

## DATA SUMMARY POSTING

Station: Midwest Generation Waukegan Generating Station

Regulated Unit(s): East Pond (IEPA ID No. W0971900021-01)  
West Pond (IEPA ID No. W0971900021-02)

In accordance with the new Ill. Adm. Code Title 35, Part 845: Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments (State CCR Rule) groundwater monitoring was completed during the 3<sup>rd</sup> quarter 2023 which includes the entire list of parameters specified under Section 845.600(a)(1) and (b). Table 1 is a summary table of all available CCR monitoring data to date including any data generated previously as part of the Federal CCR Rule monitoring. In addition, Table 2 provides a summary of turbidity data which was collected as part of State CCR Rule requirements which is a data parameter that was not required under the Federal CCR Rule.

No background statistics or proposed Groundwater Protection Standards are included on these tables. The background statistics and Proposed Groundwater Protection Standards were submitted to Illinois Environmental Protection Agency (EPA) as part of the Application for Initial Operating Permit submitted on October 31, 2021. Upon Illinois EPA approval of the Operating Permit and Proposed Groundwater Protection Standards, the approved comparison values will be included on the tables for subsequent data comparisons/evaluations.





Table 2. Groundwater Turbidity - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Turbidity (NTU)
MW-09	3/3/2021	4.70
	3/30/2021	10.15
	5/6/2021	3.44
	5/27/2021	12.41
	6/18/2021	27.7
	7/8/2021	28.77
	8/19/2021	77.36
	9/29/2021	18.41
	11/4/2021	12.66
	2/10/2022	34.39
	5/24/2022	170.87
	8/23/2022	34.9
	11/7/2022	195.02
	2/14/2023	20.46
	5/9/2023	9.34
8/8/2023	18.85	
MW-11	3/2/2021	2.20
	3/30/2021	6.08
	5/6/2021	2.34
	5/27/2021	2.69
	6/18/2021	13.7
	7/8/2021	4.71
	8/19/2021	139.34
	9/29/2021	402.9
	11/4/2021	152.7
	2/10/2022	13.8
	5/24/2022	2.18
	8/23/2022	3.17
	11/8/2022	7771.57*
	2/14/2023	5.12
	5/9/2023	16.30
8/8/2023	11.59	
MW-14	3/2/2021	2035
	3/30/2021	151.5
	5/6/2021	901.4
	5/27/2021	2385.61
	6/18/2021	69.25
	7/8/2021	73.18
	8/19/2021	77.04
	9/29/2021	8.42
	11/4/2021	7.42
	2/10/2022	81.72
	5/24/2022	43.52
	8/23/2022	24.76
	11/8/2022	311.78
	2/14/2023	660.17
	5/9/2023	16.57
8/8/2023	10.85	

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Turbidity (NTU)
MW-01	3/1/2021	0.59
	3/30/2021	5.72
	5/5/2021	1.42
	5/27/2021	2.02
	6/18/2021	2.33
	7/8/2021	3.60
	8/18/2021	2.33
	9/29/2021	3.03
	11/3/2021	3.05
	2/8/2022	4.60
	5/23/2022	2.92
	8/22/2022	1.31
	11/7/2022	41.21
	2/13/2023	2.90
	5/8/2023	3.21
8/7/2023	3.15	
MW-02	3/1/2021	0.69
	3/30/2021	5.66
	5/5/2021	1.65
	5/27/2021	2.95
	6/18/2021	2.71
	7/8/2021	4.20
	8/18/2021	9.03
	9/29/2021	3.42
	11/3/2021	4.05
	2/8/2022	13.4
	5/23/2022	30.54
	8/22/2022	25.43
	11/7/2022	23.82
	2/13/2023	5.25
	5/8/2023	14.43
8/7/2023	2.32	
MW-03	3/1/2021	0.75
	3/30/2021	5.73
	5/5/2021	1.71
	5/27/2021	2.02
	6/18/2021	2.56
	7/8/2021	3.74
	8/18/2021	2.60
	9/29/2021	2.82
	11/3/2021	3.26
	2/8/2022	8.27
	5/23/2022	4.11
	8/22/2022	1.91
	11/7/2022	2.27
	2/13/2023	2.86
	5/8/2023	3.61
8/7/2023	2.68	

Table 2. Groundwater Turbidity - Midwest Generation, LLC, Waukegan Station, Waukegan, IL.

Well	Date	Turbidity (NTU)
MW-04	3/1/2021	1.30
	3/30/2021	6.21
	5/5/2021	1.77
	5/27/2021	2.73
	6/18/2021	3.69
	7/8/2021	5.36
	8/18/2021	40.61
	9/29/2021	3.48
	11/3/2021	4.26
	2/8/2022	13.32
	5/23/2022	28.94
	8/22/2022	2.57
	11/7/2022	41.15
	2/13/2023	3.76
	5/9/2023	15.03
8/8/2023	2.54	
MW-16	3/1/2021	0.77
	3/30/2021	6.07
	5/6/2021	1.63
	5/27/2021	2.00
	6/18/2021	2.59
	7/8/2021	3.58
	8/18/2021	3.22
	9/29/2021	6.05
	11/4/2021	4.00
	2/8/2022	21.6
	5/23/2022	11.75
	8/22/2022	3.54
	11/7/2022	42.55
	2/13/2023	32.31
	5/9/2023	2.95
8/8/2023	2.81	

\* - MW-11 November 2022 turbidity is a field recording error.



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Richard Gnat  
KPRG and Associates, Inc.  
14665 West Lisbon Road,  
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Brookfield, Wisconsin 53005

Generated 8/29/2023 11:39:35 AM

## JOB DESCRIPTION

Waukegan CCR

## JOB NUMBER

500-237767-1

# Eurofins Chicago

## Job Notes

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

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

## Authorization



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Authorized for release by  
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# Case Narrative

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

Job ID: 500-237767-1

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**Job ID: 500-237767-1**

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**Laboratory: Eurofins Chicago**

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**Narrative**

**Job Narrative  
500-237767-1**

**Receipt**

The samples were received on 8/8/2023 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 0.7° C and 3.2° C.

**Metals**

Method 6020A: The continuing calibration verification (CCV) at line 27 in AD batch 729191 recovered above the upper control limit for B-. An initial and closing CCV were both within range as well as all other batch QC. The samples associated with this CCV were also run in three different analytical batches and all have corresponding result. The data have been qualified and reported.

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

**General Chemistry**

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



# Method Summary

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

Job ID: 500-237767-1

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

#### Protocol References:

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

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

#### Laboratory References:

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

# Sample Summary

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

Job ID: 500-237767-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-237767-1	MW-01	Water	08/07/23 13:13	08/08/23 10:10
500-237767-2	MW-02	Water	08/07/23 14:23	08/08/23 10:10
500-237767-3	MW-03	Water	08/07/23 15:22	08/08/23 10:10
500-237767-4	Duplicate	Water	08/07/23 00:00	08/08/23 10:10
500-237767-5	MW-04	Water	08/08/23 13:04	08/09/23 09:30
500-237767-6	MW-09	Water	08/08/23 11:28	08/09/23 09:30
500-237767-7	MW-11	Water	08/08/23 09:15	08/09/23 09:30
500-237767-8	MW-14	Water	08/08/23 10:15	08/09/23 09:30
500-237767-9	MW-16	Water	08/08/23 15:07	08/09/23 09:30

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

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-01**

**Lab Sample ID: 500-237767-1**

Date Collected: 08/07/23 13:13

Matrix: Water

Date Received: 08/08/23 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:16	1
<b>Arsenic</b>	<b>0.022</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:16	1
<b>Barium</b>	<b>0.027</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:16	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:16	1
<b>Boron</b>	<b>1.8</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:06	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:16	1
<b>Calcium</b>	<b>46</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:06	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:16	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:16	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:16	1
Lithium	<0.010		0.010		mg/L		08/16/23 08:54	08/17/23 15:16	1
<b>Molybdenum</b>	<b>0.020</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:16	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:16	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:16	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:15	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>340</b>		10		mg/L			08/08/23 19:03	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>50</b>		4.0		mg/L			08/11/23 12:25	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.40</b>		0.10		mg/L			08/16/23 10:42	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>150</b>		50		mg/L			08/15/23 14:13	10

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-02**  
Date Collected: 08/07/23 14:23  
Date Received: 08/08/23 10:10

**Lab Sample ID: 500-237767-2**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:33	1
<b>Arsenic</b>	<b>0.0089</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:33	1
<b>Barium</b>	<b>0.022</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:33	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:33	1
<b>Boron</b>	<b>3.1</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:09	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:33	1
<b>Calcium</b>	<b>68</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:09	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:33	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:33	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:33	1
Lithium	<0.010		0.010		mg/L		08/16/23 08:54	08/17/23 15:33	1
<b>Molybdenum</b>	<b>0.032</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:33	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:33	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:33	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:17	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>510</b>		10		mg/L			08/08/23 19:05	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>51</b>		4.0		mg/L			08/11/23 12:25	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.40</b>		0.10		mg/L			08/16/23 10:47	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>210</b>		50		mg/L			08/15/23 14:13	10

