCV) at line 37 in AD batch 417738 was outside the control limits for Boron. This CCV bracketed the method blank (MB) and laboratory control sample (LCS) only. Both the MB and LCS were within the method control limits. The associated samples were bracketed by CCV that were within control limits. 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

TestAmerica Job ID: 500-139827-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL CHI
9040C	pH	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

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

Sample Summary

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

TestAmerica Job ID: 500-139827-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-139827-1	West Pond	Water	01/17/18 10:31	01/18/18 10:41

Client Sample Results

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

TestAmerica Job ID: 500-139827-1

Client Sample ID: West Pond

Lab Sample ID: 500-139827-1

Date Collected: 01/17/18 10:31

Matrix: Water

Date Received: 01/18/18 10:41

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.87		0.050		mg/L		01/18/18 15:10	01/23/18 14:39	1
Calcium	70		0.20		mg/L		01/18/18 15:10	01/23/18 14:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8	HF	0.2		SU			01/18/18 16:28	1
Total Dissolved Solids	430		10		mg/L			01/19/18 04:41	1
Chloride	52		2.0		mg/L			01/19/18 00:03	1
Fluoride	0.21		0.10		mg/L			01/25/18 13:00	1
Sulfate	90		25		mg/L			01/19/18 07:57	5

Definitions/Glossary

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

TestAmerica Job ID: 500-139827-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

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

QC Association Summary

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

TestAmerica Job ID: 500-139827-1

Metals

Prep Batch: 417296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total Recoverable	Water	3005A	
MB 500-417296/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-417296/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 417738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total Recoverable	Water	6020A	417296
MB 500-417296/1-A	Method Blank	Total Recoverable	Water	6020A	417296
LCS 500-417296/2-A	Lab Control Sample	Total Recoverable	Water	6020A	417296

General Chemistry

Analysis Batch: 417329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total/NA	Water	SM 2540C	
MB 500-417329/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-417329/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-139827-1 DU	West Pond	Total/NA	Water	SM 2540C	

Analysis Batch: 417361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total/NA	Water	SM 4500 SO4 E	
MB 500-417361/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-417361/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 417368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total/NA	Water	9040C	
500-139827-1 DU	West Pond	Total/NA	Water	9040C	

Analysis Batch: 417451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total/NA	Water	SM 4500 Cl- E	
MB 500-417451/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-417451/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 418006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139827-1	West Pond	Total/NA	Water	SM 4500 F C	
MB 500-418006/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-418006/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-139827-1 MS	West Pond	Total/NA	Water	SM 4500 F C	
500-139827-1 MSD	West Pond	Total/NA	Water	SM 4500 F C	

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-139827-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-417296/1-A
Matrix: Water
Analysis Batch: 417738

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 417296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050	^	0.050		mg/L		01/18/18 15:10	01/23/18 12:40	1
Calcium	<0.20		0.20		mg/L		01/18/18 15:10	01/23/18 12:40	1

Lab Sample ID: LCS 500-417296/2-A
Matrix: Water
Analysis Batch: 417738

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 417296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.927	^	mg/L		93	80 - 120
Calcium	10.0	10.4		mg/L		104	80 - 120

Method: 9040C - pH

Lab Sample ID: 500-139827-1 DU
Matrix: Water
Analysis Batch: 417368

Client Sample ID: West Pond
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.8	HF	8.8		SU		0.2	

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

Lab Sample ID: MB 500-417329/1
Matrix: Water
Analysis Batch: 417329

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			01/19/18 04:03	1

Lab Sample ID: LCS 500-417329/2
Matrix: Water
Analysis Batch: 417329

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	288		mg/L		115	80 - 120

Lab Sample ID: 500-139827-1 DU
Matrix: Water
Analysis Batch: 417329

Client Sample ID: West Pond
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	430		458		mg/L		5	5

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-139827-1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-417451/4

Matrix: Water

Analysis Batch: 417451

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			01/18/18 23:43	1

Lab Sample ID: LCS 500-417451/5

Matrix: Water

Analysis Batch: 417451

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.7		mg/L		99	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-418006/31

Matrix: Water

Analysis Batch: 418006

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			01/25/18 12:53	1

Lab Sample ID: LCS 500-418006/32

Matrix: Water

Analysis Batch: 418006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.1		mg/L		101	80 - 120

Lab Sample ID: 500-139827-1 MS

Matrix: Water

Analysis Batch: 418006

Client Sample ID: West Pond

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.21		5.00	5.00		mg/L		96	75 - 125

Lab Sample ID: 500-139827-1 MSD

Matrix: Water

Analysis Batch: 418006

Client Sample ID: West Pond

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.21		5.00	5.03		mg/L		96	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-417361/3

Matrix: Water

Analysis Batch: 417361

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			01/19/18 07:43	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-139827-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-417361/4

Matrix: Water

Analysis Batch: 417361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.5		mg/L	—	97	80 - 120

Report To _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# _____

Lab Job #: 500-139827

Page _____ of _____

Temperature °C of Cooler: 15.4



500-139827 COC

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days ___ Other
Requested Due Date

☐	Return to Client	☒	Disposal by Lab	☐	Archive for	Months	(A fee may be assessed if samples are retained longer than 1 month)
--------------------------	------------------	-------------------------------------	-----------------	--------------------------	-------------	--------	---

Lab CourierShipped FX Priority

Hand Delivered

Matrix Key	
WW - Wastewater	SE - Sediment
W - Water	SO - Soil
S - Soil	L - Leachate
SL - Sludge	WI - Wipe
MS - Miscellaneous	DW - Drinking Water
OL - Oil	O - Other
A - Air	

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-139827-1

Login Number: 139827

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

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	3.4
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-139827-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

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

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-74229-1

Client Project/Site: Midwest Generation

For:

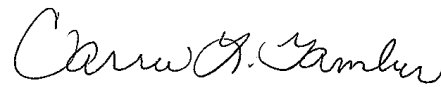
KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 2B

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

2/27/2018 10:38:12 AM

Carrie Gamber, Senior Project Manager

(412)963-2428

carrie.gamber@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Job ID: 180-74229-1

Laboratory: TestAmerica Pittsburgh

Narrative

CASE NARRATIVE

Client: KPRG and Associates, Inc.

Project: Midwest Generation

Report Number: 180-74229-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 1/18/2018 12:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

IC

Several samples were diluted due to the nature of the sample matrix. Dilutions were based on the conductivity readings during pre-screen. Elevated reporting limits (RLs) are provided.

Several samples were diluted due to the level of analytes detected in the samples. Elevated reporting limits (RLs) are provided.

METALS

Several samples were diluted due to the nature of the sample matrix and/or to bring the concentration of boron and calcium within the linear range. Elevated reporting limits (RLs) are provided.

GENERAL CHEMISTRY

Due to the sample matrix and amount of sample generated, the initial volumes used for several samples deviated from the standard procedure for TDS. The reporting limits (RLs) have been adjusted proportionately.

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	200005	06-30-18

The following analytes are included in this report, but are not accredited/certified under this accreditation/certification:

Analysis Method	Prep Method	Matrix	Analyte
SM 2510B		Solid	Specific Conductance
SM 2540C		Solid	Total Dissolved Solids

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
SM 2580B		Solid	Oxidation Reduction Potential

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-74229-1	EAST POND - PRETEST	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-2	EAST POND - PH 13.0	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-3	EAST POND - PH 12.0	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-5	EAST POND - PH 9.0	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-6	EAST POND - PH 8.0	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-7	EAST POND - PH 7.0	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-8	EAST POND - PH 5.5	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-9	EAST POND - PH 4.0	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-10	EAST POND - PH 2.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-11	EAST POND - NATURAL	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-12	WEST POND - PRETEST	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-13	WEST POND - PH 13.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-14	WEST POND - PH 12.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-16	WEST POND - PH 9.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-17	WEST POND - PH 8.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-18	WEST POND - PH 7.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-19	WEST POND - PH 5.5	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-20	WEST POND - PH 4.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-21	WEST POND - PH 2.0	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-22	WEST POND - NATURAL	Solid	01/17/18 10:37	01/18/18 12:20
180-74229-23	EAST POND - AIR DRIED	Solid	01/17/18 10:18	01/18/18 12:20
180-74229-24	WEST POND - AIR DRIED	Solid	01/17/18 10:37	01/18/18 12:20

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	TAL PIT
EPA 6020A	Metals (ICP/MS)	SW846	TAL PIT
2540G	SM 2540G	SM22	TAL PIT
EPA 9040C	pH	SW846	TAL PIT
SM 2510B	Conductivity, Specific Conductance	SM	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM 2580B	Reduction-Oxidation (REDOX) Potential	SM	TAL PIT

Protocol References:

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

SM22 = SM22

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

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PRETEST

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			234978	01/24/18 09:55	CLL	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			40.5 g	950 mL	237107	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:07	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			40.5 g	950 mL	237107	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:16	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EAST POND - PH 13.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		50			236553	02/09/18 19:50	CMR	TAL PIT
	Instrument ID: CHICS2000									
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236440	02/08/18 11:28	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236729	02/10/18 00:39	WTR	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236440	02/08/18 11:28	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236828	02/13/18 03:43	WTR	TAL PIT
	Instrument ID: M									
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			236465	02/07/18 12:13	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			236475	02/07/18 12:01	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	3 mL	100 mL	237078	02/15/18 14:59	KXW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			236472	02/07/18 11:54	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EAST POND - PH 12.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 12.0

Lab Sample ID: 180-74229-3

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	EPA 9056A		25			237859	02/26/18 13:35	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	237311	02/19/18 13:03	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237590	02/21/18 01:20	WTR	TAL PIT
		Instrument ID: A								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	237311	02/19/18 13:03	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237713	02/22/18 04:30	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237737	02/16/18 13:32	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237752	02/16/18 13:16	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	237329	02/19/18 15:41	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237751	02/16/18 13:18	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - PH 9.0

Lab Sample ID: 180-74229-5

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			236732	02/13/18 17:11	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			236891	02/14/18 16:40	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237198	02/15/18 23:15	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:19	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 15:01	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 9.0