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-03**

**Lab Sample ID: 500-237767-3**

Date Collected: 08/07/23 15:22

Matrix: Water

Date Received: 08/08/23 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:36	1
<b>Arsenic</b>	<b>0.014</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:36	1
<b>Barium</b>	<b>0.012</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:36	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:36	1
<b>Boron</b>	<b>2.3</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:13	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:36	1
<b>Calcium</b>	<b>45</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:13	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:36	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:36	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:36	1
Lithium	<0.010		0.010		mg/L		08/16/23 08:54	08/17/23 15:36	1
<b>Molybdenum</b>	<b>0.053</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:36	1
<b>Selenium</b>	<b>0.0042</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:36	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:36	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>380</b>		10		mg/L			08/08/23 19:08	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>54</b>		4.0		mg/L			08/11/23 12:26	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.48</b>		0.10		mg/L			08/16/23 10:51	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>130</b>		50		mg/L			08/15/23 14:14	10

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: Duplicate**  
Date Collected: 08/07/23 00:00  
Date Received: 08/08/23 10:10

**Lab Sample ID: 500-237767-4**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:40	1
<b>Arsenic</b>	<b>0.015</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:40	1
<b>Barium</b>	<b>0.011</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:40	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:40	1
<b>Boron</b>	<b>2.4</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:16	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:40	1
<b>Calcium</b>	<b>44</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:16	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:40	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:40	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:40	1
Lithium	<0.010		0.010		mg/L		08/16/23 08:54	08/17/23 15:40	1
<b>Molybdenum</b>	<b>0.054</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:40	1
<b>Selenium</b>	<b>0.0040</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:40	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:40	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:21	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>410</b>		10		mg/L			08/08/23 19:10	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>55</b>		4.0		mg/L			08/11/23 12:43	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.49</b>		0.10		mg/L			08/16/23 10:56	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>130</b>		25		mg/L			08/15/23 14:14	5



# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-04**

**Lab Sample ID: 500-237767-5**

Date Collected: 08/08/23 13:04

Matrix: Water

Date Received: 08/09/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:43	1
<b>Arsenic</b>	<b>0.0088</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:43	1
<b>Barium</b>	<b>0.026</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:43	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:43	1
<b>Boron</b>	<b>2.5</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:20	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:43	1
<b>Calcium</b>	<b>58</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:20	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:43	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:43	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:43	1
Lithium	<0.010		0.010		mg/L		08/16/23 08:54	08/17/23 15:43	1
<b>Molybdenum</b>	<b>0.041</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:43	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:43	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:43	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:23	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>400</b>		10		mg/L			08/09/23 21:49	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>63</b>		4.0		mg/L			08/11/23 12:26	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.40</b>		0.10		mg/L			08/16/23 11:01	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>150</b>		50		mg/L			08/15/23 14:15	10

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-09**

**Lab Sample ID: 500-237767-6**

Date Collected: 08/08/23 11:28

Matrix: Water

Date Received: 08/09/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Arsenic</b>	<b>0.0021</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Barium</b>	<b>0.11</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:47	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Boron</b>	<b>20</b>	<b>^+</b>	0.25		mg/L		08/16/23 08:54	08/23/23 18:23	5
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Calcium</b>	<b>270</b>		1.0		mg/L		08/16/23 08:54	08/23/23 18:23	5
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:47	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:47	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Lithium</b>	<b>0.062</b>		0.010		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Molybdenum</b>	<b>0.35</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:47	1
<b>Selenium</b>	<b>0.022</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:47	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:47	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>1800</b>		10		mg/L			08/09/23 21:51	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>380</b>		20		mg/L			08/11/23 12:27	10
<b>Fluoride (SM 4500 F C)</b>	<b>0.23</b>		0.10		mg/L			08/16/23 11:05	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>510</b>		100		mg/L			08/15/23 13:38	20

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-11**

**Lab Sample ID: 500-237767-7**

Date Collected: 08/08/23 09:15

Matrix: Water

Date Received: 08/09/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:50	1
<b>Arsenic</b>	<b>0.46</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:50	1
<b>Barium</b>	<b>0.059</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:50	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:50	1
<b>Boron</b>	<b>1.2</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:27	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:50	1
<b>Calcium</b>	<b>140</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:27	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:50	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:50	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:50	1
<b>Lithium</b>	<b>0.025</b>		0.010		mg/L		08/16/23 08:54	08/17/23 15:50	1
Molybdenum	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:50	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:50	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:50	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>800</b>		10		mg/L			08/09/23 21:54	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>90</b>		10		mg/L			08/11/23 12:27	5
<b>Fluoride (SM 4500 F C)</b>	<b>0.16</b>		0.10		mg/L			08/16/23 11:10	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>67</b>		10		mg/L			08/15/23 13:39	2

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-14**  
Date Collected: 08/08/23 10:15  
Date Received: 08/09/23 09:30

**Lab Sample ID: 500-237767-8**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:54	1
<b>Arsenic</b>	<b>3.5</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:54	1
<b>Barium</b>	<b>0.048</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:54	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:54	1
<b>Boron</b>	<b>0.48</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:30	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:54	1
<b>Calcium</b>	<b>110</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:30	1
<b>Chromium</b>	<b>0.13</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:54	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:54	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:54	1
<b>Lithium</b>	<b>0.010</b>		0.010		mg/L		08/16/23 08:54	08/17/23 15:54	1
Molybdenum	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:54	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:54	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:54	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:30	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>480</b>		10		mg/L			08/09/23 21:57	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>21</b>		4.0		mg/L			08/11/23 12:27	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.14</b>		0.10		mg/L			08/16/23 11:15	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>23</b>		5.0		mg/L			08/15/23 14:15	1

# Client Sample Results

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

Job ID: 500-237767-1

**Client Sample ID: MW-16**  
Date Collected: 08/08/23 15:07  
Date Received: 08/09/23 09:30

**Lab Sample ID: 500-237767-9**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:57	1
<b>Arsenic</b>	<b>0.0019</b>		0.0010		mg/L		08/16/23 08:54	08/17/23 15:57	1
<b>Barium</b>	<b>0.036</b>		0.0025		mg/L		08/16/23 08:54	08/17/23 15:57	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:57	1
<b>Boron</b>	<b>2.7</b>	<b>^+</b>	0.050		mg/L		08/16/23 08:54	08/23/23 18:40	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:57	1
<b>Calcium</b>	<b>130</b>		0.20		mg/L		08/16/23 08:54	08/23/23 18:40	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:57	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:57	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:57	1
<b>Lithium</b>	<b>0.013</b>		0.010		mg/L		08/16/23 08:54	08/17/23 15:57	1
<b>Molybdenum</b>	<b>0.024</b>		0.0050		mg/L		08/16/23 08:54	08/17/23 15:57	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:57	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:57	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>770</b>		10		mg/L			08/09/23 21:59	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>46</b>		4.0		mg/L			08/11/23 12:27	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.56</b>		0.10		mg/L			08/16/23 11:30	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>310</b>		100		mg/L			08/15/23 14:16	20

# Definitions/Glossary

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

Job ID: 500-237767-1

## Qualifiers

### Metals

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

## Glossary

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

# QC Association Summary

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

Job ID: 500-237767-1

## Metals

### Prep Batch: 728035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total Recoverable	Water	3005A	
500-237767-2	MW-02	Total Recoverable	Water	3005A	
500-237767-3	MW-03	Total Recoverable	Water	3005A	
500-237767-4	Duplicate	Total Recoverable	Water	3005A	
500-237767-5	MW-04	Total Recoverable	Water	3005A	
500-237767-6	MW-09	Total Recoverable	Water	3005A	
500-237767-7	MW-11	Total Recoverable	Water	3005A	
500-237767-8	MW-14	Total Recoverable	Water	3005A	
500-237767-9	MW-16	Total Recoverable	Water	3005A	
MB 500-728035/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-728035/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

### Analysis Batch: 728500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total Recoverable	Water	6020A	728035
500-237767-2	MW-02	Total Recoverable	Water	6020A	728035
500-237767-3	MW-03	Total Recoverable	Water	6020A	728035
500-237767-4	Duplicate	Total Recoverable	Water	6020A	728035
500-237767-5	MW-04	Total Recoverable	Water	6020A	728035
500-237767-6	MW-09	Total Recoverable	Water	6020A	728035
500-237767-7	MW-11	Total Recoverable	Water	6020A	728035
500-237767-8	MW-14	Total Recoverable	Water	6020A	728035
500-237767-9	MW-16	Total Recoverable	Water	6020A	728035
MB 500-728035/1-A	Method Blank	Total Recoverable	Water	6020A	728035
LCS 500-728035/2-A	Lab Control Sample	Total Recoverable	Water	6020A	728035

### Analysis Batch: 729191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total Recoverable	Water	6020A	728035
500-237767-2	MW-02	Total Recoverable	Water	6020A	728035
500-237767-3	MW-03	Total Recoverable	Water	6020A	728035
500-237767-4	Duplicate	Total Recoverable	Water	6020A	728035
500-237767-5	MW-04	Total Recoverable	Water	6020A	728035
500-237767-6	MW-09	Total Recoverable	Water	6020A	728035
500-237767-7	MW-11	Total Recoverable	Water	6020A	728035
500-237767-8	MW-14	Total Recoverable	Water	6020A	728035
500-237767-9	MW-16	Total Recoverable	Water	6020A	728035
MB 500-728035/1-A	Method Blank	Total Recoverable	Water	6020A	728035
LCS 500-728035/2-A	Lab Control Sample	Total Recoverable	Water	6020A	728035

### Prep Batch: 729272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	7470A	
500-237767-2	MW-02	Total/NA	Water	7470A	
500-237767-3	MW-03	Total/NA	Water	7470A	
500-237767-4	Duplicate	Total/NA	Water	7470A	
500-237767-5	MW-04	Total/NA	Water	7470A	
500-237767-6	MW-09	Total/NA	Water	7470A	
500-237767-7	MW-11	Total/NA	Water	7470A	
500-237767-8	MW-14	Total/NA	Water	7470A	
500-237767-9	MW-16	Total/NA	Water	7470A	

Eurofins Chicago

# QC Association Summary

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

Job ID: 500-237767-1

## Metals (Continued)

### Prep Batch: 729272 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-729272/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-729272/13-A	Lab Control Sample	Total/NA	Water	7470A	

### Analysis Batch: 729499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	7470A	729272
500-237767-2	MW-02	Total/NA	Water	7470A	729272
500-237767-3	MW-03	Total/NA	Water	7470A	729272
500-237767-4	Duplicate	Total/NA	Water	7470A	729272
500-237767-5	MW-04	Total/NA	Water	7470A	729272
500-237767-6	MW-09	Total/NA	Water	7470A	729272
500-237767-7	MW-11	Total/NA	Water	7470A	729272
500-237767-8	MW-14	Total/NA	Water	7470A	729272
500-237767-9	MW-16	Total/NA	Water	7470A	729272
MB 500-729272/12-A	Method Blank	Total/NA	Water	7470A	729272
LCS 500-729272/13-A	Lab Control Sample	Total/NA	Water	7470A	729272

## General Chemistry

### Analysis Batch: 726965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	SM 2540C	
500-237767-2	MW-02	Total/NA	Water	SM 2540C	
500-237767-3	MW-03	Total/NA	Water	SM 2540C	
500-237767-4	Duplicate	Total/NA	Water	SM 2540C	
MB 500-726965/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-726965/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 727194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-5	MW-04	Total/NA	Water	SM 2540C	
500-237767-6	MW-09	Total/NA	Water	SM 2540C	
500-237767-7	MW-11	Total/NA	Water	SM 2540C	
500-237767-8	MW-14	Total/NA	Water	SM 2540C	
500-237767-9	MW-16	Total/NA	Water	SM 2540C	
MB 500-727194/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-727194/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 727773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	SM 4500 CI- E	
500-237767-2	MW-02	Total/NA	Water	SM 4500 CI- E	
500-237767-3	MW-03	Total/NA	Water	SM 4500 CI- E	
500-237767-4	Duplicate	Total/NA	Water	SM 4500 CI- E	
500-237767-5	MW-04	Total/NA	Water	SM 4500 CI- E	
500-237767-6	MW-09	Total/NA	Water	SM 4500 CI- E	
500-237767-7	MW-11	Total/NA	Water	SM 4500 CI- E	
500-237767-8	MW-14	Total/NA	Water	SM 4500 CI- E	
500-237767-9	MW-16	Total/NA	Water	SM 4500 CI- E	
MB 500-727773/4	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 500-727773/5	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	

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# QC Association Summary

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

Job ID: 500-237767-1

## General Chemistry

### Analysis Batch: 727914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-237767-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-237767-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-237767-4	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-237767-5	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-237767-6	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-237767-7	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-237767-8	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-237767-9	MW-16	Total/NA	Water	SM 4500 SO4 E	
LB3 500-727914/69	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MB 500-727914/16	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MB 500-727914/53	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-727914/17	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 500-727914/54	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-237767-8 MS	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-237767-8 MSD	MW-14	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 728112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	SM 4500 F C	
500-237767-2	MW-02	Total/NA	Water	SM 4500 F C	
500-237767-3	MW-03	Total/NA	Water	SM 4500 F C	
500-237767-4	Duplicate	Total/NA	Water	SM 4500 F C	
500-237767-5	MW-04	Total/NA	Water	SM 4500 F C	
500-237767-6	MW-09	Total/NA	Water	SM 4500 F C	
500-237767-7	MW-11	Total/NA	Water	SM 4500 F C	
500-237767-8	MW-14	Total/NA	Water	SM 4500 F C	
500-237767-9	MW-16	Total/NA	Water	SM 4500 F C	
MB 500-728112/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-728112/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

# QC Sample Results

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

Job ID: 500-237767-1

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

**Lab Sample ID: MB 500-728035/1-A**  
**Matrix: Water**  
**Analysis Batch: 728500**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 728035**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		08/16/23 08:54	08/17/23 15:26	1
Arsenic	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:26	1
Barium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:26	1
Beryllium	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:26	1
Cadmium	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:26	1
Chromium	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:26	1
Cobalt	<0.0010		0.0010		mg/L		08/16/23 08:54	08/17/23 15:26	1
Lead	<0.00050		0.00050		mg/L		08/16/23 08:54	08/17/23 15:26	1
Lithium	<0.010		0.010		mg/L		08/16/23 08:54	08/17/23 15:26	1
Molybdenum	<0.0050		0.0050		mg/L		08/16/23 08:54	08/17/23 15:26	1
Selenium	<0.0025		0.0025		mg/L		08/16/23 08:54	08/17/23 15:26	1
Thallium	<0.0020		0.0020		mg/L		08/16/23 08:54	08/17/23 15:26	1

**Lab Sample ID: MB 500-728035/1-A**  
**Matrix: Water**  
**Analysis Batch: 729191**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 728035**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050	^+	0.050		mg/L		08/16/23 08:54	08/23/23 17:59	1
Calcium	<0.20		0.20		mg/L		08/16/23 08:54	08/23/23 17:59	1

**Lab Sample ID: LCS 500-728035/2-A**  
**Matrix: Water**  
**Analysis Batch: 728500**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 728035**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.100	0.0864		mg/L		86	80 - 120
Barium	2.00	1.98		mg/L		99	80 - 120
Beryllium	0.0500	0.0451		mg/L		90	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Chromium	0.200	0.206		mg/L		103	80 - 120
Cobalt	0.500	0.515		mg/L		103	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Lithium	0.500	0.480		mg/L		96	80 - 120
Molybdenum	1.00	0.956		mg/L		96	80 - 120
Selenium	0.100	0.0958		mg/L		96	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

**Lab Sample ID: LCS 500-728035/2-A**  
**Matrix: Water**  
**Analysis Batch: 729191**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 728035**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	10.0	9.80		mg/L		98	80 - 120

# QC Sample Results

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

Job ID: 500-237767-1

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-729272/12-A  
Matrix: Water  
Analysis Batch: 729499

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 729272

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/24/23 12:49	08/25/23 09:11	1

Lab Sample ID: LCS 500-729272/13-A  
Matrix: Water  
Analysis Batch: 729499

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 729272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00207		mg/L		103	80 - 120

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

Lab Sample ID: MB 500-726965/1  
Matrix: Water  
Analysis Batch: 726965

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/08/23 18:27	1

Lab Sample ID: LCS 500-726965/2  
Matrix: Water  
Analysis Batch: 726965

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	240		mg/L		96	80 - 120

Lab Sample ID: MB 500-727194/1  
Matrix: Water  
Analysis Batch: 727194

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/09/23 21:08	1

Lab Sample ID: LCS 500-727194/2  
Matrix: Water  
Analysis Batch: 727194

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	268		mg/L		107	80 - 120

## Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-727773/4  
Matrix: Water  
Analysis Batch: 727773

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			08/11/23 12:22	1

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# QC Sample Results

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

Job ID: 500-237767-1

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

Lab Sample ID: LCS 500-727773/5  
Matrix: Water  
Analysis Batch: 727773

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.2		mg/L		101	85 - 115

## Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-728112/3  
Matrix: Water  
Analysis Batch: 728112

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			08/16/23 09:39	1

Lab Sample ID: LCS 500-728112/4  
Matrix: Water  
Analysis Batch: 728112

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

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

## Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: LB3 500-727914/69  
Matrix: Water  
Analysis Batch: 727914

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

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			08/15/23 14:19	1

Lab Sample ID: MB 500-727914/16  
Matrix: Water  
Analysis Batch: 727914

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			08/15/23 13:31	1

Lab Sample ID: MB 500-727914/53  
Matrix: Water  
Analysis Batch: 727914

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			08/15/23 14:15	1

Lab Sample ID: LCS 500-727914/17  
Matrix: Water  
Analysis Batch: 727914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	21.0		mg/L		105	88 - 123

# QC Sample Results

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

Job ID: 500-237767-1

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

**Lab Sample ID: LCS 500-727914/54**  
**Matrix: Water**  
**Analysis Batch: 727914**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	20.9		mg/L		105	88 - 123

**Lab Sample ID: 500-237767-8 MS**  
**Matrix: Water**  
**Analysis Batch: 727914**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	23		20.0	43.2		mg/L		103	75 - 125

**Lab Sample ID: 500-237767-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 727914**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	23		20.0	42.2		mg/L		98	75 - 125	2	20