Lab Sample ID: 180-74229-5

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	SM 2540C		1	100 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237422	02/12/18 15:02	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - PH 8.0

Lab Sample ID: 180-74229-6

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		2.5			236732	02/13/18 17:43	MJH	TAL PIT
		Instrument ID: CHIC2100A								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			236891	02/14/18 16:56	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237198	02/15/18 23:06	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:10	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 14:51	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237422	02/12/18 14:49	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - PH 7.0

Lab Sample ID: 180-74229-7

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		10			236997	02/15/18 14:02	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 7.0

Lab Sample ID: 180-74229-7

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	EPA 9056A		10			237100	02/16/18 07:20	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			237323	02/16/18 20:43	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:13	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 14:56	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237422	02/12/18 14:55	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - PH 5.5

Lab Sample ID: 180-74229-8

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			236997	02/15/18 14:18	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			237100	02/16/18 07:36	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			237323	02/16/18 20:47	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:23	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 15:07	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 5.5

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	SM 2580B		1			237422	02/12/18 15:08	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - PH 4.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			236553	02/09/18 18:15	CMR	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236440	02/08/18 11:28	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			236828	02/13/18 04:00	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			236465	02/07/18 11:39	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			236475	02/07/18 11:21	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	4 mL	100 mL	236825	02/13/18 15:26	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			236472	02/07/18 11:16	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - PH 2.0

Date Collected: 01/17/18 10:37

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	EPA 9056A		100			237859	02/26/18 11:59	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	237311	02/19/18 13:03	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			237713	02/22/18 04:48	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237737	02/16/18 13:38	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 2.0

Lab Sample ID: 180-74229-10

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	SM 2510B		1			237752	02/16/18 13:24	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	2 mL	100 mL	237329	02/19/18 15:41	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237751	02/16/18 13:26	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - NATURAL

Lab Sample ID: 180-74229-11

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			236373	02/08/18 11:47	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236437	02/08/18 11:22	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236729	02/09/18 23:12	WTR	TAL PIT
		Instrument ID: A								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236437	02/08/18 11:22	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236828	02/13/18 01:15	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			236465	02/07/18 14:19	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			236475	02/07/18 14:45	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	236825	02/13/18 15:26	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.5 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			236472	02/07/18 14:47	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PRETEST

Lab Sample ID: 180-74229-12

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			234978	01/24/18 09:55	CLL	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PRETEST

Lab Sample ID: 180-74229-12

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			234978	01/24/18 09:55	CLL	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	950 mL	237107	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:32	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	950 mL	237107	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:35	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 13.0

Lab Sample ID: 180-74229-13

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		50			236553	02/09/18 20:22	CMR	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236440	02/08/18 11:28	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236729	02/10/18 00:50	WTR	TAL PIT
		Instrument ID: A								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236440	02/08/18 11:28	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236828	02/13/18 04:05	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			236465	02/07/18 11:27	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			236475	02/07/18 11:07	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	3 mL	100 mL	236825	02/13/18 15:26	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			236472	02/07/18 11:04	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 12.0

Lab Sample ID: 180-74229-14

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 12.0

Lab Sample ID: 180-74229-14

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	EPA 9056A		25			237859	02/26/18 14:06	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	237311	02/19/18 13:03	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237590	02/21/18 01:25	WTR	TAL PIT
		Instrument ID: A								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	237311	02/19/18 13:03	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237713	02/22/18 04:53	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237737	02/16/18 13:43	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237752	02/16/18 13:31	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	237329	02/19/18 15:41	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237751	02/16/18 13:34	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 9.0

Lab Sample ID: 180-74229-16

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			236997	02/15/18 14:33	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		10			237100	02/16/18 07:52	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237198	02/15/18 23:51	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:44	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 15:38	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 9.0

Lab Sample ID: 180-74229-16

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	SM 2540C		1	100 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237422	02/12/18 15:40	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 8.0

Lab Sample ID: 180-74229-17

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			236997	02/15/18 15:05	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			237100	02/16/18 08:08	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			237198	02/15/18 23:24	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:26	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 15:12	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237422	02/12/18 15:14	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 7.0

Lab Sample ID: 180-74229-18

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		10			236997	02/15/18 15:21	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 7.0

Lab Sample ID: 180-74229-18

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	EPA 9056A		10			237100	02/16/18 08:24	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			237323	02/16/18 20:52	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:29	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 15:17	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237422	02/12/18 15:21	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 5.5

Lab Sample ID: 180-74229-19

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			236997	02/15/18 15:37	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			237100	02/16/18 08:40	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236807	02/13/18 13:38	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			237323	02/16/18 20:57	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237380	02/12/18 15:41	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			237425	02/12/18 15:33	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	237077	02/15/18 14:55	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236722	02/10/18 08:30	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 5.5

Lab Sample ID: 180-74229-19

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	SM 2580B		1			237422	02/12/18 15:34	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 4.0

Lab Sample ID: 180-74229-20

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			236553	02/09/18 18:47	CMR	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236440	02/08/18 11:28	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			236828	02/13/18 04:10	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			236465	02/07/18 11:58	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			236475	02/07/18 11:36	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	4 mL	100 mL	236825	02/13/18 15:26	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			236472	02/07/18 11:33	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - PH 2.0

Lab Sample ID: 180-74229-21

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	EPA 9056A		100			237859	02/26/18 12:31	MJH	TAL PIT
		Instrument ID: CHICS2000								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	237311	02/19/18 13:03	KA	TAL PIT
Leach	Analysis	EPA 6020A		10			237713	02/22/18 04:58	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			237737	02/16/18 13:49	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 2.0

Lab Sample ID: 180-74229-21

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Analysis	SM 2510B		1			237752	02/16/18 13:38	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	2 mL	100 mL	237329	02/19/18 15:41	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	237165	02/14/18 08:00	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			237751	02/16/18 13:43	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: WEST POND - NATURAL

Lab Sample ID: 180-74229-22

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			236373	02/08/18 12:03	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236437	02/08/18 11:22	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236729	02/09/18 23:14	WTR	TAL PIT
		Instrument ID: A								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	236437	02/08/18 11:22	KA	TAL PIT
Leach	Analysis	EPA 6020A		1			236828	02/13/18 01:20	WTR	TAL PIT
		Instrument ID: M								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			236465	02/07/18 14:23	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			236475	02/07/18 14:49	MTW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	236785	02/13/18 10:45	KXW	TAL PIT
		Instrument ID: NOEQUIP								
Leach	Leach	1313			40.6 g	400 mL	236165	02/05/18 11:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			236472	02/07/18 14:51	MTW	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: EAST POND - AIR DRIED

Lab Sample ID: 180-74229-23

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			235859	02/02/18 11:37	SES	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - AIR DRIED

Lab Sample ID: 180-74229-23

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			235859	02/02/18 11:37	SES	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: WEST POND - AIR DRIED

Lab Sample ID: 180-74229-24

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			235859	02/02/18 11:37	SES	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Leach

LWM = Larry Matko

Batch Type: Prep

KA = Kayla Kalamasz

Batch Type: Analysis

CLL = Cheryl Loheyde

CMR = Carl Reagle

KXW = Kaitlyn White

MJH = Matthew Hartman

MTW = Michael Wesoloski

SES = Samantha Strauser

WTR = Bill Reinheimer

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PRETEST

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-1

Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.8		0.1		%			01/24/18 09:55	1
Percent Solids	85.2		0.1		%			01/24/18 09:55	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.8		0.1		SU			02/12/18 15:07	1
pH	3.6		0.1		SU			02/12/18 15:16	1

Client Sample ID: EAST POND - PH 13.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-2

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<50		50		mg/L			02/09/18 19:50	50
Fluoride	<5.0		5.0		mg/L			02/09/18 19:50	50
Sulfate	120		50		mg/L			02/09/18 19:50	50

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3500		80		ug/L		02/08/18 11:28	02/13/18 03:43	1
Calcium	3700		500		ug/L		02/08/18 11:28	02/10/18 00:39	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.8		0.1		SU			02/07/18 12:13	1
Specific Conductance	47000		1.0		umhos/cm			02/07/18 12:01	1
Total Dissolved Solids	14000		330		mg/L			02/15/18 14:59	1
Oxidation Reduction Potential	- 50		10		millivolts			02/07/18 11:54	1

Client Sample ID: EAST POND - PH 12.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-3

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<25		25		mg/L			02/26/18 13:35	25
Fluoride	<2.5		2.5		mg/L			02/26/18 13:35	25
Sulfate	110		25		mg/L			02/26/18 13:35	25

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3400		80		ug/L		02/19/18 13:03	02/22/18 04:30	1
Calcium	3500		500		ug/L		02/19/18 13:03	02/21/18 01:20	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.5		0.1		SU			02/16/18 13:32	1
Specific Conductance	13000		1.0		umhos/cm			02/16/18 13:16	1
Total Dissolved Solids	3700		100		mg/L			02/19/18 15:41	1
Oxidation Reduction Potential	- 7		10		millivolts			02/16/18 13:18	1

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 9.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-5

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		1.0		mg/L			02/13/18 17:11	1
Fluoride	0.51		0.50		mg/L			02/14/18 16:40	5
Sulfate	110		1.0		mg/L			02/13/18 17:11	1

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2000		80		ug/L		02/13/18 13:38	02/15/18 23:15	1
Calcium	120000		500		ug/L		02/13/18 13:38	02/15/18 23:15	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.1		SU			02/12/18 15:19	1
Specific Conductance	1300		1.0		umhos/cm			02/12/18 15:01	1
Total Dissolved Solids	890		10		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	230		10		millivolts			02/12/18 15:02	1

Client Sample ID: EAST POND - PH 8.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-6

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.5		2.5		mg/L			02/13/18 17:43	2.5
Fluoride	<0.50		0.50		mg/L			02/14/18 16:56	5
Sulfate	130		2.5		mg/L			02/13/18 17:43	2.5