ORIGIN ID:FEPA (262) 278-1621

KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

WESTMONT, IL 60559  
UNITED STATES US

SHIP DATE: 08AUG23  
ACTWTG: 27.00 LB  
CAD: 6994083/SSFE2422  
DIMS: 19x13x15 IN

BILL THIRD PARTY

TO

**EUROFINS INC**  
**2417 BOND ST**

**UNIVERSITY PARK IL 60484**

(708) 634-5200  
INU: PO:

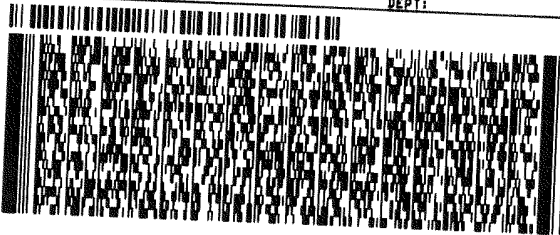
REF:

DEPT:

500-237767 Waybl



Part # 156297316-57770-09EXP 01/24



2 of 5

MPS# 7822 3499 2465  
0263

Mstr# 7822 3499 2454

**79 JOTA**

0201

**WED - 09 AUG 10:30A**  
**PRIORITY OVERNIGHT**

AHS  
60484

IL-US ORD



ORIGIN ID:FEPA (262) 278-1621

KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

WESTMONT, IL 60559  
UNITED STATES US

SHIP DATE: 08AUG23  
ACTWTG: 65.50 LB  
CAD: 6994083/SSFE2422  
DIMS: 25x14x14 IN

BILL THIRD PARTY

TO

**EUROFINS INC**  
**2417 BOND ST**

**UNIVERSITY PARK IL 60484**

(708) 634-5200  
INU: PO:

REF:

DEPT:



5 of 5

MPS# 7822 3499 2498  
0263

Mstr# 7822 3499 2454

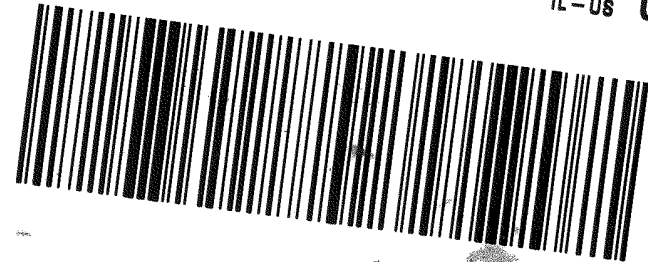
**79 JOTA**

0201

**WED - 09 AUG 10:30A**  
**PRIORITY OVERNIGHT**

60484

IL-US ORD



Part # 156297316-57770-09EXP 01/24

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-237767-1

**Login Number: 237767**

**List Number: 1**

**Creator: Scott, Sherri L**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5,0.7,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Lab Chronicle

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

Job ID: 500-237767-1

**Client Sample ID: MW-01**  
**Date Collected: 08/07/23 13:13**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:16
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:06
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:15
Total/NA	Analysis	SM 2540C		1	726965	CLB	EET CHI	08/08/23 19:03
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:25
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 10:42
Total/NA	Analysis	SM 4500 SO4 E		10	727914	MM	EET CHI	08/15/23 14:13

**Client Sample ID: MW-02**  
**Date Collected: 08/07/23 14:23**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:33
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:09
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:17
Total/NA	Analysis	SM 2540C		1	726965	CLB	EET CHI	08/08/23 19:05
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:25
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 10:47
Total/NA	Analysis	SM 4500 SO4 E		10	727914	MM	EET CHI	08/15/23 14:13

**Client Sample ID: MW-03**  
**Date Collected: 08/07/23 15:22**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:36
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:13
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:19
Total/NA	Analysis	SM 2540C		1	726965	CLB	EET CHI	08/08/23 19:08
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:26
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 10:51
Total/NA	Analysis	SM 4500 SO4 E		10	727914	MM	EET CHI	08/15/23 14:14

# Lab Chronicle

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

Job ID: 500-237767-1

**Client Sample ID: Duplicate**  
**Date Collected: 08/07/23 00:00**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:40
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:16
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:21
Total/NA	Analysis	SM 2540C		1	726965	CLB	EET CHI	08/08/23 19:10
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:43
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 10:56
Total/NA	Analysis	SM 4500 SO4 E		5	727914	MM	EET CHI	08/15/23 14:14

**Client Sample ID: MW-04**  
**Date Collected: 08/08/23 13:04**  
**Date Received: 08/09/23 09:30**

**Lab Sample ID: 500-237767-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:43
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:20
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:23
Total/NA	Analysis	SM 2540C		1	727194	CLB	EET CHI	08/09/23 21:49
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:26
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 11:01
Total/NA	Analysis	SM 4500 SO4 E		10	727914	MM	EET CHI	08/15/23 14:15

**Client Sample ID: MW-09**  
**Date Collected: 08/08/23 11:28**  
**Date Received: 08/09/23 09:30**

**Lab Sample ID: 500-237767-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:47
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		5	729191	EH	EET CHI	08/23/23 18:23
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:25
Total/NA	Analysis	SM 2540C		1	727194	CLB	EET CHI	08/09/23 21:51
Total/NA	Analysis	SM 4500 CI- E		10	727773	MM	EET CHI	08/11/23 12:27
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 11:05
Total/NA	Analysis	SM 4500 SO4 E		20	727914	MM	EET CHI	08/15/23 13:38

# Lab Chronicle

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

Job ID: 500-237767-1

**Client Sample ID: MW-11**

**Date Collected: 08/08/23 09:15**

**Date Received: 08/09/23 09:30**

**Lab Sample ID: 500-237767-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:50
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:27
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:28
Total/NA	Analysis	SM 2540C		1	727194	CLB	EET CHI	08/09/23 21:54
Total/NA	Analysis	SM 4500 CI- E		5	727773	MM	EET CHI	08/11/23 12:27
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 11:10
Total/NA	Analysis	SM 4500 SO4 E		2	727914	MM	EET CHI	08/15/23 13:39

**Client Sample ID: MW-14**

**Date Collected: 08/08/23 10:15**

**Date Received: 08/09/23 09:30**

**Lab Sample ID: 500-237767-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:54
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:30
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:30
Total/NA	Analysis	SM 2540C		1	727194	CLB	EET CHI	08/09/23 21:57
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:27
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 11:15
Total/NA	Analysis	SM 4500 SO4 E		1	727914	MM	EET CHI	08/15/23 14:15

**Client Sample ID: MW-16**

**Date Collected: 08/08/23 15:07**

**Date Received: 08/09/23 09:30**

**Lab Sample ID: 500-237767-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	728500	PFK	EET CHI	08/17/23 15:57
Total Recoverable	Prep	3005A			728035	BDE	EET CHI	08/16/23 08:54 - 08/16/23 09:24 <sup>1</sup>
Total Recoverable	Analysis	6020A		1	729191	EH	EET CHI	08/23/23 18:40
Total/NA	Prep	7470A			729272	SS	EET CHI	08/24/23 12:49 - 08/24/23 14:49 <sup>1</sup>
Total/NA	Analysis	7470A		1	729499	MJG	EET CHI	08/25/23 09:36
Total/NA	Analysis	SM 2540C		1	727194	CLB	EET CHI	08/09/23 21:59
Total/NA	Analysis	SM 4500 CI- E		2	727773	MM	EET CHI	08/11/23 12:27
Total/NA	Analysis	SM 4500 F C		1	728112	EH	EET CHI	08/16/23 11:30
Total/NA	Analysis	SM 4500 SO4 E		20	727914	MM	EET CHI	08/15/23 14:16

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

# Lab Chronicle

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

Job ID: 500-237767-1

**Laboratory References:**

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

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# Accreditation/Certification Summary

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

Job ID: 500-237767-1

## Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

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# ANALYTICAL REPORT

## PREPARED FOR

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

Generated 9/7/2023 8:11:00 AM

## JOB DESCRIPTION

Waukegan CCR (RAD)

## JOB NUMBER

500-237767-2



# Eurofins Chicago

## Job Notes

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

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

## Authorization



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Authorized for release by  
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# Case Narrative

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

Job ID: 500-237767-2

**Job ID: 500-237767-2**

**Laboratory: Eurofins Chicago**

## Narrative

### Job Narrative 500-237767-2

#### Receipt

The samples were received on 8/8/2023 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 0.7° C and 3.2° C.

#### RAD

Method 903.0: Radium-226 prep batch 160-623799:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-01 (500-237767-1), MW-02 (500-237767-2), MW-03 (500-237767-3), Duplicate (500-237767-4), MW-04 (500-237767-5), MW-09 (500-237767-6), MW-11 (500-237767-7), MW-14 (500-237767-8), MW-16 (500-237767-9), (LCS 160-623799/2-A), (MB 160-623799/1-A) and (500-237767-E-1-C DU)

Method 904.0: Radium-228 prep batch 160-623802:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-01 (500-237767-1), MW-02 (500-237767-2), MW-03 (500-237767-3), Duplicate (500-237767-4), MW-04 (500-237767-5), MW-09 (500-237767-6), MW-11 (500-237767-7), MW-14 (500-237767-8), MW-16 (500-237767-9), (LCS 160-623802/2-A), (MB 160-623802/1-A) and (500-237767-E-1-D DU)

Method PrecSep\_0:

Method PrecSep\_0:

Method PrecSep-21:

Method PrecSep-21:

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

# Method Summary

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

Job ID: 500-237767-2

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

#### Protocol References:

EPA = US Environmental Protection Agency

None = None

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

#### Laboratory References:

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

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# Sample Summary

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

Job ID: 500-237767-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-237767-1	MW-01	Water	08/07/23 13:13	08/08/23 10:10
500-237767-2	MW-02	Water	08/07/23 14:23	08/08/23 10:10
500-237767-3	MW-03	Water	08/07/23 15:22	08/08/23 10:10
500-237767-4	Duplicate	Water	08/07/23 00:00	08/08/23 10:10
500-237767-5	MW-04	Water	08/08/23 13:04	08/09/23 09:30
500-237767-6	MW-09	Water	08/08/23 11:28	08/09/23 09:30
500-237767-7	MW-11	Water	08/08/23 09:15	08/09/23 09:30
500-237767-8	MW-14	Water	08/08/23 10:15	08/09/23 09:30
500-237767-9	MW-16	Water	08/08/23 15:07	08/09/23 09:30

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# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-01**

**Lab Sample ID: 500-237767-1**

Date Collected: 08/07/23 13:13

Matrix: Water

Date Received: 08/08/23 10:10

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.114		0.0790	0.0797	1.00	0.111	pCi/L	08/11/23 10:03	09/05/23 18:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		30 - 110					08/11/23 10:03	09/05/23 18:06	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.474	U	0.272	0.273	1.00	0.474	pCi/L	08/11/23 10:08	08/24/23 11:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.5		30 - 110					08/11/23 10:08	08/24/23 11:35	1
Y Carrier	92.3		30 - 110					08/11/23 10:08	08/24/23 11:35	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.474	U	0.283	0.284	5.00	0.474	pCi/L		09/05/23 11:37	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-02**

**Lab Sample ID: 500-237767-2**

Date Collected: 08/07/23 14:23

Matrix: Water

Date Received: 08/08/23 10:10

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.121	U	0.0729	0.0731	1.00	0.121	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.588	U	0.318	0.318	1.00	0.588	pCi/L	08/11/23 10:08	08/24/23 11:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.3		30 - 110					08/11/23 10:08	08/24/23 11:35	1
Y Carrier	88.6		30 - 110					08/11/23 10:08	08/24/23 11:35	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.588	U	0.326	0.326	5.00	0.588	pCi/L		09/05/23 11:37	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-03**

**Lab Sample ID: 500-237767-3**

Date Collected: 08/07/23 15:22

Matrix: Water

Date Received: 08/08/23 10:10

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.178		0.0950	0.0963	1.00	0.123	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.627	U	0.370	0.370	1.00	0.627	pCi/L	08/11/23 10:08	08/24/23 11:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		30 - 110					08/11/23 10:08	08/24/23 11:35	1
Y Carrier	87.9		30 - 110					08/11/23 10:08	08/24/23 11:35	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.627	U	0.382	0.382	5.00	0.627	pCi/L		09/06/23 15:22	1



# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: Duplicate**  
Date Collected: 08/07/23 00:00  
Date Received: 08/08/23 10:10

**Lab Sample ID: 500-237767-4**  
Matrix: Water

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.120	U	0.0683	0.0684	1.00	0.120	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.643	U	0.408	0.411	1.00	0.643	pCi/L	08/11/23 10:08	08/24/23 11:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		30 - 110					08/11/23 10:08	08/24/23 11:35	1
Y Carrier	92.0		30 - 110					08/11/23 10:08	08/24/23 11:35	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.643	U	0.414	0.417	5.00	0.643	pCi/L		09/06/23 15:22	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-04**

**Lab Sample ID: 500-237767-5**

Date Collected: 08/08/23 13:04

Matrix: Water

Date Received: 08/09/23 09:30

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>0.168</b>		0.0881	0.0894	1.00	0.107	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>0.639</b>		0.406	0.410	1.00	0.604	pCi/L	08/11/23 10:08	08/24/23 11:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		30 - 110					08/11/23 10:08	08/24/23 11:35	1
Y Carrier	90.5		30 - 110					08/11/23 10:08	08/24/23 11:35	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>0.807</b>		0.415	0.420	5.00	0.604	pCi/L		09/06/23 15:22	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-09**

**Lab Sample ID: 500-237767-6**

Date Collected: 08/08/23 11:28

Matrix: Water

Date Received: 08/09/23 09:30

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.239		0.107	0.109	1.00	0.123	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.734	U	0.460	0.463	1.00	0.734	pCi/L	08/11/23 10:08	08/24/23 11:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.5		30 - 110					08/11/23 10:08	08/24/23 11:35	1
Y Carrier	92.3		30 - 110					08/11/23 10:08	08/24/23 11:35	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.754		0.472	0.476	5.00	0.734	pCi/L		09/06/23 15:22	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-11**  
Date Collected: 08/08/23 09:15  
Date Received: 08/09/23 09:30

**Lab Sample ID: 500-237767-7**  
Matrix: Water

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-226</b>	<b>0.334</b>		0.126	0.130	1.00	0.133	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium-228</b>	<b>2.03</b>		0.649	0.676	1.00	0.818	pCi/L	08/11/23 10:08	08/24/23 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					08/11/23 10:08	08/24/23 11:36	1
Y Carrier	89.7		30 - 110					08/11/23 10:08	08/24/23 11:36	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Combined Radium 226 + 228</b>	<b>2.37</b>		0.661	0.688	5.00	0.818	pCi/L		09/06/23 15:22	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-14**

**Lab Sample ID: 500-237767-8**

Date Collected: 08/08/23 10:15

Matrix: Water

Date Received: 08/09/23 09:30

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.145	U	0.0992	0.0999	1.00	0.145	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.772	U	0.433	0.433	1.00	0.772	pCi/L	08/11/23 10:08	08/24/23 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		30 - 110					08/11/23 10:08	08/24/23 11:36	1
Y Carrier	91.6		30 - 110					08/11/23 10:08	08/24/23 11:36	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.772	U	0.444	0.444	5.00	0.772	pCi/L		09/06/23 15:22	1

# Client Sample Results

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

Job ID: 500-237767-2

**Client Sample ID: MW-16**

**Lab Sample ID: 500-237767-9**

Date Collected: 08/08/23 15:07

Matrix: Water

Date Received: 08/09/23 09:30

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.100	U	0.0638	0.0640	1.00	0.100	pCi/L	08/11/23 10:03	09/05/23 18:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110					08/11/23 10:03	09/05/23 18:07	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.495	U	0.315	0.317	1.00	0.495	pCi/L	08/11/23 10:08	08/24/23 11:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110					08/11/23 10:08	08/24/23 11:36	1
Y Carrier	94.6		30 - 110					08/11/23 10:08	08/24/23 11:36	1

**Method: TAL-STL Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	<0.495	U	0.321	0.323	5.00	0.495	pCi/L		09/06/23 15:22	1

# Definitions/Glossary

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

Job ID: 500-237767-2

## Qualifiers

### Rad

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

## Glossary

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

# QC Association Summary

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

Job ID: 500-237767-2

## Rad

### Prep Batch: 623799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	PrecSep-21	
500-237767-2	MW-02	Total/NA	Water	PrecSep-21	
500-237767-3	MW-03	Total/NA	Water	PrecSep-21	
500-237767-4	Duplicate	Total/NA	Water	PrecSep-21	
500-237767-5	MW-04	Total/NA	Water	PrecSep-21	
500-237767-6	MW-09	Total/NA	Water	PrecSep-21	
500-237767-7	MW-11	Total/NA	Water	PrecSep-21	
500-237767-8	MW-14	Total/NA	Water	PrecSep-21	
500-237767-9	MW-16	Total/NA	Water	PrecSep-21	
MB 160-623799/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-623799/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-237767-1 DU	MW-01	Total/NA	Water	PrecSep-21	

### Prep Batch: 623802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-237767-1	MW-01	Total/NA	Water	PrecSep_0	
500-237767-2	MW-02	Total/NA	Water	PrecSep_0	
500-237767-3	MW-03	Total/NA	Water	PrecSep_0	
500-237767-4	Duplicate	Total/NA	Water	PrecSep_0	
500-237767-5	MW-04	Total/NA	Water	PrecSep_0	
500-237767-6	MW-09	Total/NA	Water	PrecSep_0	
500-237767-7	MW-11	Total/NA	Water	PrecSep_0	
500-237767-8	MW-14	Total/NA	Water	PrecSep_0	
500-237767-9	MW-16	Total/NA	Water	PrecSep_0	
MB 160-623802/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-623802/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-237767-1 DU	MW-01	Total/NA	Water	PrecSep_0	



# QC Sample Results

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

Job ID: 500-237767-2

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

**Lab Sample ID: MB 160-623799/1-A**  
**Matrix: Water**  
**Analysis Batch: 626664**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 623799**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.116	U	0.0419	0.0421	1.00	0.116	pCi/L	08/11/23 10:03	09/05/23 18:05	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	88.2		30 - 110			08/11/23 10:03	09/05/23 18:05	1		

**Lab Sample ID: LCS 160-623799/2-A**  
**Matrix: Water**  
**Analysis Batch: 626664**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 623799**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	9.810		1.03	1.00	0.125	pCi/L	87	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	90.0		30 - 110						