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3000		80		ug/L		02/13/18 13:38	02/15/18 23:06	1
Calcium	660000		500		ug/L		02/13/18 13:38	02/15/18 23:06	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.1		SU			02/12/18 15:10	1
Specific Conductance	4700		1.0		umhos/cm			02/12/18 14:51	1
Total Dissolved Solids	3600		40		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	260		10		millivolts			02/12/18 14:49	1

Client Sample ID: EAST POND - PH 7.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-7

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10		10		mg/L			02/15/18 14:02	10
Fluoride	<1.0		1.0		mg/L			02/15/18 14:02	10
Sulfate	140		10		mg/L			02/16/18 07:20	10

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4300		800		ug/L		02/13/18 13:38	02/16/18 20:43	10

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 7.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1500000		5000		ug/L		02/13/18 13:38	02/16/18 20:43	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0		0.1		SU			02/12/18 15:13	1
Specific Conductance	8500		1.0		umhos/cm			02/12/18 14:56	1
Total Dissolved Solids	6500		40		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	290		10		millivolts			02/12/18 14:55	1

Client Sample ID: EAST POND - PH 5.5

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-8

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<25		25		mg/L			02/15/18 14:18	25
Fluoride	<2.5		2.5		mg/L			02/15/18 14:18	25
Sulfate	170		25		mg/L			02/16/18 07:36	25

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	6400		800		ug/L		02/13/18 13:38	02/16/18 20:47	10
Calcium	3100000		5000		ug/L		02/13/18 13:38	02/16/18 20:47	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.8		0.1		SU			02/12/18 15:23	1
Specific Conductance	18000		1.0		umhos/cm			02/12/18 15:07	1
Total Dissolved Solids	17000		100		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	310		10		millivolts			02/12/18 15:08	1

Client Sample ID: EAST POND - PH 4.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-9

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<25		25		mg/L			02/09/18 18:15	25
Fluoride	7.5		2.5		mg/L			02/09/18 18:15	25
Sulfate	330		25		mg/L			02/09/18 18:15	25

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11000		800		ug/L		02/08/18 11:28	02/13/18 04:00	10
Calcium	5000000		5000		ug/L		02/08/18 11:28	02/13/18 04:00	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	3.8		0.1		SU			02/07/18 11:39	1
Specific Conductance	30000		1.0		umhos/cm			02/07/18 11:21	1
Total Dissolved Solids	33000		250		mg/L			02/13/18 15:26	1

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - PH 4.0

Date Collected: 01/17/18 10:18

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-9

Matrix: Solid

General Chemistry - Leach (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oxidation Reduction Potential	400		10		millivolts			02/07/18 11:16	1

Client Sample ID: EAST POND - PH 2.0

Date Collected: 01/17/18 10:37

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-10

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<100		100		mg/L			02/26/18 11:59	100
Fluoride	<10		10		mg/L			02/26/18 11:59	100
Sulfate	180		100		mg/L			02/26/18 11:59	100

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5100		800		ug/L		02/19/18 13:03	02/22/18 04:48	10
Calcium	2200000		5000		ug/L		02/19/18 13:03	02/22/18 04:48	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	2.1		0.1		SU			02/16/18 13:38	1
Specific Conductance	64000		1.0		umhos/cm			02/16/18 13:24	1
Total Dissolved Solids	74000		500		mg/L			02/19/18 15:41	1
Oxidation Reduction Potential	660		10		millivolts			02/16/18 13:26	1

Client Sample ID: EAST POND - NATURAL

Date Collected: 01/17/18 10:37

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-11

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		1.0		mg/L			02/08/18 11:47	1
Fluoride	0.32		0.10		mg/L			02/08/18 11:47	1
Sulfate	130		1.0		mg/L			02/08/18 11:47	1

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2000		80		ug/L		02/08/18 11:22	02/13/18 01:15	1
Calcium	43000		500		ug/L		02/08/18 11:22	02/09/18 23:12	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.7		0.1		SU			02/07/18 14:19	1
Specific Conductance	390		1.0		umhos/cm			02/07/18 14:45	1
Total Dissolved Solids	270		10		mg/L			02/13/18 15:26	1
Oxidation Reduction Potential	170		10		millivolts			02/07/18 14:47	1

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PRETEST

Lab Sample ID: 180-74229-12

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	38.6		0.1		%			01/24/18 09:55	1
Percent Solids	61.4		0.1		%			01/24/18 09:55	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.7		0.1		SU			02/12/18 15:32	1
pH	3.7		0.1		SU			02/12/18 15:35	1

Client Sample ID: WEST POND - PH 13.0

Lab Sample ID: 180-74229-13

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<50		50		mg/L			02/09/18 20:22	50
Fluoride	<5.0		5.0		mg/L			02/09/18 20:22	50
Sulfate	120		50		mg/L			02/09/18 20:22	50

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3700		80		ug/L		02/08/18 11:28	02/13/18 04:05	1
Calcium	3800		500		ug/L		02/08/18 11:28	02/10/18 00:50	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.8		0.1		SU			02/07/18 11:27	1
Specific Conductance	46000		1.0		umhos/cm			02/07/18 11:07	1
Total Dissolved Solids	14000		330		mg/L			02/13/18 15:26	1
Oxidation Reduction Potential	- 32		10		millivolts			02/07/18 11:04	1

Client Sample ID: WEST POND - PH 12.0

Lab Sample ID: 180-74229-14

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<25		25		mg/L			02/26/18 14:06	25
Fluoride	<2.5		2.5		mg/L			02/26/18 14:06	25
Sulfate	120		25		mg/L			02/26/18 14:06	25

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3700		80		ug/L		02/19/18 13:03	02/22/18 04:53	1
Calcium	3800		500		ug/L		02/19/18 13:03	02/21/18 01:25	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.4		0.1		SU			02/16/18 13:43	1
Specific Conductance	13000		1.0		umhos/cm			02/16/18 13:31	1
Total Dissolved Solids	4100		100		mg/L			02/19/18 15:41	1
Oxidation Reduction Potential	- 10		10		millivolts			02/16/18 13:34	1

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 9.0

Lab Sample ID: 180-74229-16

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		1.0		mg/L			02/15/18 14:33	1
Fluoride	0.20		0.10		mg/L			02/15/18 14:33	1
Sulfate	100		10		mg/L			02/16/18 07:52	10

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1800		80		ug/L		02/13/18 13:38	02/15/18 23:51	1
Calcium	130000		500		ug/L		02/13/18 13:38	02/15/18 23:51	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.1		SU			02/12/18 15:44	1
Specific Conductance	1300		1.0		umhos/cm			02/12/18 15:38	1
Total Dissolved Solids	930		10		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	250		10		millivolts			02/12/18 15:40	1

Client Sample ID: WEST POND - PH 8.0

Lab Sample ID: 180-74229-17

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.0		5.0		mg/L			02/15/18 15:05	5
Fluoride	<0.50		0.50		mg/L			02/15/18 15:05	5
Sulfate	130		5.0		mg/L			02/16/18 08:08	5

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2900		80		ug/L		02/13/18 13:38	02/15/18 23:24	1
Calcium	710000		500		ug/L		02/13/18 13:38	02/15/18 23:24	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.1		SU			02/12/18 15:26	1
Specific Conductance	4800		1.0		umhos/cm			02/12/18 15:12	1
Total Dissolved Solids	3600		40		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	280		10		millivolts			02/12/18 15:14	1

Client Sample ID: WEST POND - PH 7.0

Lab Sample ID: 180-74229-18

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10		10		mg/L			02/15/18 15:21	10
Fluoride	<1.0		1.0		mg/L			02/15/18 15:21	10
Sulfate	130		10		mg/L			02/16/18 08:24	10

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4300		800		ug/L		02/13/18 13:38	02/16/18 20:52	10

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 7.0

Lab Sample ID: 180-74229-18

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400000		5000		ug/L		02/13/18 13:38	02/16/18 20:52	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0		0.1		SU			02/12/18 15:29	1
Specific Conductance	8600		1.0		umhos/cm			02/12/18 15:17	1
Total Dissolved Solids	7500		100		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	300		10		millivolts			02/12/18 15:21	1

Client Sample ID: WEST POND - PH 5.5

Lab Sample ID: 180-74229-19

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<25		25		mg/L			02/15/18 15:37	25
Fluoride	<2.5		2.5		mg/L			02/15/18 15:37	25
Sulfate	160		25		mg/L			02/16/18 08:40	25

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	6200		800		ug/L		02/13/18 13:38	02/16/18 20:57	10
Calcium	3000000		5000		ug/L		02/13/18 13:38	02/16/18 20:57	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.9		0.1		SU			02/12/18 15:41	1
Specific Conductance	18000		1.0		umhos/cm			02/12/18 15:33	1
Total Dissolved Solids	17000		100		mg/L			02/15/18 14:55	1
Oxidation Reduction Potential	320		10		millivolts			02/12/18 15:34	1

Client Sample ID: WEST POND - PH 4.0

Lab Sample ID: 180-74229-20

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<25		25		mg/L			02/09/18 18:47	25
Fluoride	7.7		2.5		mg/L			02/09/18 18:47	25
Sulfate	360		25		mg/L			02/09/18 18:47	25

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11000		800		ug/L		02/08/18 11:28	02/13/18 04:10	10
Calcium	5100000		5000		ug/L		02/08/18 11:28	02/13/18 04:10	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	3.8		0.1		SU			02/07/18 11:58	1
Specific Conductance	30000		1.0		umhos/cm			02/07/18 11:36	1
Total Dissolved Solids	33000		250		mg/L			02/13/18 15:26	1

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: WEST POND - PH 4.0

Date Collected: 01/17/18 10:37

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-20

Matrix: Solid

General Chemistry - Leach (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oxidation Reduction Potential	410		10		millivolts			02/07/18 11:33	1

Client Sample ID: WEST POND - PH 2.0

Date Collected: 01/17/18 10:37

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-21

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<100		100		mg/L			02/26/18 12:31	100
Fluoride	<10		10		mg/L			02/26/18 12:31	100
Sulfate	180		100		mg/L			02/26/18 12:31	100