**Lab Sample ID: 500-237767-1 DU**  
**Matrix: Water**  
**Analysis Batch: 626664**

**Client Sample ID: MW-01**  
**Prep Type: Total/NA**  
**Prep Batch: 623799**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.114		<0.135	U	0.0804	1.00	0.135	pCi/L	0.35	1
Carrier	DU %Yield	DU Qualifier	Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	87.3		30 - 110							

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

**Lab Sample ID: MB 160-623802/1-A**  
**Matrix: Water**  
**Analysis Batch: 625438**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 623802**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.8955		0.390	0.399	1.00	0.517	pCi/L	08/11/23 10:08	08/24/23 11:27	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
	%Yield	Qualifier								
Ba Carrier	88.2		30 - 110			08/11/23 10:08	08/24/23 11:27	1		
Y Carrier	89.7		30 - 110			08/11/23 10:08	08/24/23 11:27	1		

# QC Sample Results

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

Job ID: 500-237767-2

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

**Lab Sample ID: LCS 160-623802/2-A**  
**Matrix: Water**  
**Analysis Batch: 625438**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 623802**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits																	
Radium-228	7.93	9.393		1.26	1.00	0.482	pCi/L	118	75 - 125																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">LCS</th> <th colspan="2">LCS</th> </tr> <tr> <th>Carrier</th> <th>%Yield</th> <th>Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>90.0</td> <td></td> <td>30 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>92.3</td> <td></td> <td>30 - 110</td> </tr> </tbody> </table>											LCS		LCS		Carrier	%Yield	Qualifier	Limits	Ba Carrier	90.0		30 - 110	Y Carrier	92.3		30 - 110
LCS		LCS																								
Carrier	%Yield	Qualifier	Limits																							
Ba Carrier	90.0		30 - 110																							
Y Carrier	92.3		30 - 110																							

**Lab Sample ID: 500-237767-1 DU**  
**Matrix: Water**  
**Analysis Batch: 625439**

**Client Sample ID: MW-01**  
**Prep Type: Total/NA**  
**Prep Batch: 623802**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit																
										1																
Radium-228	<0.474	U	0.5955		0.385	1.00	0.569	pCi/L	0.69	1																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">DU</th> <th colspan="2">DU</th> </tr> <tr> <th>Carrier</th> <th>%Yield</th> <th>Qualifier</th> <th>Limits</th> </tr> </thead> <tbody> <tr> <td>Ba Carrier</td> <td>87.3</td> <td></td> <td>30 - 110</td> </tr> <tr> <td>Y Carrier</td> <td>90.8</td> <td></td> <td>30 - 110</td> </tr> </tbody> </table>											DU		DU		Carrier	%Yield	Qualifier	Limits	Ba Carrier	87.3		30 - 110	Y Carrier	90.8		30 - 110
DU		DU																								
Carrier	%Yield	Qualifier	Limits																							
Ba Carrier	87.3		30 - 110																							
Y Carrier	90.8		30 - 110																							

### Chain of Custody Record

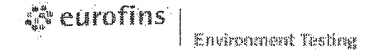
Client Information		Sampler		Lab PM		Carrier Tracking No(s)		COC No				
Client Contact: <b>Michael Dolen</b>		<b>Kaelyn Sperle</b>		<b>Mockler Diana J</b>				500 114454-44027 1				
Company: <b>KPRG and Associates Inc</b>		Phone: <b>262-278-1621</b>		E-Mail: <b>Diana.Mockler@et.eurofinsus.com</b>		State of Origin: <b>IL</b>		Page: <b>1</b> of 1				
Address: <b>14665 West Lisbon Road Suite 1A Brookfield WI 53005</b>		Due Date Requested: <b>Standard</b>		TAT Requested (days): <b>Standard</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Job #: <b>500-237767</b>				
Phone: <b>262-781-0475 (Te)</b>		PO #: <b>4502102435</b>		WFO #:		Field Filtered Sample (Yes or No): <b>903.0, 904.0</b>		Preservation Codes:				
Fmail: <b>kaelyns@kprginc.com</b>		Projec #: <b>50011597</b>		SSGW#:		6010C, 6020A, 7470A		A HCL M Hexane				
Project Name: <b>Waukegan CCR Event Desc. Quarterly Waukegan CCR</b>		Site: <b>Illinois</b>				2540C 4500_F_C, SM4500_CL_E, SM4500_S04_E		B NaOH N None				
						180.1 Turbidity		C Zn Acetate O Ashac				
								D Nitri Acid Q Na2SO3				
								E NaHSO4 R Na2S2O3				
								F MeOH S H2SO4				
								G Amthor T S <sup>o</sup> Doodecal yurate				
								H Ascorbic Acid U Acetone				
								I ce MUA				
								J D Water W pH 4.2				
								K EDTA Y Tnzma				
								L EDA Z other (specify)				
								Other:				
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater)	Field Filtered Sample (Yes or No)				Total Number of Containers	Special Instructions/Note	
						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
1	MW-01	8/7/23	1313	G	Water	N	N	X	X	X	5	
2	MW-02	8/7/23	1423	G	Water	N	N	↓	↓	↓	5	
3	MW-03	8/7/23	1522	G	Water	N	N	↓	↓	↓	5	
	<del>MW-04</del>				Water							
	<del>MW-05</del>				Water							
	<del>MW-06</del>				Water							
	<del>MW-07</del>				Water							
f	Duplicate	8/7/23	-	G	Water	N	N	X	X	X	5	
					Water							
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I II III IV Other (specify)						Special Instructions: QC Requirements						
Empty Kit Relinquished by		Date		Time		Method of Shipment						
Relinquished by: <b>Kaelyn Sperle</b>		Date/Time: <b>8/7/23/1650</b>		Company: <b>KPRG</b>		Received by: <b>FedEx</b>		Date/Time: <b>8/7/23/1650</b>		Company: <b>FedEx</b>		
Relinquished by:		Date/Time:		Company:		Received by: <b>Ali Roots</b>		Date/Time: <b>8/7/23 1010</b>		Company: <b>EDTA</b>		
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:		
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature and Other Remarks		<b>0.8 → 0.5</b>						



**Eurofins Chicago**

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

**Chain of Custody Record**



<b>Client Information</b>		Sampler: <u>Kaelyn Sperte</u>		Lab PM: Mockler, Diana J		Carrier Tracking No(s):		COC No: 500-114454-44027.1	
Client Contact: <u>Mitchel Dulan</u> <u>Kaelyn Sperte</u>		Phone: <u>262-278-1621</u>		E-Mail: <u>Diana.Mockler@et.eurofinsus.com</u>		State of Origin: <u>IL</u>		Page: Page 1 of 1	
Company: <u>KPRG and Associates, Inc.</u>		Due Date Requested: <u>Standard</u>		<b>Analysis Requested</b>		Job # <u>510-232767</u>		Preservation Codes:	
Address: <u>14665 West Lisbon Road, Suite 1A</u>		TAT Requested (days): <u>Standard</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		A - HCL		M - Hexane	
City: <u>Brookfield</u>		PO #: <u>4502102435</u>		WO #: <u>50011597</u>		B - NaOH		N - None	
State, Zip: <u>WI, 53005</u>		Project #: <u>50011597</u>		SSOW#:		C - Zn Acetate		O - AsNaO2	
Phone: <u>262-781-0475(Tel)</u>		Project Name: <u>Waukegan CCR Event Desc: Quarterly Waukegan CCR</u>		Site: <u>Illinois</u>		D - Nitric Acid		P - Na2O4S	
Email: <u>kaelyns@kprginc.com</u>		Sample Date		Sample Time		E - NaHSO4		Q - Na2SO3	
Project Name: <u>Waukegan CCR Event Desc: Quarterly Waukegan CCR</u>		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		F - MeOH		R - Na2S2O3	
Site: <u>Illinois</u>		Preservation Code		Field Filtered Sample (Yes or No)		G - Amchlor		S - H2SO4	
		Sample Date		Sample Time		H - Ascrobic Acid		T - TSP Dodecahydrate	
		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		I - Ice		U - Acetone	
		Preservation Code		Field Filtered Sample (Yes or No)		J - Di Water		V - MCAA	
		Sample Date		Sample Time		K - EDTA		W - pH 4-5	
		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		L - EDTA		Y - Trizma	
		Preservation Code		Field Filtered Sample (Yes or No)		Other:		Z - other (specify)	
		Sample Date		Sample Time		Total Number of Containers		Special Instructions/Note:	
		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		903.0, 904.0			
		Preservation Code		Field Filtered Sample (Yes or No)		6010C, 6020A, 7470A			
		Sample Date		Sample Time		2540C, 4500_F_C, SM4500_CL_E, SM4500_SO4_E			
		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		189.1 - Turbidity			
		Preservation Code		Field Filtered Sample (Yes or No)					
		Sample Date		Sample Time					
		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)					
		Preservation Code		Field Filtered Sample (Yes or No)					

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <u>Kaelyn Sperte</u>	Date/Time: <u>8/8/23/1615</u>	Company: <u>KPRG</u>	Received by: <u>FedEx</u>
Relinquished by:	Date/Time:	Company:	Received by: <u>John Scott</u>
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact:  Yes  No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.0-20.7, 3.6 → 3.2

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ORIGIN ID:FEPA (262) 278-1621  
KPRG AND ASSOCIATES  
414 PLAZA DR STE 106  
WESTMONT, IL 60559  
UNITED STATES US