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11000		800		ug/L		02/19/18 13:03	02/22/18 04:58	10
Calcium	4400000		5000		ug/L		02/19/18 13:03	02/22/18 04:58	10

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	2.5		0.1		SU			02/16/18 13:49	1
Specific Conductance	59000		1.0		umhos/cm			02/16/18 13:38	1
Total Dissolved Solids	70000		500		mg/L			02/19/18 15:41	1
Oxidation Reduction Potential	490		10		millivolts			02/16/18 13:43	1

Client Sample ID: WEST POND - NATURAL

Date Collected: 01/17/18 10:37

Date Received: 01/18/18 12:20

Lab Sample ID: 180-74229-22

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		1.0		mg/L			02/08/18 12:03	1
Fluoride	0.53		0.10		mg/L			02/08/18 12:03	1
Sulfate	38		1.0		mg/L			02/08/18 12:03	1

Method: EPA 6020A - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1900		80		ug/L		02/08/18 11:22	02/13/18 01:20	1
Calcium	42000		500		ug/L		02/08/18 11:22	02/09/18 23:14	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.7		0.1		SU			02/07/18 14:23	1
Specific Conductance	400		1.0		umhos/cm			02/07/18 14:49	1
Total Dissolved Solids	240		10		mg/L			02/13/18 10:45	1
Oxidation Reduction Potential	170		10		millivolts			02/07/18 14:51	1

TestAmerica Pittsburgh

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Client Sample ID: EAST POND - AIR DRIED

Lab Sample ID: 180-74229-23

Date Collected: 01/17/18 10:18

Matrix: Solid

Date Received: 01/18/18 12:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.2		0.1		%			02/02/18 11:37	1
Percent Solids	98.8		0.1		%			02/02/18 11:37	1

Client Sample ID: WEST POND - AIR DRIED

Lab Sample ID: 180-74229-24

Date Collected: 01/17/18 10:37

Matrix: Solid

Date Received: 01/18/18 12:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	1.4		0.1		%			02/02/18 11:37	1
Percent Solids	98.6		0.1		%			02/02/18 11:37	1

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-236373/6

Matrix: Solid

Analysis Batch: 236373

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/08/18 06:17	1
Fluoride	<0.10		0.10		mg/L			02/08/18 06:17	1
Sulfate	<1.0		1.0		mg/L			02/08/18 06:17	1

Lab Sample ID: LCS 180-236373/5

Matrix: Solid

Analysis Batch: 236373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.0		mg/L		100	80 - 120
Fluoride	1.25	1.02		mg/L		82	80 - 120
Sulfate	25.0	24.0		mg/L		96	80 - 120

Lab Sample ID: MB 180-236553/16

Matrix: Solid

Analysis Batch: 236553

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/09/18 16:56	1
Fluoride	<0.10		0.10		mg/L			02/09/18 16:56	1
Sulfate	<1.0		1.0		mg/L			02/09/18 16:56	1

Lab Sample ID: LCS 180-236553/15

Matrix: Solid

Analysis Batch: 236553

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.9		mg/L		103	80 - 120
Fluoride	1.25	1.20		mg/L		96	80 - 120
Sulfate	25.0	22.0		mg/L		88	80 - 120

Lab Sample ID: MB 180-236732/6

Matrix: Solid

Analysis Batch: 236732

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/13/18 05:33	1
Sulfate	<1.0		1.0		mg/L			02/13/18 05:33	1

Lab Sample ID: LCS 180-236732/5

Matrix: Solid

Analysis Batch: 236732

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.9		mg/L		103	80 - 120
Sulfate	25.0	25.1		mg/L		100	80 - 120

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-236891/6

Matrix: Solid

Analysis Batch: 236891

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/14/18 11:05	1
Fluoride	<0.10		0.10		mg/L			02/14/18 11:05	1
Sulfate	<1.0		1.0		mg/L			02/14/18 11:05	1

Lab Sample ID: LCS 180-236891/5

Matrix: Solid

Analysis Batch: 236891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.9		mg/L		104	80 - 120
Fluoride	2.50	2.58		mg/L		103	80 - 120
Sulfate	50.0	49.2		mg/L		98	80 - 120

Lab Sample ID: MB 180-236997/6

Matrix: Solid

Analysis Batch: 236997

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/15/18 09:09	1
Fluoride	<0.10		0.10		mg/L			02/15/18 09:09	1
Sulfate	<1.0		1.0		mg/L			02/15/18 09:09	1

Lab Sample ID: LCS 180-236997/5

Matrix: Solid

Analysis Batch: 236997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.6		mg/L		99	80 - 120
Fluoride	2.50	2.35		mg/L		94	80 - 120
Sulfate	50.0	45.6		mg/L		91	80 - 120

Lab Sample ID: MB 180-237100/6

Matrix: Solid

Analysis Batch: 237100

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/16/18 06:07	1
Fluoride	<0.10		0.10		mg/L			02/16/18 06:07	1
Sulfate	<1.0		1.0		mg/L			02/16/18 06:07	1

Lab Sample ID: LCS 180-237100/5

Matrix: Solid

Analysis Batch: 237100

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	45.2		mg/L		90	80 - 120

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-237859/6

Matrix: Solid

Analysis Batch: 237859

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			02/26/18 08:06	1
Fluoride	<0.10		0.10		mg/L			02/26/18 08:06	1
Sulfate	<1.0		1.0		mg/L			02/26/18 08:06	1

Lab Sample ID: LCS 180-237859/5

Matrix: Solid

Analysis Batch: 237859

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.4		mg/L		106	80 - 120
Fluoride	1.25	1.23		mg/L		99	80 - 120
Sulfate	25.0	22.5		mg/L		90	80 - 120

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

Lab Sample ID: MB 180-236437/1-A

Matrix: Solid

Analysis Batch: 236729

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 236437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<500		500		ug/L		02/08/18 11:22	02/09/18 22:43	1

Lab Sample ID: MB 180-236437/1-A

Matrix: Solid

Analysis Batch: 236828

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 236437

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<80		80		ug/L		02/08/18 11:22	02/13/18 00:25	1

Lab Sample ID: LCS 180-236437/2-A

Matrix: Solid

Analysis Batch: 236729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 236437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	53100		ug/L		106	80 - 120

Lab Sample ID: LCS 180-236437/2-A

Matrix: Solid

Analysis Batch: 236828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 236437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	1010		ug/L		101	80 - 120

Lab Sample ID: LCSD 180-236437/3-A

Matrix: Solid

Analysis Batch: 236729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 236437

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	50000	52500		ug/L		105	80 - 120	1	20

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

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

Lab Sample ID: LCSD 180-236437/3-A

Matrix: Solid

Analysis Batch: 236828

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 236437

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	1030		ug/L		103	80 - 120	2	20

Lab Sample ID: MB 180-236440/1-A

Matrix: Solid

Analysis Batch: 236729

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 236440

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<500		500		ug/L		02/08/18 11:28	02/10/18 00:04	1

Lab Sample ID: MB 180-236440/1-A

Matrix: Solid

Analysis Batch: 236828

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 236440

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<80		80		ug/L		02/08/18 11:28	02/13/18 02:47	1

Lab Sample ID: LCS 180-236440/2-A

Matrix: Solid

Analysis Batch: 236729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 236440

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium	50000	52800		ug/L		106	80 - 120		

Lab Sample ID: LCS 180-236440/2-A

Matrix: Solid

Analysis Batch: 236828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 236440

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron	1000	916		ug/L		92	80 - 120		

Lab Sample ID: LCSD 180-236440/3-A

Matrix: Solid

Analysis Batch: 236729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 236440

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	50000	51500		ug/L		103	80 - 120	2	20

Lab Sample ID: LCSD 180-236440/3-A

Matrix: Solid

Analysis Batch: 236828

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 236440

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	917		ug/L		92	80 - 120	0	20

Lab Sample ID: MB 180-236807/1-A

Matrix: Solid

Analysis Batch: 237198

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 236807

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<80		80		ug/L		02/13/18 13:38	02/15/18 21:43	1

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

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

Lab Sample ID: MB 180-236807/1-A
Matrix: Solid
Analysis Batch: 237198

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 236807

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<500		500		ug/L		02/13/18 13:38	02/15/18 21:43	1

Lab Sample ID: LCS 180-236807/2-A
Matrix: Solid
Analysis Batch: 237198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 236807

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	866		ug/L		87	80 - 120
Calcium	50000	46700		ug/L		93	80 - 120

Lab Sample ID: LCSD 180-236807/3-A
Matrix: Solid
Analysis Batch: 237198

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 236807

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	879		ug/L		88	80 - 120	1	20
Calcium	50000	46500		ug/L		93	80 - 120	1	20

Lab Sample ID: MB 180-237311/1-A
Matrix: Solid
Analysis Batch: 237590

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 237311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<500		500		ug/L		02/19/18 13:03	02/21/18 00:31	1

Lab Sample ID: MB 180-237311/1-A
Matrix: Solid
Analysis Batch: 237713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 237311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<80		80		ug/L		02/19/18 13:03	02/22/18 03:08	1

Lab Sample ID: LCS 180-237311/2-A
Matrix: Solid
Analysis Batch: 237590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 237311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	48400		ug/L		97	80 - 120

Lab Sample ID: LCS 180-237311/2-A
Matrix: Solid
Analysis Batch: 237713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 237311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	1010		ug/L		101	80 - 120

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

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

Lab Sample ID: LCSD 180-237311/3-A
Matrix: Solid
Analysis Batch: 237590

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 237311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	50000	48200		ug/L		96	80 - 120	0	20

Lab Sample ID: LCSD 180-237311/3-A
Matrix: Solid
Analysis Batch: 237713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 237311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1000	1020		ug/L		102	80 - 120	0	20

Method: 2540G - SM 2540G

Lab Sample ID: 180-74229-1 DU
Matrix: Solid
Analysis Batch: 234978

Client Sample ID: EAST POND - PRETEST
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Percent Moisture	14.8		17.0		%				14	20
Percent Solids	85.2		83.0		%				3	20

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-236465/1
Matrix: Solid
Analysis Batch: 236465

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH	7.00	7.0		SU		100	99 - 101		

Lab Sample ID: LCS 180-236465/24
Matrix: Solid
Analysis Batch: 236465

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH	7.00	7.0		SU		100	99 - 101		

Lab Sample ID: LCS 180-236465/47
Matrix: Solid
Analysis Batch: 236465

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH	7.00	7.0		SU		100	99 - 101		

Lab Sample ID: LCS 180-237380/1
Matrix: Solid
Analysis Batch: 237380

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
pH	7.00	7.0		SU		100	99 - 101		

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Method: EPA 9040C - pH (Continued)

Lab Sample ID: LCS 180-237737/1

Matrix: Solid

Analysis Batch: 237737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 180-236475/17

Matrix: Solid

Analysis Batch: 236475

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<1.0		1.0		umhos/cm			02/07/18 11:58	1

Lab Sample ID: MB 180-236475/2

Matrix: Solid

Analysis Batch: 236475

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<1.0		1.0		umhos/cm			02/07/18 11:03	1

Lab Sample ID: MB 180-236475/43

Matrix: Solid

Analysis Batch: 236475

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<1.0		1.0		umhos/cm			02/07/18 13:32	1

Lab Sample ID: LCS 180-236475/1

Matrix: Solid

Analysis Batch: 236475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	84.0	85.1		umhos/cm		101	90 - 110

Lab Sample ID: LCS 180-236475/16

Matrix: Solid

Analysis Batch: 236475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	84.0	85.0		umhos/cm		101	90 - 110

Lab Sample ID: LCS 180-236475/42

Matrix: Solid

Analysis Batch: 236475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	84.0	85.1		umhos/cm		101	90 - 110

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: MB 180-237425/2

Matrix: Solid

Analysis Batch: 237425

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<1.0		1.0		umhos/cm			02/12/18 10:05	1

Lab Sample ID: LCS 180-237425/1

Matrix: Solid

Analysis Batch: 237425

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	84.0	85.0		umhos/cm		101	90 - 110

Lab Sample ID: MB 180-237752/2

Matrix: Solid

Analysis Batch: 237752

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<1.0		1.0		umhos/cm			02/16/18 08:07	1

Lab Sample ID: LCS 180-237752/1

Matrix: Solid

Analysis Batch: 237752

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	84.0	85.1		umhos/cm		101	90 - 110

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

Lab Sample ID: MB 180-236785/2

Matrix: Solid

Analysis Batch: 236785

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/13/18 10:45	1

Lab Sample ID: LCS 180-236785/1

Matrix: Solid

Analysis Batch: 236785

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	339	388		mg/L		114	80 - 120

Lab Sample ID: MB 180-236825/2

Matrix: Solid

Analysis Batch: 236825

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/13/18 15:26	1

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

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

Lab Sample ID: LCS 180-236825/1

Matrix: Solid

Analysis Batch: 236825

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	339	364		mg/L		107	80 - 120

Lab Sample ID: MB 180-237077/2

Matrix: Solid

Analysis Batch: 237077

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/15/18 14:55	1

Lab Sample ID: LCS 180-237077/1

Matrix: Solid

Analysis Batch: 237077

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	339	346		mg/L		102	80 - 120

Lab Sample ID: MB 180-237078/2

Matrix: Solid

Analysis Batch: 237078

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/15/18 14:59	1

Lab Sample ID: LCS 180-237078/1

Matrix: Solid

Analysis Batch: 237078

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	339	342		mg/L		101	80 - 120

Lab Sample ID: MB 180-237329/2

Matrix: Solid

Analysis Batch: 237329

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/19/18 15:41	1

Lab Sample ID: LCS 180-237329/1

Matrix: Solid

Analysis Batch: 237329

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	339	330		mg/L		97	80 - 120

Lab Sample ID: 180-74229-13 DU

Matrix: Solid

Analysis Batch: 236825

Client Sample ID: WEST POND - PH 13.0

Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	14000		14200		mg/L		1	10

TestAmerica Pittsburgh

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Lab Sample ID: 180-74229-19 DU
Matrix: Solid
Analysis Batch: 237077

Client Sample ID: WEST POND - PH 5.5
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	17000		17200		mg/L		2	10

Lab Sample ID: 180-74229-2 DU
Matrix: Solid
Analysis Batch: 237078

Client Sample ID: EAST POND - PH 13.0
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	14000		13400		mg/L		2	10

Method: SM 2580B - Reduction-Oxidation (REDOX) Potential

Lab Sample ID: LCS 180-236472/1
Matrix: Solid
Analysis Batch: 236472

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	467		millivolts		98	90 - 110

Lab Sample ID: LCS 180-236472/13
Matrix: Solid
Analysis Batch: 236472

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	465		millivolts		98	90 - 110

Lab Sample ID: LCS 180-236472/36
Matrix: Solid
Analysis Batch: 236472

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	463		millivolts		97	90 - 110

Lab Sample ID: LCS 180-237422/1
Matrix: Solid
Analysis Batch: 237422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	466		millivolts		98	90 - 110

Lab Sample ID: LCS 180-237751/1
Matrix: Solid
Analysis Batch: 237751

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	467		millivolts		98	90 - 110

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

HPLC/IC

Leach Batch: 236165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	1313	
180-74229-9	EAST POND - PH 4.0	Leach	Solid	1313	
180-74229-11	EAST POND - NATURAL	Leach	Solid	1313	
180-74229-13	WEST POND - PH 13.0	Leach	Solid	1313	
180-74229-20	WEST POND - PH 4.0	Leach	Solid	1313	
180-74229-22	WEST POND - NATURAL	Leach	Solid	1313	

Analysis Batch: 236373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-11	EAST POND - NATURAL	Leach	Solid	EPA 9056A	236165
180-74229-22	WEST POND - NATURAL	Leach	Solid	EPA 9056A	236165
MB 180-236373/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-236373/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Analysis Batch: 236553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	EPA 9056A	236165
180-74229-9	EAST POND - PH 4.0	Leach	Solid	EPA 9056A	236165
180-74229-13	WEST POND - PH 13.0	Leach	Solid	EPA 9056A	236165
180-74229-20	WEST POND - PH 4.0	Leach	Solid	EPA 9056A	236165
MB 180-236553/16	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-236553/15	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Leach Batch: 236722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	1313	
180-74229-6	EAST POND - PH 8.0	Leach	Solid	1313	
180-74229-7	EAST POND - PH 7.0	Leach	Solid	1313	
180-74229-8	EAST POND - PH 5.5	Leach	Solid	1313	
180-74229-16	WEST POND - PH 9.0	Leach	Solid	1313	
180-74229-17	WEST POND - PH 8.0	Leach	Solid	1313	
180-74229-18	WEST POND - PH 7.0	Leach	Solid	1313	
180-74229-19	WEST POND - PH 5.5	Leach	Solid	1313	

Analysis Batch: 236732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	EPA 9056A	236722
180-74229-6	EAST POND - PH 8.0	Leach	Solid	EPA 9056A	236722
MB 180-236732/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-236732/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Analysis Batch: 236891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	EPA 9056A	236722
180-74229-6	EAST POND - PH 8.0	Leach	Solid	EPA 9056A	236722
MB 180-236891/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-236891/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Analysis Batch: 236997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-7	EAST POND - PH 7.0	Leach	Solid	EPA 9056A	236722

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

HPLC/IC (Continued)

Analysis Batch: 236997 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-8	EAST POND - PH 5.5	Leach	Solid	EPA 9056A	236722
180-74229-16	WEST POND - PH 9.0	Leach	Solid	EPA 9056A	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	EPA 9056A	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	EPA 9056A	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	EPA 9056A	236722
MB 180-236997/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-236997/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Analysis Batch: 237100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-7	EAST POND - PH 7.0	Leach	Solid	EPA 9056A	236722
180-74229-8	EAST POND - PH 5.5	Leach	Solid	EPA 9056A	236722
180-74229-16	WEST POND - PH 9.0	Leach	Solid	EPA 9056A	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	EPA 9056A	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	EPA 9056A	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	EPA 9056A	236722
MB 180-237100/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-237100/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Leach Batch: 237165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	1313	
180-74229-10	EAST POND - PH 2.0	Leach	Solid	1313	
180-74229-14	WEST POND - PH 12.0	Leach	Solid	1313	
180-74229-21	WEST POND - PH 2.0	Leach	Solid	1313	

Analysis Batch: 237859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	EPA 9056A	237165
180-74229-10	EAST POND - PH 2.0	Leach	Solid	EPA 9056A	237165
180-74229-14	WEST POND - PH 12.0	Leach	Solid	EPA 9056A	237165
180-74229-21	WEST POND - PH 2.0	Leach	Solid	EPA 9056A	237165
MB 180-237859/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-237859/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Metals

Leach Batch: 236165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	1313	
180-74229-9	EAST POND - PH 4.0	Leach	Solid	1313	
180-74229-11	EAST POND - NATURAL	Leach	Solid	1313	
180-74229-13	WEST POND - PH 13.0	Leach	Solid	1313	
180-74229-20	WEST POND - PH 4.0	Leach	Solid	1313	
180-74229-22	WEST POND - NATURAL	Leach	Solid	1313	

Prep Batch: 236437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-11	EAST POND - NATURAL	Leach	Solid	3010A	236165
180-74229-22	WEST POND - NATURAL	Leach	Solid	3010A	236165

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Metals (Continued)

Prep Batch: 236437 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-236437/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 180-236437/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 180-236437/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

Prep Batch: 236440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	3010A	236165
180-74229-9	EAST POND - PH 4.0	Leach	Solid	3010A	236165
180-74229-13	WEST POND - PH 13.0	Leach	Solid	3010A	236165
180-74229-20	WEST POND - PH 4.0	Leach	Solid	3010A	236165
MB 180-236440/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 180-236440/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 180-236440/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

Leach Batch: 236722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	1313	
180-74229-6	EAST POND - PH 8.0	Leach	Solid	1313	
180-74229-7	EAST POND - PH 7.0	Leach	Solid	1313	
180-74229-8	EAST POND - PH 5.5	Leach	Solid	1313	
180-74229-16	WEST POND - PH 9.0	Leach	Solid	1313	
180-74229-17	WEST POND - PH 8.0	Leach	Solid	1313	
180-74229-18	WEST POND - PH 7.0	Leach	Solid	1313	
180-74229-19	WEST POND - PH 5.5	Leach	Solid	1313	

Analysis Batch: 236729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	EPA 6020A	236440
180-74229-11	EAST POND - NATURAL	Leach	Solid	EPA 6020A	236437
180-74229-13	WEST POND - PH 13.0	Leach	Solid	EPA 6020A	236440
180-74229-22	WEST POND - NATURAL	Leach	Solid	EPA 6020A	236437
MB 180-236437/1-A	Method Blank	Total/NA	Solid	EPA 6020A	236437
MB 180-236440/1-A	Method Blank	Total/NA	Solid	EPA 6020A	236440
LCS 180-236437/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	236437
LCS 180-236440/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	236440
LCSD 180-236437/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	236437
LCSD 180-236440/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	236440

Prep Batch: 236807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	3010A	236722
180-74229-6	EAST POND - PH 8.0	Leach	Solid	3010A	236722
180-74229-7	EAST POND - PH 7.0	Leach	Solid	3010A	236722
180-74229-8	EAST POND - PH 5.5	Leach	Solid	3010A	236722
180-74229-16	WEST POND - PH 9.0	Leach	Solid	3010A	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	3010A	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	3010A	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	3010A	236722
MB 180-236807/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 180-236807/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 180-236807/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Analysis Batch: 236828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	EPA 6020A	236440
180-74229-9	EAST POND - PH 4.0	Leach	Solid	EPA 6020A	236440
180-74229-11	EAST POND - NATURAL	Leach	Solid	EPA 6020A	236437
180-74229-13	WEST POND - PH 13.0	Leach	Solid	EPA 6020A	236440
180-74229-20	WEST POND - PH 4.0	Leach	Solid	EPA 6020A	236440
180-74229-22	WEST POND - NATURAL	Leach	Solid	EPA 6020A	236437
MB 180-236437/1-A	Method Blank	Total/NA	Solid	EPA 6020A	236437
MB 180-236440/1-A	Method Blank	Total/NA	Solid	EPA 6020A	236440
LCS 180-236437/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	236437
LCS 180-236440/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	236440
LCSD 180-236437/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	236437
LCSD 180-236440/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	236440

Leach Batch: 237165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	1313	
180-74229-10	EAST POND - PH 2.0	Leach	Solid	1313	
180-74229-14	WEST POND - PH 12.0	Leach	Solid	1313	
180-74229-21	WEST POND - PH 2.0	Leach	Solid	1313	

Analysis Batch: 237198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	EPA 6020A	236807
180-74229-6	EAST POND - PH 8.0	Leach	Solid	EPA 6020A	236807
180-74229-16	WEST POND - PH 9.0	Leach	Solid	EPA 6020A	236807
180-74229-17	WEST POND - PH 8.0	Leach	Solid	EPA 6020A	236807
MB 180-236807/1-A	Method Blank	Total/NA	Solid	EPA 6020A	236807
LCS 180-236807/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	236807
LCSD 180-236807/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	236807

Prep Batch: 237311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	3010A	237165
180-74229-10	EAST POND - PH 2.0	Leach	Solid	3010A	237165
180-74229-14	WEST POND - PH 12.0	Leach	Solid	3010A	237165
180-74229-21	WEST POND - PH 2.0	Leach	Solid	3010A	237165
MB 180-237311/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 180-237311/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 180-237311/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

Analysis Batch: 237323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-7	EAST POND - PH 7.0	Leach	Solid	EPA 6020A	236807
180-74229-8	EAST POND - PH 5.5	Leach	Solid	EPA 6020A	236807
180-74229-18	WEST POND - PH 7.0	Leach	Solid	EPA 6020A	236807
180-74229-19	WEST POND - PH 5.5	Leach	Solid	EPA 6020A	236807

Analysis Batch: 237590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	EPA 6020A	237311
180-74229-14	WEST POND - PH 12.0	Leach	Solid	EPA 6020A	237311
MB 180-237311/1-A	Method Blank	Total/NA	Solid	EPA 6020A	237311
LCS 180-237311/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	237311

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Metals (Continued)

Analysis Batch: 237590 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 180-237311/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	237311

Analysis Batch: 237713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	EPA 6020A	237311
180-74229-10	EAST POND - PH 2.0	Leach	Solid	EPA 6020A	237311
180-74229-14	WEST POND - PH 12.0	Leach	Solid	EPA 6020A	237311
180-74229-21	WEST POND - PH 2.0	Leach	Solid	EPA 6020A	237311
MB 180-237311/1-A	Method Blank	Total/NA	Solid	EPA 6020A	237311
LCS 180-237311/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	237311
LCSD 180-237311/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020A	237311

General Chemistry

Analysis Batch: 234978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-1	EAST POND - PRETEST	Total/NA	Solid	2540G	
180-74229-12	WEST POND - PRETEST	Total/NA	Solid	2540G	
180-74229-1 DU	EAST POND - PRETEST	Total/NA	Solid	2540G	

Analysis Batch: 235859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-23	EAST POND - AIR DRIED	Total/NA	Solid	2540G	
180-74229-24	WEST POND - AIR DRIED	Total/NA	Solid	2540G	

Leach Batch: 236165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	1313	
180-74229-9	EAST POND - PH 4.0	Leach	Solid	1313	
180-74229-11	EAST POND - NATURAL	Leach	Solid	1313	
180-74229-13	WEST POND - PH 13.0	Leach	Solid	1313	
180-74229-20	WEST POND - PH 4.0	Leach	Solid	1313	
180-74229-22	WEST POND - NATURAL	Leach	Solid	1313	
180-74229-2 DU	EAST POND - PH 13.0	Leach	Solid	1313	
180-74229-13 DU	WEST POND - PH 13.0	Leach	Solid	1313	

Analysis Batch: 236465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	EPA 9040C	236165
180-74229-9	EAST POND - PH 4.0	Leach	Solid	EPA 9040C	236165
180-74229-11	EAST POND - NATURAL	Leach	Solid	EPA 9040C	236165
180-74229-13	WEST POND - PH 13.0	Leach	Solid	EPA 9040C	236165
180-74229-20	WEST POND - PH 4.0	Leach	Solid	EPA 9040C	236165
180-74229-22	WEST POND - NATURAL	Leach	Solid	EPA 9040C	236165
LCS 180-236465/1	Lab Control Sample	Total/NA	Solid	EPA 9040C	
LCS 180-236465/24	Lab Control Sample	Total/NA	Solid	EPA 9040C	
LCS 180-236465/47	Lab Control Sample	Total/NA	Solid	EPA 9040C	

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

General Chemistry (Continued)

Analysis Batch: 236472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	SM 2580B	236165
180-74229-9	EAST POND - PH 4.0	Leach	Solid	SM 2580B	236165
180-74229-11	EAST POND - NATURAL	Leach	Solid	SM 2580B	236165
180-74229-13	WEST POND - PH 13.0	Leach	Solid	SM 2580B	236165
180-74229-20	WEST POND - PH 4.0	Leach	Solid	SM 2580B	236165
180-74229-22	WEST POND - NATURAL	Leach	Solid	SM 2580B	236165
LCS 180-236472/1	Lab Control Sample	Total/NA	Solid	SM 2580B	
LCS 180-236472/13	Lab Control Sample	Total/NA	Solid	SM 2580B	
LCS 180-236472/36	Lab Control Sample	Total/NA	Solid	SM 2580B	

Analysis Batch: 236475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	SM 2510B	236165
180-74229-9	EAST POND - PH 4.0	Leach	Solid	SM 2510B	236165
180-74229-11	EAST POND - NATURAL	Leach	Solid	SM 2510B	236165
180-74229-13	WEST POND - PH 13.0	Leach	Solid	SM 2510B	236165
180-74229-20	WEST POND - PH 4.0	Leach	Solid	SM 2510B	236165
180-74229-22	WEST POND - NATURAL	Leach	Solid	SM 2510B	236165
MB 180-236475/17	Method Blank	Total/NA	Solid	SM 2510B	
MB 180-236475/2	Method Blank	Total/NA	Solid	SM 2510B	
MB 180-236475/43	Method Blank	Total/NA	Solid	SM 2510B	
LCS 180-236475/1	Lab Control Sample	Total/NA	Solid	SM 2510B	
LCS 180-236475/16	Lab Control Sample	Total/NA	Solid	SM 2510B	
LCS 180-236475/42	Lab Control Sample	Total/NA	Solid	SM 2510B	

Leach Batch: 236722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	1313	
180-74229-6	EAST POND - PH 8.0	Leach	Solid	1313	
180-74229-7	EAST POND - PH 7.0	Leach	Solid	1313	
180-74229-8	EAST POND - PH 5.5	Leach	Solid	1313	
180-74229-16	WEST POND - PH 9.0	Leach	Solid	1313	
180-74229-17	WEST POND - PH 8.0	Leach	Solid	1313	
180-74229-18	WEST POND - PH 7.0	Leach	Solid	1313	
180-74229-19	WEST POND - PH 5.5	Leach	Solid	1313	
180-74229-19 DU	WEST POND - PH 5.5	Leach	Solid	1313	

Analysis Batch: 236785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-22	WEST POND - NATURAL	Leach	Solid	SM 2540C	236165
MB 180-236785/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-236785/1	Lab Control Sample	Total/NA	Solid	SM 2540C	

Analysis Batch: 236825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-9	EAST POND - PH 4.0	Leach	Solid	SM 2540C	236165
180-74229-11	EAST POND - NATURAL	Leach	Solid	SM 2540C	236165
180-74229-13	WEST POND - PH 13.0	Leach	Solid	SM 2540C	236165
180-74229-20	WEST POND - PH 4.0	Leach	Solid	SM 2540C	236165
MB 180-236825/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-236825/1	Lab Control Sample	Total/NA	Solid	SM 2540C	

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

General Chemistry (Continued)

Analysis Batch: 236825 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-13 DU	WEST POND - PH 13.0	Leach	Solid	SM 2540C	236165

Analysis Batch: 237077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	SM 2540C	236722
180-74229-6	EAST POND - PH 8.0	Leach	Solid	SM 2540C	236722
180-74229-7	EAST POND - PH 7.0	Leach	Solid	SM 2540C	236722
180-74229-8	EAST POND - PH 5.5	Leach	Solid	SM 2540C	236722
180-74229-16	WEST POND - PH 9.0	Leach	Solid	SM 2540C	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	SM 2540C	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	SM 2540C	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	SM 2540C	236722
MB 180-237077/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-237077/1	Lab Control Sample	Total/NA	Solid	SM 2540C	
180-74229-19 DU	WEST POND - PH 5.5	Leach	Solid	SM 2540C	236722

Analysis Batch: 237078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-2	EAST POND - PH 13.0	Leach	Solid	SM 2540C	236165
MB 180-237078/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-237078/1	Lab Control Sample	Total/NA	Solid	SM 2540C	
180-74229-2 DU	EAST POND - PH 13.0	Leach	Solid	SM 2540C	236165

Leach Batch: 237107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-1	EAST POND - PRETEST	Leach	Solid	1313	
180-74229-1	EAST POND - PRETEST	Leach	Solid	1313	
180-74229-12	WEST POND - PRETEST	Leach	Solid	1313	
180-74229-12	WEST POND - PRETEST	Leach	Solid	1313	

Leach Batch: 237165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	1313	
180-74229-10	EAST POND - PH 2.0	Leach	Solid	1313	
180-74229-14	WEST POND - PH 12.0	Leach	Solid	1313	
180-74229-21	WEST POND - PH 2.0	Leach	Solid	1313	

Analysis Batch: 237329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	SM 2540C	237165
180-74229-10	EAST POND - PH 2.0	Leach	Solid	SM 2540C	237165
180-74229-14	WEST POND - PH 12.0	Leach	Solid	SM 2540C	237165
180-74229-21	WEST POND - PH 2.0	Leach	Solid	SM 2540C	237165
MB 180-237329/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-237329/1	Lab Control Sample	Total/NA	Solid	SM 2540C	

Analysis Batch: 237380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-1	EAST POND - PRETEST	Leach	Solid	EPA 9040C	237107
180-74229-1	EAST POND - PRETEST	Leach	Solid	EPA 9040C	237107
180-74229-5	EAST POND - PH 9.0	Leach	Solid	EPA 9040C	236722

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

General Chemistry (Continued)

Analysis Batch: 237380 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-6	EAST POND - PH 8.0	Leach	Solid	EPA 9040C	236722
180-74229-7	EAST POND - PH 7.0	Leach	Solid	EPA 9040C	236722
180-74229-8	EAST POND - PH 5.5	Leach	Solid	EPA 9040C	236722
180-74229-12	WEST POND - PRETEST	Leach	Solid	EPA 9040C	237107
180-74229-12	WEST POND - PRETEST	Leach	Solid	EPA 9040C	237107
180-74229-16	WEST POND - PH 9.0	Leach	Solid	EPA 9040C	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	EPA 9040C	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	EPA 9040C	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	EPA 9040C	236722
LCS 180-237380/1	Lab Control Sample	Total/NA	Solid	EPA 9040C	

Analysis Batch: 237422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	SM 2580B	236722
180-74229-6	EAST POND - PH 8.0	Leach	Solid	SM 2580B	236722
180-74229-7	EAST POND - PH 7.0	Leach	Solid	SM 2580B	236722
180-74229-8	EAST POND - PH 5.5	Leach	Solid	SM 2580B	236722
180-74229-16	WEST POND - PH 9.0	Leach	Solid	SM 2580B	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	SM 2580B	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	SM 2580B	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	SM 2580B	236722
LCS 180-237422/1	Lab Control Sample	Total/NA	Solid	SM 2580B	

Analysis Batch: 237425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-5	EAST POND - PH 9.0	Leach	Solid	SM 2510B	236722
180-74229-6	EAST POND - PH 8.0	Leach	Solid	SM 2510B	236722
180-74229-7	EAST POND - PH 7.0	Leach	Solid	SM 2510B	236722
180-74229-8	EAST POND - PH 5.5	Leach	Solid	SM 2510B	236722
180-74229-16	WEST POND - PH 9.0	Leach	Solid	SM 2510B	236722
180-74229-17	WEST POND - PH 8.0	Leach	Solid	SM 2510B	236722
180-74229-18	WEST POND - PH 7.0	Leach	Solid	SM 2510B	236722
180-74229-19	WEST POND - PH 5.5	Leach	Solid	SM 2510B	236722
MB 180-237425/2	Method Blank	Total/NA	Solid	SM 2510B	
LCS 180-237425/1	Lab Control Sample	Total/NA	Solid	SM 2510B	

Analysis Batch: 237737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	EPA 9040C	237165
180-74229-10	EAST POND - PH 2.0	Leach	Solid	EPA 9040C	237165
180-74229-14	WEST POND - PH 12.0	Leach	Solid	EPA 9040C	237165
180-74229-21	WEST POND - PH 2.0	Leach	Solid	EPA 9040C	237165
LCS 180-237737/1	Lab Control Sample	Total/NA	Solid	EPA 9040C	

Analysis Batch: 237751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	SM 2580B	237165
180-74229-10	EAST POND - PH 2.0	Leach	Solid	SM 2580B	237165
180-74229-14	WEST POND - PH 12.0	Leach	Solid	SM 2580B	237165
180-74229-21	WEST POND - PH 2.0	Leach	Solid	SM 2580B	237165
LCS 180-237751/1	Lab Control Sample	Total/NA	Solid	SM 2580B	

TestAmerica Pittsburgh

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Midwest Generation

TestAmerica Job ID: 180-74229-1

Analysis Batch: 237752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-74229-3	EAST POND - PH 12.0	Leach	Solid	SM 2510B	237165
180-74229-10	EAST POND - PH 2.0	Leach	Solid	SM 2510B	237165
180-74229-14	WEST POND - PH 12.0	Leach	Solid	SM 2510B	237165
180-74229-21	WEST POND - PH 2.0	Leach	Solid	SM 2510B	237165
MB 180-237752/2	Method Blank	Total/NA	Solid	SM 2510B	
LCS 180-237752/1	Lab Control Sample	Total/NA	Solid	SM 2510B	

ORIGIN ID:RRLA
SHIPPING
TESTAMERICA
4125 N 24TH ST

BROOKFIELD, WI 53005
UNITED STATES US

SHIP DATE:
ACTWGT:
CAD: 5

1 10:30 5482
01.18

RT 97
FZ B02

TO **SAMPLE RECEIPT**
TESTAMERICA
301 ALPHA DR.

PITTSBURGH PA 15238

(412) 963-7058

REF:

DEPT:

FedEx
Express



180-74229 Waybill

- 18 JAN 10:30A

PRIORITY OVERNIGHT

TRK# 7125 4937 5482

0201

NA AGCA

uncorrected temp
thermometer ID

0.5 °C
4

Initials

90

38
IT

WI-SR-001 effective 7/26/13



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 180-74229-1

Login Number: 74229

List Number: 1

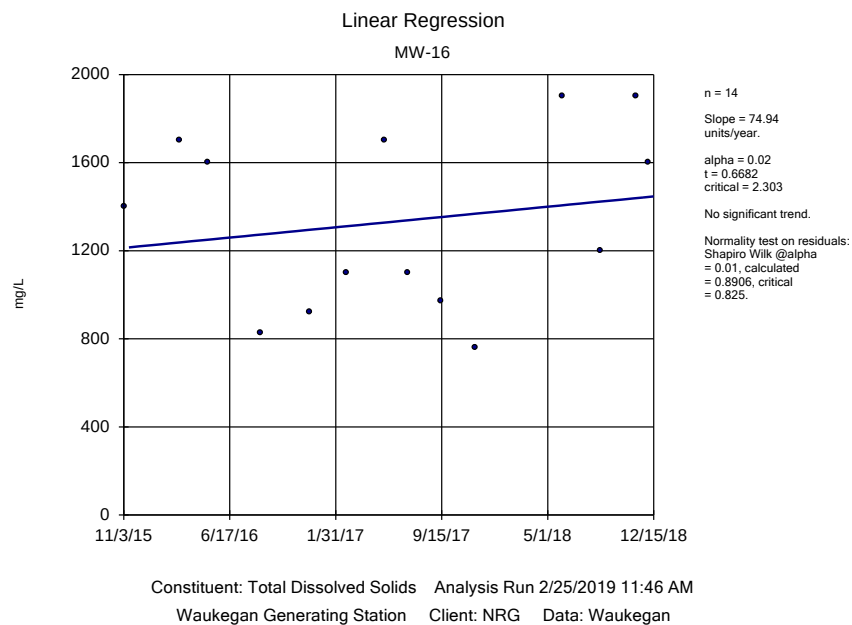
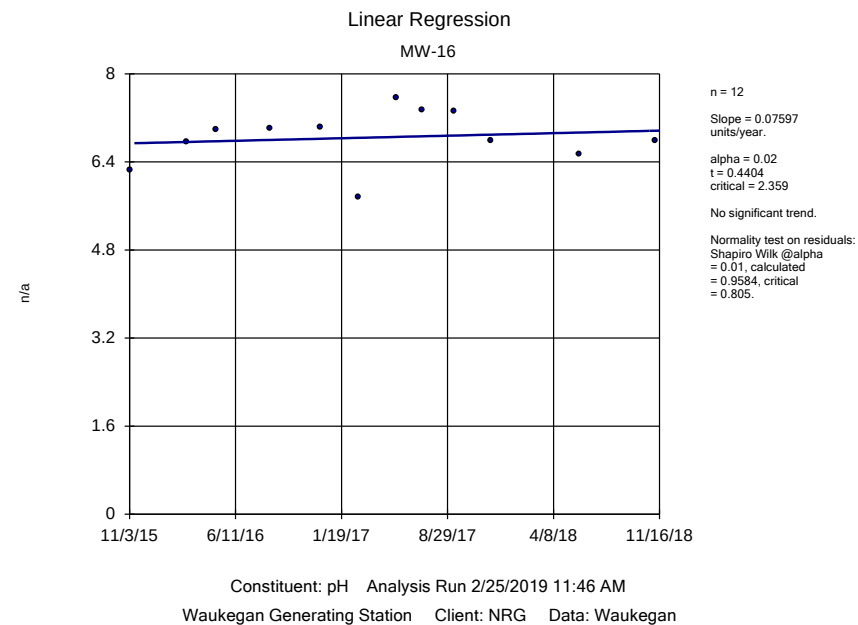
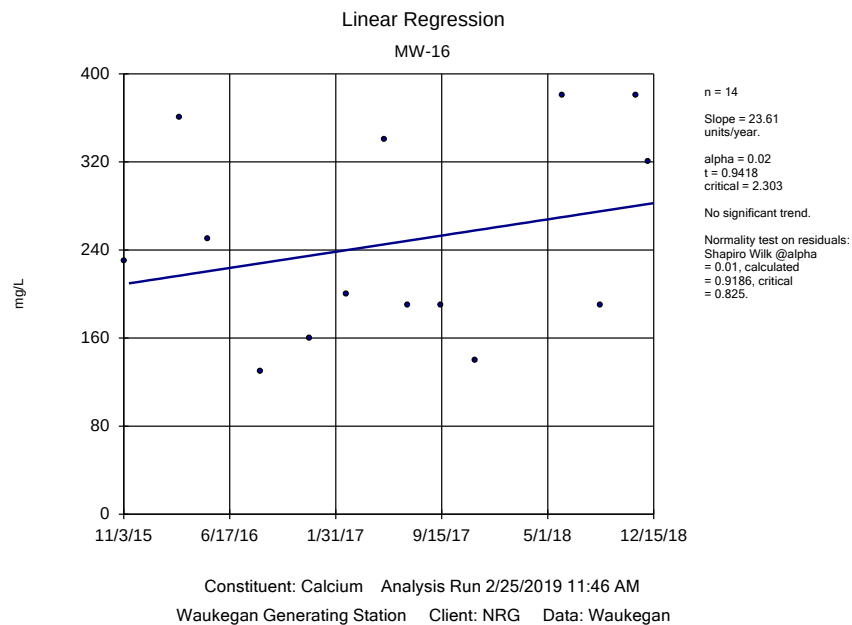
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

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

ATTACHMENT 3

Trend Analyses for Calcium, TDS and pH – MW-16



Linear Regression

Constituent: Calcium, pH, Total Dissolved Solids Analysis Run 2/25/2019 11:48 AM

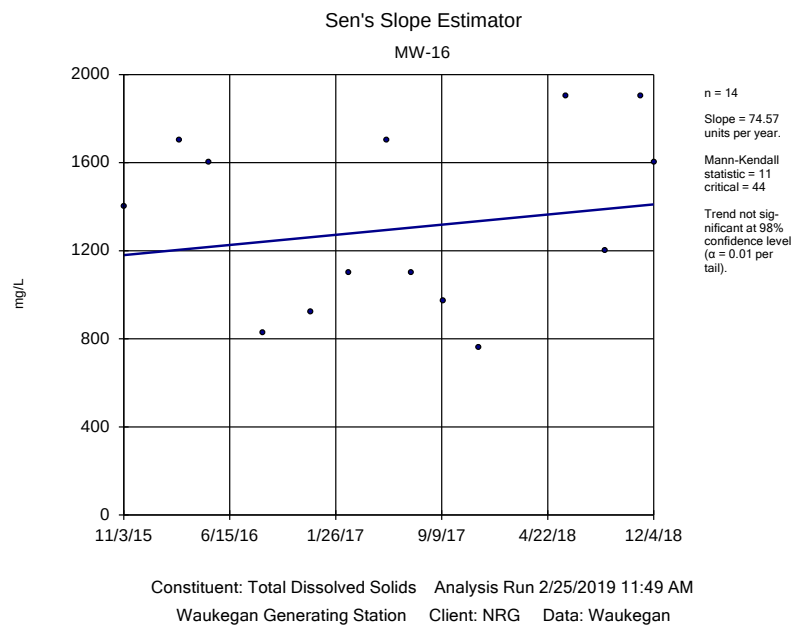
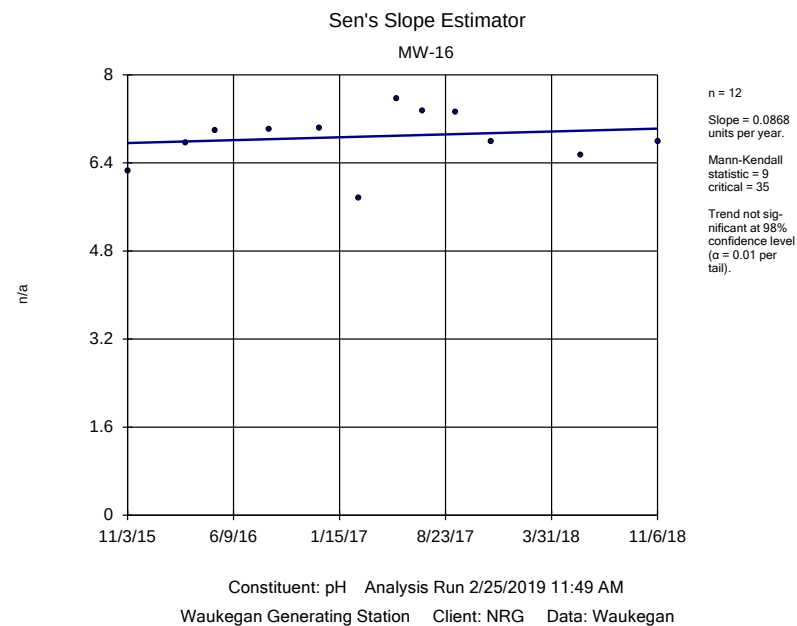
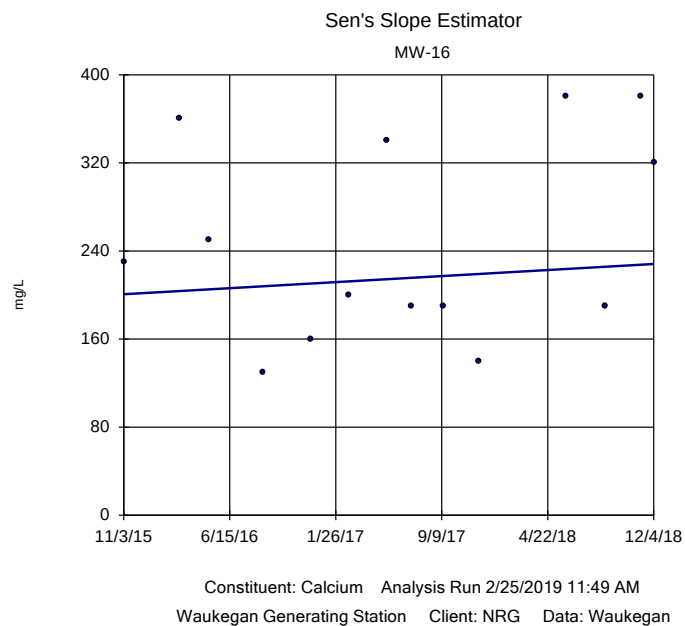
Waukegan Generating Station Client: NRG Data: Waukegan

	MW-16	MW-16	MW-16
11/3/2015	230	6.24	1400
3/2/2016	360	6.76	1700
5/2/2016	250	6.99	1600
8/24/2016	130	7	830
12/5/2016	160	7.03	920
2/24/2017	200	5.76	1100
5/15/2017		7.57	
5/16/2017	340		1700
7/6/2017	190	7.35	1100
9/13/2017	190	7.33	970
11/27/2017	140	6.78	760
6/1/2018	380	6.53	1900
8/22/2018	190		1200
11/6/2018	380	6.78	1900
12/4/2018	320		1600

Trend Test MW-16 Ca, TDS, pH

Waukegan Generating Station Client: NRG Data: Waukegan Printed 2/25/2019, 11:48 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-16	23.61	0.9418	2.303	No	14	0	Yes	no	0.02	Param.
pH (n/a)	MW-16	0.07597	0.4404	2.359	No	12	0	Yes	no	0.02	Param.
Total Dissolved Solids (mg/L)	MW-16	74.94	0.6682	2.303	No	14	0	Yes	no	0.02	Param.



Sen's Slope Estimator

Constituent: Calcium, pH, Total Dissolved Solids Analysis Run 2/25/2019 11:50 AM

Waukegan Generating Station Client: NRG Data: Waukegan

	MW-16	MW-16	MW-16
11/3/2015	230	6.24	1400
3/2/2016	360	6.76	1700
5/2/2016	250	6.99	1600
8/24/2016	130	7	830
12/5/2016	160	7.03	920
2/24/2017	200	5.76	1100
5/15/2017		7.57	
5/16/2017	340		1700
7/6/2017	190	7.35	1100
9/13/2017	190	7.33	970
11/27/2017	140	6.78	760
6/1/2018	380	6.53	1900
8/22/2018	190		1200
11/6/2018	380	6.78	1900
12/4/2018	320		1600

Trend Test MW-16 Ca, TDS, pH

Waukegan Generating Station Client: NRG Data: Waukegan Printed 2/25/2019, 11:50 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-16	8.892	9	44	No	14	0	n/a	n/a	0.02	NP
pH (n/a)	MW-16	0.0868	9	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-16	74.57	11	44	No	14	0	n/a	n/a	0.02	NP