SHIP DATE: 07AUG23  
ACTWGT: 88.95 LB  
CAD: 6994085/SSFE2422  
DIMS: 24x14x14 IN  
BILL THIRD PARTY

Part # 156297-6986-00100-0000-01/24

TO EUROFINS

2417 BOND ST



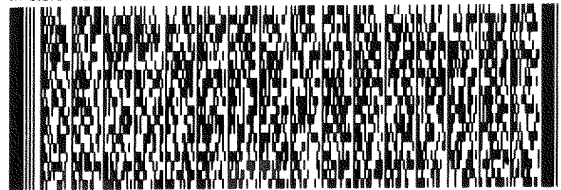
UNIVERSITY PARK IL 60484

500-237767 Waybr

(999) 999-9999  
JHU:  
PD:

REF:

DEPT:



FedEx  
Express



1010527092103227

2 of 2

MPS# 7821 8001 1739  
0263

Mstr# 7821 8001 1728

0201

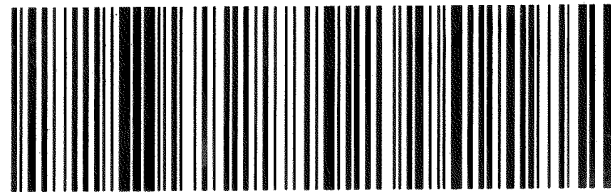
79 JOTA

TUE - 08 AUG 10:30A  
PRIORITY OVERNIGHT

AHS

60484

IL-US ORD



ORIGIN ID:FEPA (262) 278-1621

KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

WESTMONT, IL 60559  
UNITED STATES US

SHIP DATE: 08AUG23  
ACTWTG: 27.00 LB  
CAD: 6994083/SSFE2422  
DIMS: 19x13x15 IN

BILL THIRD PARTY

TO

**EUROFINS INC**  
**2417 BOND ST**

**UNIVERSITY PARK IL 60484**

(708) 634-5200

REF:

500-237767 Waybl

DEPT:



**FedEx**  
Express



441 0927082102281

2 of 5

MPS# 7822 3499 2465  
0263

Mstr# 7822 3499 2454

**79 JOTA**

0201

**WED - 09 AUG 10:30A**  
**PRIORITY OVERNIGHT**

AHS

60484

IL-US ORD



ORIGIN ID:FEPA (262) 278-1621

KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

WESTMONT, IL 60559  
UNITED STATES US

SHIP DATE: 08AUG23  
ACTWTG: 65.50 LB  
CAD: 6994083/SSFE2422  
DIMS: 25x14x14 IN

BILL THIRD PARTY

TO

**EUROFINS INC**  
**2417 BOND ST**

**UNIVERSITY PARK IL 60484**

(708) 634-5200

REF:

DEPT:



**FedEx**  
Express



0927082102281

5 of 5

MPS# 7822 3499 2498  
0263

Mstr# 7822 3499 2454

**79 JOTA**

0201

**WED - 09 AUG 10:30A**  
**PRIORITY OVERNIGHT**

60484

IL-US ORD



Part # 156297316-57740-09EXP 01/24

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**Chain of Custody Record**



Client Information (Sub Contract Lab)				Sampler:	Lab. PM:	Carmer Tracking No(s):		COC No:	
Client Contact:				Mockler, Diana J	Mockler, Diana J	State of Origin:		500-177546.1	
Shipping/Receiving				Diana.Mockler@et.eurofins.com	Diana.Mockler@et.eurofins.com	Illinois		Page: 1 of 1	
Company:				Accreditations Required (See note):		Job #:		500-237767-2	
Test/America Laboratories, Inc.				NELAP - Illinois		Analysis Requested		Preservation Codes:	
Address:				Due Date Requested:	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers
13715 Rider Trail North,				9/12/2023	903.0/PreSep_21 Standard Target List		904.0/PreSep_0 Standard Target List		
City:				TAT Requested (days):	94.0/PreSep_0 Standard Target List		94.0/PreSep_0 Standard Target List		Special Instructions/Note:
Earth City					99.0/PreSep_0 Standard Target List		99.0/PreSep_0 Standard Target List		
State, Zip:				PO #:	100.0/PreSep_0 Standard Target List		100.0/PreSep_0 Standard Target List		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume:
MO, 63045				WO #:	101.0/PreSep_0 Standard Target List		101.0/PreSep_0 Standard Target List		
Phone:				Project #:	102.0/PreSep_0 Standard Target List		102.0/PreSep_0 Standard Target List		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume:
314-298-8566(Tel) 314-298-8757(Fax)				50011597	103.0/PreSep_0 Standard Target List		103.0/PreSep_0 Standard Target List		
Email:				SSOW#:	104.0/PreSep_0 Standard Target List		104.0/PreSep_0 Standard Target List		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume:
Waukegan CCR (RAD)					105.0/PreSep_0 Standard Target List		105.0/PreSep_0 Standard Target List		
Site:				Matrix	106.0/PreSep_0 Standard Target List		106.0/PreSep_0 Standard Target List		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume:
NRG Midwest Generation Waukegan				(Water, Solid, Organic, B1+Tissue, A=Al)	107.0/PreSep_0 Standard Target List		107.0/PreSep_0 Standard Target List		
Sample Identification - Client ID (Lab ID)			Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Special Instructions/Note:		
MW-01 (500-237767-1)			8/7/23	13:13 Central	Water	Water	X	3	
MW-02 (500-237767-2)			8/7/23	14:23 Central	Water	Water	X	3	
MW-03 (500-237767-3)			8/7/23	15:22 Central	Water	Water	X	3	
Duplicate (500-237767-4)			8/7/23	Central	Water	Water	X	3	

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

**Possible Hazard Identification**

Unconfirmed

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

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: *Stephanie Hernandez* Date/Time: *8/10/23 1000* Company: *EEIA*

Relinquished by: *FED EX* Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Custody Seal No.: \_\_\_\_\_

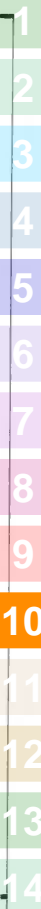
Special Instructions/QC Requirements:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Method of Shipment: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Received by: *Sina Wedding* Date/Time: *08 AUG 09 2023* Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_



# Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Camera Tracking No(s):	GOC No:			
Client Contact: Shipping/Receiving		Phone:	Mockler, Diana J	State of Origin: Illinois	500-177603-1			
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@et.eurofins.com		Page 1 of 1				
Address: 13715 Rider Trail North,		Accreditations Required (See note): NELAP - Illinois		Job #: 500-237767-1				
City: Earth City	Due Date Requested: 8/29/2023	Analysis Requested						
State, Zip: MO, 63045	TAT Requested (days):							
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228 GPC	Total Number of Containers	Special Instructions/Note:
E-mail:	WO #:	Matrix (W=Water, S=Solid, O=Swastool, B=Issue, A=Air)	Sample Type (C=Comp, G=grab)	Sample Time	Sample Date	Preservation Code:		
Project Name: Waukegan CCR	Project #: 50011597							
Site: NRG Midwest Generation Waukegan	SSOW#:							
Sample Identification - Client ID (Lab ID)								
MW-04 (500-237767-5)	8/8/23	13:04 Central	Water	X	X	X	3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;
MW-09 (500-237767-6)	8/8/23	11:28 Central	Water	X	X	X	3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;
MW-11 (500-237767-7)	8/8/23	09:15 Central	Water	X	X	X	3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;
MW-14 (500-237767-8)	8/8/23	10:15 Central	Water	X	X	X	3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;
MW-16 (500-237767-9)	8/8/23	15:07 Central	Water	X	X	X	3	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;
Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/testis/mainx being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.								
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/QC Requirements:		Method of Shipment:		
Unconfirmed		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months		Primary Deliverable Rank: 2		Date:		
Deliverable Requested: I, II, III, IV, Other (specify)		Date/Time: 8/9/23 1450		Received by: Diana Wethington		Date/Time: AUG 10 2023		
Empty Kit Relinquished by:		Date/Time: 8/9/23 1450		Received by:		Date/Time:		
Relinquished by:		Date/Time:		Received by:		Date/Time:		
Relinquished by:		Date/Time:		Received by:		Date/Time:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				





# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-237767-2

**Login Number: 237767**

**List Number: 1**

**Creator: Scott, Sherri L**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5,0.7,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: 500-237767-2

**Login Number: 237767**

**List Number: 2**

**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**

**List Creation: 08/09/23 01:36 PM**

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

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-237767-2

**Login Number: 237767**

**List Number: 3**

**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**

**List Creation: 08/10/23 01:50 PM**

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



# Lab Chronicle

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

Job ID: 500-237767-2

**Client Sample ID: MW-01**  
**Date Collected: 08/07/23 13:13**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626664	SCB	EET SL	09/05/23 18:06
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/05/23 11:37

**Client Sample ID: MW-02**  
**Date Collected: 08/07/23 14:23**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/05/23 11:37

**Client Sample ID: MW-03**  
**Date Collected: 08/07/23 15:22**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

**Client Sample ID: Duplicate**  
**Date Collected: 08/07/23 00:00**  
**Date Received: 08/08/23 10:10**

**Lab Sample ID: 500-237767-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

# Lab Chronicle

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

Job ID: 500-237767-2

## Client Sample ID: MW-04

Date Collected: 08/08/23 13:04

Date Received: 08/09/23 09:30

## Lab Sample ID: 500-237767-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

## Client Sample ID: MW-09

Date Collected: 08/08/23 11:28

Date Received: 08/09/23 09:30

## Lab Sample ID: 500-237767-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:35
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

## Client Sample ID: MW-11

Date Collected: 08/08/23 09:15

Date Received: 08/09/23 09:30

## Lab Sample ID: 500-237767-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625439	SCB	EET SL	08/24/23 11:36
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

## Client Sample ID: MW-14

Date Collected: 08/08/23 10:15

Date Received: 08/09/23 09:30

## Lab Sample ID: 500-237767-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625440	SCB	EET SL	08/24/23 11:36
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

# Lab Chronicle

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

Job ID: 500-237767-2

**Client Sample ID: MW-16**

**Lab Sample ID: 500-237767-9**

**Date Collected: 08/08/23 15:07**

**Matrix: Water**

**Date Received: 08/09/23 09:30**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	PrecSep-21			623799	KAC	EET SL	08/11/23 10:03
Total/NA	Analysis	903.0		1	626662	SCB	EET SL	09/05/23 18:07
Total/NA	Prep	PrecSep_0			623802	KAC	EET SL	08/11/23 10:08
Total/NA	Analysis	904.0		1	625440	SCB	EET SL	08/24/23 11:36
Total/NA	Analysis	Ra226_Ra228		1	626553	EMH	EET SL	09/06/23 15:22

**Laboratory References:**

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



# Accreditation/Certification Summary

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

Job ID: 500-237767-2

## Laboratory: Eurofins St. Louis

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

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

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# Tracer/Carrier Summary

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

Job ID: 500-237767-2

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

Matrix: Water

Prep Type: Total/NA

### Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)
500-237767-1	MW-01	86.5
500-237767-1 DU	MW-01	87.3
500-237767-2	MW-02	85.3
500-237767-3	MW-03	80.6
500-237767-4	Duplicate	86.0
500-237767-5	MW-04	79.4
500-237767-6	MW-09	88.5
500-237767-7	MW-11	84.8
500-237767-8	MW-14	83.8
500-237767-9	MW-16	88.0
LCS 160-623799/2-A	Lab Control Sample	90.0
MB 160-623799/1-A	Method Blank	88.2

#### Tracer/Carrier Legend

Ba = Ba Carrier

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

Matrix: Water

Prep Type: Total/NA

### Percent Yield (Acceptance Limits)

Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-237767-1	MW-01	86.5	92.3
500-237767-1 DU	MW-01	87.3	90.8
500-237767-2	MW-02	85.3	88.6
500-237767-3	MW-03	80.6	87.9
500-237767-4	Duplicate	86.0	92.0
500-237767-5	MW-04	79.4	90.5
500-237767-6	MW-09	88.5	92.3
500-237767-7	MW-11	84.8	89.7
500-237767-8	MW-14	83.8	91.6
500-237767-9	MW-16	88.0	94.6
LCS 160-623802/2-A	Lab Control Sample	90.0	92.3
MB 160-623802/1-A	Method Blank	88.2	89.7

#### Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier



PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	8/7/23
Sample Name	MW-01	Start Time	1253	
Condition of Well	good			
Water Level	22.22	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	clear	
Volume Removed	6 gts	W L at Sample Time	22.25	
Method of Sample	Low-Flow bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	1313	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1257	22.22	8.33	14.4	.3985	5.00	43.1	3.36
1300	-	8.91	14.2	.3896	2.25	-52.4	3.36
1303	-	9.01	14.3	.3880	1.29	-110.4	6.60
1306	-	9.05	14.2	.3869	1.07	-132.4	3.57
1309	22.25	9.08	13.9	.3877	0.92	-141.1	3.15

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	8/7/23
Sample Name	MW-02	Start Time	1353	
Condition of Well	good			
Water Level	22.08	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	clear	
Volume Removed	6 qt.	W L at Sample Time	22.08	
Method of Sample	Low-Flow bladder	Sample Characteristics	clear	
Sample Analysis	CCR, Permit	Sample Time	1423	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1355	22.08	7.23	15.8	.527	7.71	-110.6	2.47
1358	↓	7.54	16.0	.542	5.02	-94.1	2.66
1401		7.57	17.2	.591	4.00	-85.2	2.47
1404		7.44	18.0	.544	4.43	-85.0	2.65
1407		7.82	17.3	.564	4.02	-90.7	3.59
1410		8.18	13.9	.547	1.70	-108.9	3.07
1413		8.21	13.9	.533	1.09	-129.4	2.71
1416		8.20	13.8	.538	0.88	-141.2	2.35
1419		8.17	13.9	.539	0.77	-149.6	2.32

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	8/7/23
Sample Name	MW-03	Start Time	1450	
Condition of Well	good			
Water Level	22.43	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	clear	
Volume Removed	5.5 gts	W L at Sample Time	22.43	
Method of Sample	Low-Flow bladder	Sample Characteristics	clear	
Sample Analysis	CCR, permit	Sample Time	1522	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1509	22.43	7.60	14.6	.3993	4.08	-43.4	3.29
1512	-	7.79	13.4	.3960	1.85	-132.4	2.86
1515	-	7.81	13.5	.3997	1.34	-148.0	2.86
1518	22.43	7.73	13.2	.4186	1.06	-160.7	2.68

SAMPLING NOTES:

CCR duplicate

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	8/8/23
Sample Name	M/W-04	Start Time	1247	
Condition of Well	good			
Water Level	22.27	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	clear	
Volume Removed	5 gts	W L at Sample Time	22.27	
Method of Sample	Low-Flow bladder	Sample Characteristics	clear	
Sample Analysis	Permit, CCR	Sample Time	1304	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1251	22.27	7.98	13.9	.4599	3.21	-33.2	3.68
1254	-	7.90	13.4	.4532	1.77	-86.4	2.96
1257	-	7.92	13.2	.4560	1.39	-105.6	2.92
1300	22.27	7.81	13.2	.4650	1.13	-110.0	2.54

SAMPLING NOTES:

Hooked up well to sample but had to pause for storm for ~30min.  
 Started readings at 1251

Sampler Name and  
 Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	8/8/23
Sample Name	MW-09	Start Time	1104	
Condition of Well	good			
Water Level	10.91	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	Cloudy Brown	
Volume Removed	2.5 qt	W L at Sample Time	10.91	
Method of Sample	Low-Flow bladder	Sample Characteristics	slightly Cloudy	
Sample Analysis	Permit, CCR	Sample Time	1128	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1108		7.11	15.2	1.936	4.92	54.0	157.01
1112		6.96	14.5	2.162	2.20	26.7	114.51
1115		6.96	14.4	2.124	1.59	-9.5	40.10
1118		6.97	14.2	2.067	1.27	-25.5	23.92
1121		6.97	14.4	2.036	1.12	-34.2	19.98
1124		6.98	14.4	1.995	1.03	-39.3	18.85

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	8/8/23
Sample Name	MW-11	Start Time	0900	
Condition of Well	good			
Water Level	6.60	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	clear	
Volume Removed	2.5 gts	W L at Sample Time	6.60	
Method of Sample	Low-Flow bladder	Sample Characteristics	clear	
Sample Analysis	Permit (ELUC), CCR	Sample Time	0915	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
0902	6.60	6.91	16.5	.936	7.40	-87.3	21.94
0905	-	6.94	14.2	1.054	3.19	-131.7	17.96
0908	-	6.95	14.0	1.043	1.80	-144.1	13.43
0911	6.60	6.95	13.8	1.035	1.31	-148.9	11.59

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	8/8/23
Sample Name	MW-14	Start Time	0959	
Condition of Well	good			
Water Level	6.19	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	sl. cloudy	
Volume Removed	3 gts	W L at Sample Time	6.20	
Method of Sample	Low-Flow bladder	Sample Characteristics	sl. cloudy, brown	
Sample Analysis	CCR, permit (ELUC)	Sample Time	1015	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	ph (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1002	6.19	7.14	16.1	.726	4.72	-121.2	55.75
1005	-	7.12	14.9	.742	2.35	-153.1	37.19
1008	-	7.11	14.9	.727	1.42	-162.5	18.25
1011	6.20	7.11	15.1	.713	1.08	-165.0	10.85

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KL5

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	8/8/23
Sample Name	MW-116	Start Time	1445	
Condition of Well				
Water Level	27.85	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow bladder	Purge Characteristics	Clear	
Volume Removed	3 qt	W L at Sample Time	27.86	
Method of Sample	Low-Flow bladder	Sample Characteristics		
Sample Analysis	CCR	Sample Time	1507	
Water Quality Meter	YSI ProDss			

Time	Depth to Water (ft)	pH (SU)	Temp (°C)	Spec. Cond (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1448		7.17	15.1	.818	7.36	-18.5	4.44
1451		7.32	14.5	.778	3.03	-16.2	13.82
1454		7.32	14.4	.776	1.78	-25.8	5.54
1457		7.31	14.4	.777	1.40	-34.8	3.54
1500		7.31	14.5	.776	1.12	-42.1	2.91
1503		7.30	14.5	.778	0.96	-46.5	2.81

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates