

## 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 4<sup>th</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 1. Groundwater Analytical Results - Midwest Generation, LLC, Wauegan Station, Wauegan, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium		
MW-09 up-gradient	11/4/2015	13	210	450	0.14	6.60	370	1700	< 0.003	< 0.001	0.015	^< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.081	< 0.0002	0.260	0.1818	< 0.0025	< 0.002		
	3/2/2016	35	280	720	0.11	7.02	970	2800	< 0.003	0.006	0.005	< 0.001	< 0.0005	0.043	< 0.001	< 0.00061	0.094	< 0.0002	0.51	< 0.36	< 0.002	< 0.002		
	5/3/2016	16	310	620	0.12	7.02	740	2500	< 0.003	0.0014	0.025	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.083	< 0.0002	0.63	< 0.512	0.024	< 0.002		
	8/25/2016	4.5	130	270	0.21	7.13	190	1100	0.0041	0.0024	0.0024	< 0.001	0.0011	0.056	0.0027	0.049	< 0.0002	0.063	< 0.0002	0.482	0.039	< 0.002	< 0.002	
	12/8/2016	15	200	330	0.18	7.01	270	1300	< 0.003	0.004	0.016	< 0.001	0.00052	< 0.0005	< 0.001	< 0.0005	0.077	< 0.0002	0.24	< 0.72	0.038	< 0.002	< 0.002	
	2/23/2017	14	190	290	0.12	7.68	320	1300	< 0.003	0.0027	0.014	< 0.001	< 0.0005	0.059	0.0018	< 0.0005	0.068	< 0.0002	0.26	< 0.461	0.016	< 0.002	< 0.002	
	5/16/2017	27	160	67	0.29	8.15	420	970	< 0.003	< 0.001	0.0094	^< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.045	< 0.0002	0.51	< 0.342	0.0085	< 0.002	< 0.002	
	7/6/2017	21	220	430	0.13	7.18	610	1800	< 0.003	0.002	0.018	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.089	< 0.0002	0.31	< 0.316	0.021	< 0.002	< 0.002	
	9/13/2017	21	250	420	0.14	7.17	520	1800	< 0.003	0.0067	0.019	< 0.001	< 0.0005	0.0052	0.0017	< 0.0005	0.069	< 0.0002	0.33	0.944	0.0041	< 0.002	< 0.002	
	11/29/2017	26	200	390	0.13	7.05	390	1600	< 0.003	0.0017	0.015	^< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.086	< 0.0002	0.47	0.625	0.042	< 0.002	< 0.002	
	5/31/2018	32	200	29	0.1	6.85	490	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2018	30	170	23	0.11	7.33	290	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/15/2019	26	120	260	0.13	7.53	210	1000	< 0.003	< 0.001	0.0073	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.035	< 0.0002	0.54	< 0.433	< 0.0025	< 0.002	< 0.002	
	11/19/2019	22	160	17	0.16	8.04	300	750	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/2020	22	140	9.2	0.18	7.81	360	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/18/2020	28	250	290	0.18	7.43	420	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/6/2021	31	170	35	0.12	7.51	420	910	< 0.003	< 0.001	0.0075	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.04	< 0.0002	0.47	< 0.614	0.023	< 0.002	< 0.002	
	8/19/2021	7.2	150	170	0.13	7.01	210	350	< 0.003	0.0019	0.015	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.066	< 0.0002	0.12	< 0.457	0.071	^< 0.002	< 0.002	
	11/4/2021	10	150	160	0.24	7.07	180	980	< 0.003	0.0026	0.074	^1+ < 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.06	< 0.0002	0.12	< 0.775	0.097	< 0.002	< 0.002	
	2/10/2022	9.5	190	220	0.17	7.11	270	1300	< 0.003	0.015	0.033	< 0.001	0.00076	< 0.0005	0.0038	< 0.0005	0.065	< 0.0002	0.21	< 0.523	0.036	< 0.002	< 0.002	
	5/24/2022	5.3	150	180	0.23	7.15	200	940	< 0.003	0.0019	0.02	^< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.054	< 0.0002	0.18	< 0.444	< 0.0025	< 0.002	< 0.002	
	8/23/2022	12	170	170	0.22	7.04	290	1100	< 0.003	0.0046	0.011	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.048	< 0.0002	0.21	0.487	0.034	< 0.002	< 0.002	
	11/7/2022	6.4	160	200	0.51	6.98	220	1100	< 0.003	0.0083	0.14	^1+ ^< 0.001	< 0.0005	< 0.0005	0.0013	0.0034	0.057	< 0.0002	0.088	2.58	< 0.0025	< 0.002	< 0.002	
	12/21/2022 (R)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/13/2023	B 28	280	220	0.12	6.97	490	1500	< 0.0030	0.0011	0.074	< 0.0010	< 0.00050	< 0.00050	< 0.0010	< 0.00050	0.062	< 0.0020	0.46	1.01	0.029	< 0.0020	< 0.0020	
	5/9/2023	4.7	140	220	0.23	6.98	200	890	< 0.0030	0.0011	0.021	^< 0.0010	< 0.00050	< 0.00050	< 0.0010	< 0.00050	0.045	< 0.0020	0.15	< 0.557	< 0.0025	< 0.0020	< 0.0020	
8/8/2023	^< 2.0	270	380	0.23	6.98	510	1800	< 0.0030	0.0021	0.11	< 0.0010	< 0.00050	< 0.00050	< 0.0010	< 0.00050	0.062	< 0.0020	0.35	0.754	0.022	< 0.0020	< 0.0020		
11/28/2023	2.6	96	170	0.33	7.15	130	750	< 0.0030	0.0071	0.061	^1+ < 0.0010	< 0.00050	< 0.00050	< 0.0010	< 0.00050	0.053	< 0.0020	0.49	0.652	< 0.0025	< 0.0020	< 0.0020		
MW-11 up-gradient	11/5/2015	5.2	140	240	0.13	6.51	190	1100	< 0.003	0.77	0.039	^< 0.001	< 0.0005	< 0.0005	< 0.001	0.001	0.055	< 0.0002	< 0.0050	0.656	< 0.0025	< 0.002	< 0.002	
	3/2/2016	4.0	170	240	0.1	7.16	210	1200	< 0.003	0.55	0.048	< 0.001	< 0.0005	0.0058	< 0.001	0.011	0.049	< 0.0002	< 0.0050	1.09	< 0.0025	< 0.002	< 0.002	
	5/5/2016	5.0	140	280	0.11	7.17	160	1000	< 0.003	0.51	0.038	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.057	< 0.0002	< 0.005	1.24	< 0.0025	< 0.002	< 0.002	
	8/26/2016	3.5	180	240	0.13	6.97	110	1100	< 0.003	0.11	0.05	< 0.001	< 0.0005	0.0055	< 0.001	0.0005	0.055	< 0.0002	< 0.005	1.04	< 0.0025	< 0.002	< 0.002	
	12/7/2016	3.0	170	270	0.12	7.06	110	1200	< 0.003	0.87	0.049	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.87	< 0.0025	< 0.002	< 0.002	
	2/24/2017	2.4	180	220	4.9	6.61	170	1200	< 0.003	0.58	0.047	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.039	< 0.0002	< 0.005	0.982	< 0.0025	< 0.002	< 0.002	
	5/18/2017	1.8	160	170	0.12	7.42	120	1000	< 0.003	0.5	0.047	^< 0.001	< 0.0005	0.0056	< 0.001	< 0.0005	0.036	< 0.0002	< 0.005	1.31	< 0.0025	< 0.002	< 0.002	
	7/6/2017	2.4	160	190	0.14	7.33	130	1100	< 0.003	0.69	0.064	< 0.001	< 0.0005	0.0057	< 0.001	< 0.0005	0.041	< 0.0002	< 0.005	0.889	< 0.0025	< 0.002	< 0.002	
	9/13/2017	1.9	140	150	0.26	7.16	96	870	< 0.003	0.66	0.036	< 0.001	< 0.0005	0.008	< 0.001	< 0.00071	0.037	< 0.0002	0.054	0.718	< 0.0025	< 0.002	< 0.002	
	11/30/2017	2.2	170	200	0.14	6.99	93	1100	< 0.003	0.59	0.05	^< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.041	< 0.0002	< 0.005	1.21	< 0.0025	< 0.002	< 0.002	
	5/31/2018	1.5	210	160	0.1	6.74	130	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2018	2.3	170	150	0.12	7.21	78	990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/15/2019	3.2	120	260	0.13	7.14	31	1000	< 0.003	0.3	0.048	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.5	< 0.0025	< 0.002	< 0.002	
	11/19/2019	4.1	130	200	0.15	7.51	29	860	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/22/2020	3.2	110	150	0.15	7.16	47	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/19/2020	2.3	140	130	0.2	7.00	28	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/6/2021	2.4	130	120	0.15	7.13	45	770	< 0.003	0.44	0.044	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.7	< 0.0025	< 0.002	< 0.002	
	8/19/2021	1.3	140	88	0.16	6.95	45	730	< 0.003	1.1	0.055	< 0.001	< 0.0005	0.0057	^< 0.001	< 0.0005	0.033	< 0.0002	< 0.005	1.89	< 0.0025	^< 0.002	< 0.002	
	11/4/2021	1.6	130	100	0.16	6.80	45	740	< 0.003	0.9	0.052	^1+ < 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.037	< 0.0002	< 0.005	1.35	^6.2 < 0.0025	< 0.002	< 0.002	
	2/10/2022	1.2	150	87	0.17	7.12	44	860	< 0.003	0.68	0.051	< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.032	< 0.0002	< 0.005	0.839	< 0.0025	< 0.002	< 0.002	
	5/24/2022	1.8	150	95	0.14	6.78	21	820	< 0.003	0.18	0.041	^< 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.037	< 0.0002	< 0.005	1.21	< 0.0025	< 0.002	< 0.002	
	8/23/2022	1.4	140	97	0.18	7.01	30	780	< 0.003	0.43	0.053	^1+ < 0.001	< 0.0005	< 0.0005	< 0.001	< 0.0005	0.031	< 0.0002	< 0.005	1.05	< 0.0025	< 0.002	< 0.002	
	11/8/2022	1.4	150	100	0.21	6.87	26	7																

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

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium
MW-02 down- gradient	11/2/2015	3.0	32	47	0.78	8.27	230	460	< 0.003	0.014	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0630	< 0.0025	< 0.002	
	3/1/2016	4.1	39	47	1.3	8.57	220	510	< 0.003	0.011	0.02	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.078	< 0.0025	< 0.002	
	5/4/2016	3.3	34	51	1.5	8.19	180	440	< 0.003	0.0081	0.018	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.069	< 0.0025	< 0.002	
	8/23/2016	3.1	42	59	1.3	7.52	250	500	< 0.003	0.0082	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.056	< 0.0025	< 0.002	
	12/5/2016	3.1	28	56	1.0	8.62	160	430	< 0.003	0.018	0.015	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.071	< 0.0025	< 0.002	
	2/21/2017	3.3	31	52	0.76	8.75	190	420	< 0.003	0.028	0.012	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.051	< 0.0025	< 0.002	
	5/15/2017	3.6	85	48	0.64	8.33	320	640	< 0.003	0.029	0.02	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.047	< 0.0025	< 0.002	
	7/5/2017	4.2	100	52	0.42	7.92	300	710	< 0.003	0.0094	0.031	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.047	< 0.0025	< 0.002	
	9/14/2017	2.5	87	54	0.44	8.19	340	780	< 0.003	0.012	0.035	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.049	< 0.0025	< 0.002	
	11/27/2017	3.4	69	57	0.62	7.34	200	570	< 0.003	0.011	0.022	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.048	< 0.0025	< 0.002	
	5/29/2018	4.5	160	43	0.40	6.85	420	990	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/5/2018	3.1	77	59	0.61	8.06	180	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/14/2019	2.9	47	49	1.0	8.30	140	430	< 0.003	0.0094	0.013	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.069	< 0.0025	< 0.002	
	11/19/2019	4.7	140	43	0.7	7.37	270	900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/21/2020	3.4	86	48	1.0	8.02	250	580	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/17/2020	4.0	79	20	0.8	7.67	310	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/5/2021	4.6	70	37	0.7	8.39	190	420	< 0.003	0.008	0.03	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.023	< 0.0025	< 0.002	
	8/18/2021	4.1	84	39	0.5	7.92	190	480	< 0.003	0.0088	0.029	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.021	< 0.0025	< 0.002	
	11/3/2021	4.2	59	43	0.6	7.78	170	410	< 0.003	0.009	0.025	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.03	< 0.0025	< 0.002	
	2/8/2022	0.2	71	34	0.5	8.00	200	580	< 0.003	0.021	0.025	< 0.001	< 0.0005	< 0.005	< 0.001	0.00069	0.0055	< 0.0002	0.028	< 0.0025	< 0.002	
	5/23/2022	3.5	77	30	0.5	8.12	190	510	< 0.003	0.02	0.03	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.024	< 0.0025	< 0.002	
	8/22/2022	3.3	84	33	0.3	7.59	220	650	< 0.003	0.011	0.024	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.029	< 0.0025	< 0.002	
	11/7/2022	3.5	120	36	0.3	7.40	270	700	< 0.003	0.013	0.023	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.028	< 0.0025	< 0.002	
	2/13/2023	3.8	83	45	0.34	7.90	180	560	< 0.0030	0.0086	0.029	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.022	< 0.0025	< 0.0020	
	5/8/2023	3.1	62	47	0.39	8.00	210	440	< 0.0030	0.0090	0.027	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.030	< 0.0025	< 0.0020	
	8/7/2023	< 1	68	51	0.40	8.17	210	510	< 0.0030	0.0089	0.022	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.032	< 0.0025	< 0.0020	
	11/28/2023	2.8	61	67	0.36	7.58	150	480	< 0.0030	0.0082	0.021	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.017	< 0.0025	< 0.0020	
	MW-03 down- gradient	11/2/2015	2.3	72	87	0.51	9.26	270	570	< 0.003	0.0068	0.011	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0370	< 0.0025	< 0.002
3/1/2016		2.9	61	70	0.33	7.33	220	530	< 0.003	0.0069	0.015	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0560	< 0.0025	< 0.002	
5/4/2016		2.4	42	74	0.56	7.25	170	470	< 0.003	0.007	0.011	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.058	< 0.0025	< 0.002	
8/24/2016		2.0	70	39	0.3	9.13	200	430	< 0.003	0.010	0.0069	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.042	< 0.0025	< 0.002	
12/5/2016		2.4	57	60	0.41	7.62	120	440	< 0.003	0.0065	0.0094	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.044	< 0.0025	< 0.002	
2/21/2017		2.2	56	65	0.33	7.56	180	460	< 0.003	0.011	0.0067	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.043	< 0.0025	< 0.002	
5/16/2017		3.9	110	61	0.27	7.90	320	820	< 0.003	0.0087	0.039	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.041	< 0.0025	< 0.002	
7/5/2017		2.1	60	40	0.28	7.45	200	470	< 0.003	0.007	0.017	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.048	< 0.0025	< 0.002	
9/14/2017		2.1	86	57	0.26	7.53	240	510	< 0.003	0.005	0.026	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.056	< 0.0025	< 0.002	
11/28/2017		2.6	69	63	0.56	6.96	120	500	< 0.003	0.0025	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.057	< 0.0025	< 0.002	
5/29/2018		2.4	67	61	0.38	6.84	190	480	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/5/2018		2.4	54	54	0.5	8.99	150	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/14/2019		4.2	86	17	0.59	7.21	270	660	< 0.003	0.0059	0.022	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.053	< 0.0025	< 0.002	
11/19/2019		4.2	130	15	0.25	7.47	300	740	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/21/2020		3.8	120	23	0.29	6.87	270	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/17/2020		3.8	120	53	0.29	7.05	240	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/5/2021		3.3	110	43	0.23	7.18	210	550	< 0.003	0.0066	0.035	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.016	< 0.0025	< 0.002	
8/18/2021		3	150	46	0.17	6.9	250	690	< 0.003	0.0052	0.041	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	0.00031	0.045	< 0.0025	< 0.002	
11/3/2021		3.2	120	40	0.18	7.05	250	600	< 0.003	0.0071	0.036	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.025	< 0.0025	< 0.002	
2/8/2022		2.6	91	31	0.3	7.16	210	580	< 0.003	0.0053	0.028	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.031	< 0.0025	< 0.002	
5/23/2022		2.4	79	32	0.23	8.72	170	450	< 0.003	0.016	0.016	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.025	< 0.0025	< 0.002	
8/22/2022		1.8	80	45	0.2	7.38	180	570	< 0.003	0.0054	0.02	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.026	< 0.0025	< 0.002	
11/7/2022		2.3	82	50	0.35	7.35	180	520	< 0.003	0.0055	0.021	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.035	< 0.0025	< 0.002	
2/13/2023		2.4	74	60	0.21	7.13	150	510	< 0.0030	0.0059	0.022	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.030	< 0.0025	< 0.0020	
5/8/2023		2.3	53	53	0.32	8.20	130	340	< 0.0030	0.010	0.013	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.046	< 0.0025	< 0.0020	
8/7/2023		< 2	45	54	0.48	7.73	130	380	< 0.0030	0.014	0.012	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	< 0.010	< 0.00020	0.053	< 0.0025	< 0.0020	
11/27/2023		2.1	34	51	0.41	8.06	130	370	< 0.0030	0.020	0.010	< 0.0010	< 0.00050</									

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	
11/28/2023	27.24	
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	
11/28/2023	7.01	
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	
11/28/2023	220.56	

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	
11/27/2023	3.74	
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	
11/28/2023	4.56	
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	
11/27/2023	3.57	

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	
11/27/2023	4.22	
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	
11/28/2023	45.54	

\* - 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 1/2/2024 9:31:00 AM

**JOB DESCRIPTION**

Waukegan CCR

**JOB NUMBER**

500-243011-1

# Eurofins Chicago

## Job Notes

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## Authorization



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# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Method Summary . . . . .	5
Sample Summary . . . . .	6
Client Sample Results . . . . .	7
Definitions . . . . .	16
QC Association . . . . .	17
QC Sample Results . . . . .	21
Chain of Custody . . . . .	26
Receipt Checklists . . . . .	31
Chronicle . . . . .	32
Certification Summary . . . . .	36

# Case Narrative

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

Job ID: 500-243011-1

**Job ID: 500-243011-1**

**Eurofins Chicago**

## Job Narrative 500-243011-1

### Receipt

The samples were received on 11/28/2023 9:30 AM and 11/29/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 4.4°C and 5.3°C

### Metals

Method 6020B: The initial low level calibration verification (ICVL) result for batch 747971 was above the upper control limit for Be. Sample results were non-detects, and have been reported as qualified data.

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

### General Chemistry

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

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# Method Summary

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

Job ID: 500-243011-1

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

#### Protocol References:

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

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

#### Laboratory References:

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

# Sample Summary

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

Job ID: 500-243011-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-243011-1	MW-01	Water	11/27/23 12:12	11/28/23 09:30
500-243011-2	MW-03	Water	11/27/23 14:34	11/28/23 09:30
500-243011-3	MW-04	Water	11/27/23 13:22	11/28/23 09:30
500-243011-4	MW-02	Water	11/28/23 09:17	11/29/23 09:30
500-243011-5	MW-09	Water	11/28/23 13:59	11/29/23 09:30
500-243011-6	MW-11	Water	11/28/23 11:18	11/29/23 09:30
500-243011-7	MW-14	Water	11/28/23 12:35	11/29/23 09:30
500-243011-8	MW-16	Water	11/28/23 10:10	11/29/23 09:30
500-243011-9	Duplicate	Water	11/28/23 00:00	11/29/23 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: 500-243011-1

**Client Sample ID: MW-01**  
Date Collected: 11/27/23 12:12  
Date Received: 11/28/23 09:30

**Lab Sample ID: 500-243011-1**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:35	1
<b>Arsenic</b>	<b>0.023</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 19:35	1
<b>Barium</b>	<b>0.033</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 19:35	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:36	1
<b>Boron</b>	<b>1.6</b>		0.050		mg/L		12/19/23 18:32	12/22/23 14:48	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:35	1
<b>Calcium</b>	<b>54</b>		0.20		mg/L		12/19/23 18:32	12/20/23 19:35	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:35	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:35	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:35	1
Lithium	<0.010		0.010		mg/L		12/19/23 18:32	12/20/23 19:35	1
<b>Molybdenum</b>	<b>0.018</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 19:35	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:36	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:29	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>390</b>		10		mg/L			11/28/23 21:14	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>61</b>		4.0		mg/L			12/04/23 17:13	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.31</b>		0.10		mg/L			12/07/23 17:02	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>140</b>		50		mg/L			12/03/23 13:17	10

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-03**

**Lab Sample ID: 500-243011-2**

Date Collected: 11/27/23 14:34

Matrix: Water

Date Received: 11/28/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:46	1
<b>Arsenic</b>	<b>0.020</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 19:46	1
<b>Barium</b>	<b>0.010</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 19:46	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:40	1
<b>Boron</b>	<b>2.1</b>		0.050		mg/L		12/19/23 18:32	12/20/23 19:46	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:46	1
<b>Calcium</b>	<b>34</b>		0.20		mg/L		12/19/23 18:32	12/20/23 19:46	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:46	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:46	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:46	1
Lithium	<0.010		0.010		mg/L		12/19/23 18:32	12/20/23 19:46	1
<b>Molybdenum</b>	<b>0.037</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 19:46	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:40	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:31	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>370</b>		10		mg/L			11/28/23 21:17	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>51</b>		4.0		mg/L			12/04/23 17:13	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.41</b>		0.10		mg/L			12/07/23 17:26	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>130</b>		50		mg/L			12/03/23 13:18	10

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-04**  
Date Collected: 11/27/23 13:22  
Date Received: 11/28/23 09:30

**Lab Sample ID: 500-243011-3**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:49	1
<b>Arsenic</b>	<b>0.0089</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 19:49	1
<b>Barium</b>	<b>0.023</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 19:49	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:43	1
<b>Boron</b>	<b>2.4</b>		0.050		mg/L		12/19/23 18:32	12/20/23 19:49	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:49	1
<b>Calcium</b>	<b>44</b>		0.20		mg/L		12/19/23 18:32	12/20/23 19:49	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:49	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:49	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:49	1
Lithium	<0.010		0.010		mg/L		12/19/23 18:32	12/20/23 19:49	1
<b>Molybdenum</b>	<b>0.062</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 19:49	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:43	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>360</b>		10		mg/L			11/28/23 21:19	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>58</b>		4.0		mg/L			12/04/23 18:44	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.37</b>		0.10		mg/L			12/07/23 17:31	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>130</b>		50		mg/L			12/03/23 13:19	10

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-02**  
Date Collected: 11/28/23 09:17  
Date Received: 11/29/23 09:30

**Lab Sample ID: 500-243011-4**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:53	1
<b>Arsenic</b>	<b>0.0082</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 19:53	1
<b>Barium</b>	<b>0.021</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 19:53	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:47	1
<b>Boron</b>	<b>2.8</b>		0.050		mg/L		12/19/23 18:32	12/20/23 19:53	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:53	1
<b>Calcium</b>	<b>61</b>		0.20		mg/L		12/19/23 18:32	12/20/23 19:53	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:53	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:53	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:53	1
Lithium	<0.010		0.010		mg/L		12/19/23 18:32	12/20/23 19:53	1
<b>Molybdenum</b>	<b>0.017</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 19:53	1
<b>Selenium</b>	<b>0.0054</b>		0.0025		mg/L		12/19/23 18:32	12/21/23 18:47	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:35	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			11/29/23 22:51	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>67</b>		4.0		mg/L			12/04/23 16:52	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.36</b>		0.10		mg/L			12/07/23 17:35	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>150</b>		50		mg/L			12/03/23 13:18	10



# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-09**

**Lab Sample ID: 500-243011-5**

Date Collected: 11/28/23 13:59

Matrix: Water

Date Received: 11/29/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:56	1
<b>Arsenic</b>	<b>0.0071</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 19:56	1
<b>Barium</b>	<b>0.061</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 19:56	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:51	1
<b>Boron</b>	<b>2.6</b>		0.050		mg/L		12/19/23 18:32	12/20/23 19:56	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:56	1
<b>Calcium</b>	<b>96</b>		0.20		mg/L		12/19/23 18:32	12/20/23 19:56	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:56	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:56	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:56	1
<b>Lithium</b>	<b>0.053</b>		0.010		mg/L		12/19/23 18:32	12/20/23 19:56	1
<b>Molybdenum</b>	<b>0.049</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 19:56	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:51	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:37	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>750</b>		10		mg/L			11/29/23 22:53	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>170</b>		20		mg/L			12/04/23 16:52	10
<b>Fluoride (SM 4500 F C)</b>	<b>0.33</b>		0.10		mg/L			12/07/23 17:40	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>130</b>		50		mg/L			12/03/23 13:18	10

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-11**  
Date Collected: 11/28/23 11:18  
Date Received: 11/29/23 09:30

**Lab Sample ID: 500-243011-6**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:59	1
<b>Arsenic</b>	<b>0.52</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 19:59	1
<b>Barium</b>	<b>0.069</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 19:59	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:55	1
<b>Boron</b>	<b>1.2</b>		0.050		mg/L		12/19/23 18:32	12/20/23 19:59	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:59	1
<b>Calcium</b>	<b>130</b>		0.20		mg/L		12/19/23 18:32	12/20/23 19:59	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:59	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:59	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:59	1
<b>Lithium</b>	<b>0.026</b>		0.010		mg/L		12/19/23 18:32	12/20/23 19:59	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:59	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:55	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:40	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>790</b>		10		mg/L			11/29/23 22:56	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>82</b>		4.0		mg/L			12/04/23 16:52	2
<b>Fluoride (SM 4500 F C)</b>	<b>0.16</b>		0.10		mg/L			12/07/23 17:45	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>81</b>		10		mg/L			12/03/23 13:19	2

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-14**  
Date Collected: 11/28/23 12:35  
Date Received: 11/29/23 09:30

**Lab Sample ID: 500-243011-7**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 20:03	1
<b>Arsenic</b>	<b>1.4</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 20:03	1
<b>Barium</b>	<b>0.035</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 20:03	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:59	1
<b>Boron</b>	<b>0.52</b>		0.050		mg/L		12/19/23 18:32	12/20/23 20:03	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 20:03	1
<b>Calcium</b>	<b>130</b>		0.20		mg/L		12/19/23 18:32	12/20/23 20:03	1
<b>Chromium</b>	<b>0.17</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 20:03	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 20:03	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 20:03	1
<b>Lithium</b>	<b>0.013</b>		0.010		mg/L		12/19/23 18:32	12/20/23 20:03	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 20:03	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:59	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 20:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>600</b>		10		mg/L			11/29/23 22:58	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>25</b>		2.0		mg/L			12/04/23 16:52	1
<b>Fluoride (SM 4500 F C)</b>	<b>0.16</b>		0.10		mg/L			12/07/23 17:50	1
Sulfate (SM 4500 SO4 E)	<5.0		5.0		mg/L			12/03/23 13:03	1

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: MW-16**  
Date Collected: 11/28/23 10:10  
Date Received: 11/29/23 09:30

**Lab Sample ID: 500-243011-8**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 20:06	1
<b>Arsenic</b>	<b>0.0015</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 20:06	1
<b>Barium</b>	<b>0.039</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 20:06	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 19:02	1
<b>Boron</b>	<b>2.7</b>		0.050		mg/L		12/19/23 18:32	12/20/23 20:06	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 20:06	1
<b>Calcium</b>	<b>130</b>		0.20		mg/L		12/19/23 18:32	12/20/23 20:06	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 20:06	1
<b>Cobalt</b>	<b>0.0016</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 20:06	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 20:06	1
<b>Lithium</b>	<b>0.012</b>		0.010		mg/L		12/19/23 18:32	12/20/23 20:06	1
<b>Molybdenum</b>	<b>0.023</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 20:06	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 19:02	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 20:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:48	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total Dissolved Solids (SM 2540C)</b>	<b>830</b>		10		mg/L			11/29/23 23:01	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>47</b>		2.0		mg/L			12/04/23 16:53	1
<b>Fluoride (SM 4500 F C)</b>	<b>0.52</b>		0.10		mg/L			12/07/23 17:55	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>350</b>		50		mg/L			12/03/23 13:19	10

# Client Sample Results

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

Job ID: 500-243011-1

**Client Sample ID: Duplicate**

**Lab Sample ID: 500-243011-9**

Date Collected: 11/28/23 00:00

Matrix: Water

Date Received: 11/29/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 20:10	1
Arsenic	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 20:10	1
<b>Barium</b>	<b>0.039</b>		0.0025		mg/L		12/19/23 18:32	12/20/23 20:10	1
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 19:06	1
<b>Boron</b>	<b>2.9</b>		0.050		mg/L		12/19/23 18:32	12/20/23 20:10	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 20:10	1
<b>Calcium</b>	<b>140</b>		0.20		mg/L		12/19/23 18:32	12/20/23 20:10	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 20:10	1
<b>Cobalt</b>	<b>0.0015</b>		0.0010		mg/L		12/19/23 18:32	12/20/23 20:10	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 20:10	1
<b>Lithium</b>	<b>0.013</b>		0.010		mg/L		12/19/23 18:32	12/20/23 20:10	1
<b>Molybdenum</b>	<b>0.024</b>		0.0050		mg/L		12/19/23 18:32	12/20/23 20:10	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 19:06	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 20:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:50	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			11/29/23 23:04	1
<b>Chloride (SM 4500 Cl- E)</b>	<b>47</b>		2.0		mg/L			12/04/23 16:43	1
<b>Fluoride (SM 4500 F C)</b>	<b>0.53</b>		0.10		mg/L			12/07/23 18:26	1
<b>Sulfate (SM 4500 SO4 E)</b>	<b>320</b>		50		mg/L			12/03/23 13:19	10

# Definitions/Glossary

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

Job ID: 500-243011-1

## Qualifiers

### Metals

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

## Glossary

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

# QC Association Summary

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

Job ID: 500-243011-1

## Metals

### Prep Batch: 746502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	7470A	
500-243011-2	MW-03	Total/NA	Water	7470A	
500-243011-3	MW-04	Total/NA	Water	7470A	
500-243011-4	MW-02	Total/NA	Water	7470A	
500-243011-5	MW-09	Total/NA	Water	7470A	
500-243011-6	MW-11	Total/NA	Water	7470A	
500-243011-7	MW-14	Total/NA	Water	7470A	
500-243011-8	MW-16	Total/NA	Water	7470A	
500-243011-9	Duplicate	Total/NA	Water	7470A	
MB 500-746502/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-746502/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-243011-9 MS	Duplicate	Total/NA	Water	7470A	
500-243011-9 MSD	Duplicate	Total/NA	Water	7470A	
500-243011-9 DU	Duplicate	Total/NA	Water	7470A	

### Analysis Batch: 746723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	7470A	746502
500-243011-2	MW-03	Total/NA	Water	7470A	746502
500-243011-3	MW-04	Total/NA	Water	7470A	746502
500-243011-4	MW-02	Total/NA	Water	7470A	746502
500-243011-5	MW-09	Total/NA	Water	7470A	746502
500-243011-6	MW-11	Total/NA	Water	7470A	746502
500-243011-7	MW-14	Total/NA	Water	7470A	746502
500-243011-8	MW-16	Total/NA	Water	7470A	746502
500-243011-9	Duplicate	Total/NA	Water	7470A	746502
MB 500-746502/12-A	Method Blank	Total/NA	Water	7470A	746502
LCS 500-746502/13-A	Lab Control Sample	Total/NA	Water	7470A	746502
500-243011-9 MS	Duplicate	Total/NA	Water	7470A	746502
500-243011-9 MSD	Duplicate	Total/NA	Water	7470A	746502
500-243011-9 DU	Duplicate	Total/NA	Water	7470A	746502

### Prep Batch: 747410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total Recoverable	Water	3005A	
500-243011-2	MW-03	Total Recoverable	Water	3005A	
500-243011-3	MW-04	Total Recoverable	Water	3005A	
500-243011-4	MW-02	Total Recoverable	Water	3005A	
500-243011-5	MW-09	Total Recoverable	Water	3005A	
500-243011-6	MW-11	Total Recoverable	Water	3005A	
500-243011-7	MW-14	Total Recoverable	Water	3005A	
500-243011-8	MW-16	Total Recoverable	Water	3005A	
500-243011-9	Duplicate	Total Recoverable	Water	3005A	
MB 500-747410/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-747410/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

### Analysis Batch: 747720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total Recoverable	Water	6020B	747410
500-243011-2	MW-03	Total Recoverable	Water	6020B	747410
500-243011-3	MW-04	Total Recoverable	Water	6020B	747410

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# QC Association Summary

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

Job ID: 500-243011-1

## Metals (Continued)

### Analysis Batch: 747720 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-4	MW-02	Total Recoverable	Water	6020B	747410
500-243011-5	MW-09	Total Recoverable	Water	6020B	747410
500-243011-6	MW-11	Total Recoverable	Water	6020B	747410
500-243011-7	MW-14	Total Recoverable	Water	6020B	747410
500-243011-8	MW-16	Total Recoverable	Water	6020B	747410
500-243011-9	Duplicate	Total Recoverable	Water	6020B	747410
MB 500-747410/1-A	Method Blank	Total Recoverable	Water	6020B	747410
LCS 500-747410/2-A	Lab Control Sample	Total Recoverable	Water	6020B	747410

### Analysis Batch: 747971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total Recoverable	Water	6020B	747410
500-243011-2	MW-03	Total Recoverable	Water	6020B	747410
500-243011-3	MW-04	Total Recoverable	Water	6020B	747410
500-243011-4	MW-02	Total Recoverable	Water	6020B	747410
500-243011-5	MW-09	Total Recoverable	Water	6020B	747410
500-243011-6	MW-11	Total Recoverable	Water	6020B	747410
500-243011-7	MW-14	Total Recoverable	Water	6020B	747410
500-243011-8	MW-16	Total Recoverable	Water	6020B	747410
500-243011-9	Duplicate	Total Recoverable	Water	6020B	747410
MB 500-747410/1-A	Method Blank	Total Recoverable	Water	6020B	747410
LCS 500-747410/2-A	Lab Control Sample	Total Recoverable	Water	6020B	747410

### Analysis Batch: 748512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total Recoverable	Water	6020B	747410
MB 500-747410/1-A	Method Blank	Total Recoverable	Water	6020B	747410
LCS 500-747410/2-A	Lab Control Sample	Total Recoverable	Water	6020B	747410

## General Chemistry

### Analysis Batch: 744097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	SM 2540C	
500-243011-2	MW-03	Total/NA	Water	SM 2540C	
500-243011-3	MW-04	Total/NA	Water	SM 2540C	
MB 500-744097/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-744097/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 744338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-4	MW-02	Total/NA	Water	SM 2540C	
500-243011-5	MW-09	Total/NA	Water	SM 2540C	
500-243011-6	MW-11	Total/NA	Water	SM 2540C	
500-243011-7	MW-14	Total/NA	Water	SM 2540C	
500-243011-8	MW-16	Total/NA	Water	SM 2540C	
500-243011-9	Duplicate	Total/NA	Water	SM 2540C	
MB 500-744338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-744338/2	Lab Control Sample	Total/NA	Water	SM 2540C	

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# QC Association Summary

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

Job ID: 500-243011-1

## General Chemistry

### Analysis Batch: 744844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-243011-2	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-243011-3	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-243011-4	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-243011-5	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-243011-6	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-243011-7	MW-14	Total/NA	Water	SM 4500 SO4 E	
500-243011-8	MW-16	Total/NA	Water	SM 4500 SO4 E	
500-243011-9	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-744844/120	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-744844/121	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 745043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-243011-2	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-243011-4	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-243011-5	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-243011-6	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-243011-7	MW-14	Total/NA	Water	SM 4500 Cl- E	
500-243011-8	MW-16	Total/NA	Water	SM 4500 Cl- E	
500-243011-9	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-745043/122	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 500-745043/69	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-745043/123	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 500-745043/70	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 745131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-3	MW-04	Total/NA	Water	SM 4500 Cl- E	
MB 500-745131/170	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-745131/171	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 745789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	SM 4500 F C	
500-243011-2	MW-03	Total/NA	Water	SM 4500 F C	
500-243011-3	MW-04	Total/NA	Water	SM 4500 F C	
500-243011-4	MW-02	Total/NA	Water	SM 4500 F C	
500-243011-5	MW-09	Total/NA	Water	SM 4500 F C	
500-243011-6	MW-11	Total/NA	Water	SM 4500 F C	
500-243011-7	MW-14	Total/NA	Water	SM 4500 F C	
500-243011-8	MW-16	Total/NA	Water	SM 4500 F C	
500-243011-9	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-745789/31	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-745789/59	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-745789/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-745789/60	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-243011-1 MS	MW-01	Total/NA	Water	SM 4500 F C	
500-243011-1 MSD	MW-01	Total/NA	Water	SM 4500 F C	
500-243011-9 MS	Duplicate	Total/NA	Water	SM 4500 F C	

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# QC Association Summary

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

Job ID: 500-243011-1

## General Chemistry (Continued)

### Analysis Batch: 745789 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-9 MSD	Duplicate	Total/NA	Water	SM 4500 F C	

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

# QC Sample Results

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

Job ID: 500-243011-1

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

**Lab Sample ID: MB 500-747410/1-A**  
**Matrix: Water**  
**Analysis Batch: 747720**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 747410**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0030		0.0030		mg/L		12/19/23 18:32	12/20/23 19:28	1
Arsenic	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:28	1
Barium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/20/23 19:28	1
Cadmium	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:28	1
Calcium	<0.20		0.20		mg/L		12/19/23 18:32	12/20/23 19:28	1
Chromium	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:28	1
Cobalt	<0.0010		0.0010		mg/L		12/19/23 18:32	12/20/23 19:28	1
Lead	<0.00050		0.00050		mg/L		12/19/23 18:32	12/20/23 19:28	1
Lithium	<0.010		0.010		mg/L		12/19/23 18:32	12/20/23 19:28	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/23 18:32	12/20/23 19:28	1
Thallium	<0.0020		0.0020		mg/L		12/19/23 18:32	12/20/23 19:28	1

**Lab Sample ID: MB 500-747410/1-A**  
**Matrix: Water**  
**Analysis Batch: 747971**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 747410**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Beryllium	<0.0010	^1+	0.0010		mg/L		12/19/23 18:32	12/21/23 18:17	1
Selenium	<0.0025		0.0025		mg/L		12/19/23 18:32	12/21/23 18:17	1

**Lab Sample ID: MB 500-747410/1-A**  
**Matrix: Water**  
**Analysis Batch: 748512**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 747410**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.050		0.050		mg/L		12/19/23 18:32	12/22/23 14:40	1

**Lab Sample ID: LCS 500-747410/2-A**  
**Matrix: Water**  
**Analysis Batch: 747720**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 747410**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	0.500	0.492		mg/L		98	80 - 120
Arsenic	0.100	0.0931		mg/L		93	80 - 120
Barium	2.00	1.99		mg/L		99	80 - 120
Cadmium	0.0500	0.0454		mg/L		91	80 - 120
Calcium	10.0	8.29		mg/L		83	80 - 120
Chromium	0.200	0.188		mg/L		94	80 - 120
Cobalt	0.500	0.462		mg/L		92	80 - 120
Lead	0.100	0.0983		mg/L		98	80 - 120
Lithium	0.500	0.465		mg/L		93	80 - 120
Molybdenum	1.00	0.930		mg/L		93	80 - 120
Thallium	0.100	0.0958		mg/L		96	80 - 120

# QC Sample Results

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

Job ID: 500-243011-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-747410/2-A  
Matrix: Water  
Analysis Batch: 747971

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 747410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.0500	0.0476	^1+	mg/L		95	80 - 120
Selenium	0.100	0.0943		mg/L		94	80 - 120

Lab Sample ID: LCS 500-747410/2-A  
Matrix: Water  
Analysis Batch: 748512

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 747410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.989		mg/L		99	80 - 120

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-746502/12-A  
Matrix: Water  
Analysis Batch: 746723

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 746502

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		12/13/23 10:25	12/14/23 08:25	1

Lab Sample ID: LCS 500-746502/13-A  
Matrix: Water  
Analysis Batch: 746723

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 746502

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00210		mg/L		105	80 - 120

Lab Sample ID: 500-243011-9 MS  
Matrix: Water  
Analysis Batch: 746723

Client Sample ID: Duplicate  
Prep Type: Total/NA  
Prep Batch: 746502

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00100	0.000982		mg/L		98	75 - 125

Lab Sample ID: 500-243011-9 MSD  
Matrix: Water  
Analysis Batch: 746723

Client Sample ID: Duplicate  
Prep Type: Total/NA  
Prep Batch: 746502

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.00102		mg/L		102	75 - 125	4	20

Lab Sample ID: 500-243011-9 DU  
Matrix: Water  
Analysis Batch: 746723

Client Sample ID: Duplicate  
Prep Type: Total/NA  
Prep Batch: 746502

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

# QC Sample Results

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

Job ID: 500-243011-1

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

Lab Sample ID: MB 500-744097/1  
Matrix: Water  
Analysis Batch: 744097

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/28/23 20:36	1

Lab Sample ID: LCS 500-744097/2  
Matrix: Water  
Analysis Batch: 744097

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

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

Lab Sample ID: MB 500-744338/1  
Matrix: Water  
Analysis Batch: 744338

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/29/23 22:33	1

Lab Sample ID: LCS 500-744338/2  
Matrix: Water  
Analysis Batch: 744338

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

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

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

Lab Sample ID: MB 500-745043/122  
Matrix: Water  
Analysis Batch: 745043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/04/23 16:51	1

Lab Sample ID: MB 500-745043/69  
Matrix: Water  
Analysis Batch: 745043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/04/23 15:12	1

Lab Sample ID: LCS 500-745043/123  
Matrix: Water  
Analysis Batch: 745043

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	21.3		mg/L		107	85 - 115

# QC Sample Results

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

Job ID: 500-243011-1

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

**Lab Sample ID: LCS 500-745043/70**  
**Matrix: Water**  
**Analysis Batch: 745043**

**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	21.1		mg/L		105	85 - 115

**Lab Sample ID: MB 500-745131/170**  
**Matrix: Water**  
**Analysis Batch: 745131**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/04/23 18:43	1

**Lab Sample ID: LCS 500-745131/171**  
**Matrix: Water**  
**Analysis Batch: 745131**

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

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

## Method: SM 4500 F C - Fluoride

**Lab Sample ID: MB 500-745789/31**  
**Matrix: Water**  
**Analysis Batch: 745789**

**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			12/07/23 15:45	1

**Lab Sample ID: MB 500-745789/59**  
**Matrix: Water**  
**Analysis Batch: 745789**

**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			12/07/23 18:05	1

**Lab Sample ID: LCS 500-745789/32**  
**Matrix: Water**  
**Analysis Batch: 745789**

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

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

**Lab Sample ID: LCS 500-745789/60**  
**Matrix: Water**  
**Analysis Batch: 745789**

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

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

# QC Sample Results

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

Job ID: 500-243011-1

## Method: SM 4500 F C - Fluoride (Continued)

**Lab Sample ID: 500-243011-1 MS**  
**Matrix: Water**  
**Analysis Batch: 745789**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.31		5.00	5.20		mg/L		98	75 - 125

**Lab Sample ID: 500-243011-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 745789**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.31		5.00	5.18		mg/L		97	75 - 125	0	20

**Lab Sample ID: 500-243011-9 MS**  
**Matrix: Water**  
**Analysis Batch: 745789**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.53		5.00	5.80		mg/L		105	75 - 125

**Lab Sample ID: 500-243011-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 745789**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.53		5.00	5.51		mg/L		100	75 - 125	5	20

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

**Lab Sample ID: MB 500-744844/120**  
**Matrix: Water**  
**Analysis Batch: 744844**

**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			12/03/23 13:01	1

**Lab Sample ID: LCS 500-744844/121**  
**Matrix: Water**  
**Analysis Batch: 744844**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	20.0	21.8		mg/L		109	88 - 123



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**Chain of Custody Record**

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Environmental Solutions

<b>Client Information</b>		Sampler <i>Jack Misner</i>		Lab PM Mockler Diana J		Carrier Tracking No(s)		COC No. 500-117754-44027 1			
Client Contact <i>Kathryn Sperio</i>		Phone <i>262-622-1143</i>		E-Mail Diana.Mockler@et.eurofinsus.com		State of Origin <b>IL</b>		Page 1 of 1			
Company KPRG and Associates, Inc		PWSID		<b>Analysis Requested</b>						Job # <i>500-243011</i>	
Address 14665 West Lisbon Road Suite 1A		Due Date Requested <i>Standard</i>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers		Preservation Codes	
City Brookfield		TAT Requested (days) <i>Standard</i>								A HCL M Hexane	
State Zip WI, 53005		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No		903.0, 904.0		6010C, 6020A, 7470A		E NaHSO4 Q Na2SO3		F MeOH R Na2S2O3	
Phone 262-781-0475(Tel)		PO # <i>4502140739</i>		2540C, 4500_F_C, SIM4500_C1_E, SIM4500_SO4_E		2540C, 4500_F_C, SIM4500_C1_E, SIM4500_SO4_E		G Amchlor S H2SO4		H Ascorbic Acid T TSP Dodecahydrate	
Email <i>kathryn@kprginc.com</i>		WO #		BT-Tissue, A-Air				I Ice U Acetone		J DI Water V MCAA	
Project Name Waukegan CCR Event Desc: Quarterly Waukegan CCR		Project # 50011597						K EDTA W pH 4-5		L EDA Y Trizma	
Site Illinois		SSOW#						Z other (specify)		Other:	
<b>Sample Identification</b>		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A-Air)		Special Instructions/Note	
		Preservation Code:									
<i>1</i> MW-01		<i>11/27/23</i>		<i>1212</i>		<i>G</i>		<i>Water</i>		<i>5 No Turbidity requested</i>	
<del>MW-02</del>											
<i>2</i> MW-03		<i>11/27/23</i>		<i>1434</i>		<i>G</i>		<i>Water</i>		<i>5</i>	
<i>3</i> MW-04		<i>11/27/23</i>		<i>1322</i>		<i>G</i>		<i>Water</i>		<i>5</i>	
<del>MW-05</del>											
<del>MW-11</del>											
<del>MW-15</del>											
<del>MW-16</del>											
<del>Duplicate</del>											
<b>Possible Hazard Identification</b>		<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		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>		<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 <i>Jack Misner</i>		Date/Time <i>11/27/23 1700</i>		Company <i>KPRG</i>		Received by <i>Shirley Smith</i>		Date/Time <i>11/28/23 0930</i>		Company <i>ERPA</i>	
Relinquished by		Date/Time		Company		Received by		Date/Time		Company	
Relinquished by		Date/Time		Company		Received by		Date/Time		Company	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		<i>11-2/10</i>					



# Chain of Custody Record

541622



Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name: <u>KPRG and Associates</u> Address: <u>14165 W. Lisbon Rd, Ste 2A</u> City/State/Zip: <u>Brookfield, WI 53005</u> Phone: <u>262-781-0475</u> Fax: _____ Project Name: <u>Midwest Generation-</u> Site: <u>Waukegan CCR</u> PO #: <u>4502140739</u>		<b>Project Manager: Diana Mockler</b> Tel/Email: <u>diana.mockler@eurofins.us</u> <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <u>Standard</u> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact</b> Date: _____ Carrier: _____ Lab Contact: _____ COC No: _____ of _____ COCs									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont	Filtered Sample (Y/N)	Perform MS /MSD (Y/N)	Res.v.v.m. <u>ILG/ILG</u>	Total Metals	Total Cl, Fl, SO4, TDS	500-243011 COC	Job / SDG No <u>500-243011</u>
MW-02		11/28/23	0917	G	Water	5	N	N	X	X	X		
MW-09		↓	1359	↓	↓	↓	N	N	↓	↓	↓		
MW-11		↓	1118	↓	↓	↓	N	N	↓	↓	↓		
MW-14		↓	1235	↓	↓	↓	N	N	↓	↓	↓		
MW-16		↓	1010	↓	↓	↓	N	N	↓	↓	↓		
Duplicate		11/28/23	-	G	Water	5	N	N	X	X	X		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other <u>NONE</u>		Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input checked="" type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months									
Special Instructions/QC Requirements & Comments: <u>4.6 → 4.4, 5.5 → 5.3</u>		Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd _____ Cor'd _____		Therm ID No _____					
Relinquished by <u>Jayla Tringali</u>		Company <u>KPRG</u>		Date/Time <u>11/28/23 1715</u>		Received by _____		Company _____		Date/Time _____			
Relinquished by _____		Company _____		Date/Time _____		Received by _____		Company _____		Date/Time _____			
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>Shirley Scott</u>		Company <u>EDD</u>		Date/Time <u>11/29/23 0930</u>			

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ORIGIN ID: FEPA (262) 278-1621  
KPRG AND ASSOCIATES  
KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

SHIP DATE: 27NOV23  
ACTWGT: 53.45 LB  
CAD: 6994085/SSFE2460  
DIMS: 26x14x13 IN

WESTMONT, IL 60559  
UNITED STATES US

BILL THIRD PARTY

TO **SAMPLE RECIEVING**  
**EUROFINS CHICAGO**  
**2417 BOND ST**



**UNIVERSITY PARK IL 60484**

500-243011 Waybi

(999) 999-9999  
INV:  
PO:

REF:

DEPT:



**FedEx**  
Express



AN1091013208227

1 of 2

TRK# 7870 3959 1797  
0201  
## MASTER ##

**79 JOTA**

**TUE - 28 NOV 12:00P**  
**PRIORITY OVERNIGHT**

**AHS**  
**60484**

**IL-US ORD**



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**A** 5 12:00

**RT 519**

Part # 166287435 HFD03 Exp 07/24

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

SHIP DATE: 28NOV23  
ACTWGT: 53.90 LB  
CAD: 6994084/SSFE2460  
DIMS: 26x14x14 IN  
BILL THIRD PARTY

Part # 156297-435 RRDB EXP 07/24

TO EUROFINS CHICAGO

2417 BOND ST



500-243011 Waybi

UNIVERSITY PARK

(999) 999-9999  
INU:  
PO:

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3674  
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FedEx  
Express

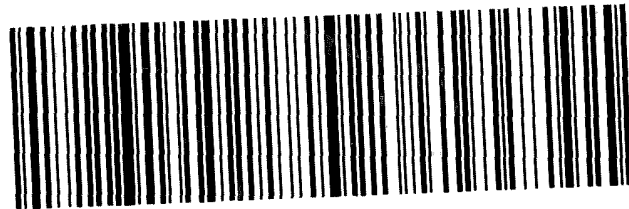


REL#  
3785346

1 of 5  
TRK# 7871 3235 3674  
0201  
## MASTER ##

79 JOTA

WED - 29 NOV 12:00P  
PRIORITY OVERNIGHT  
AHS  
60484  
IL-US ORD



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

SHIP DATE: 28NOV23  
ACTWGT: 52.85 LB  
CAD: 6994084/SSFE2460  
DIMS: 26x14x14 IN

WESTMONT, IL 60559  
UNITED STATES US

BILL THIRD PARTY

TO EUROFINS CHICAGO

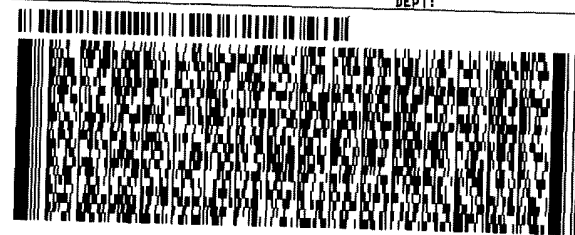
2417 BOND ST

UNIVERSITY PARK IL 60484

(999) 999-9999  
INU:  
PO:

REF:

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FedEx  
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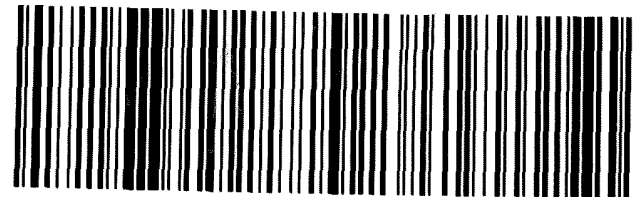


REL#  
3785346

4 of 5  
MPS# 7871 3235 3700  
0263  
Mstr# 7871 3235 3674

WED - 29 NOV 12:00P  
PRIORITY OVERNIGHT  
AHS  
60484  
IL-US ORD

79 JOTA



Part # 156297-435 RRDB EXP 07/24

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# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-243011-1

**Login Number: 243011**

**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	1.0,4.4,5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Lab Chronicle

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

Job ID: 500-243011-1

**Client Sample ID: MW-01**  
**Date Collected: 11/27/23 12:12**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 19:35
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:36
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748512	RN	EET CHI	12/22/23 14:48
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:29
Total/NA	Analysis	SM 2540C		1	744097	CLB	EET CHI	11/28/23 21:14
Total/NA	Analysis	SM 4500 CI- E		2	745043	TR	EET CHI	12/04/23 17:13
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:02
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:17

**Client Sample ID: MW-03**  
**Date Collected: 11/27/23 14:34**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 19:46
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:40
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:31
Total/NA	Analysis	SM 2540C		1	744097	CLB	EET CHI	11/28/23 21:17
Total/NA	Analysis	SM 4500 CI- E		2	745043	TR	EET CHI	12/04/23 17:13
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:26
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:18

**Client Sample ID: MW-04**  
**Date Collected: 11/27/23 13:22**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 19:49
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:43
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:33
Total/NA	Analysis	SM 2540C		1	744097	CLB	EET CHI	11/28/23 21:19
Total/NA	Analysis	SM 4500 CI- E		2	745131	TR	EET CHI	12/04/23 18:44
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:31
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:19

Eurofins Chicago



# Lab Chronicle

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

Job ID: 500-243011-1

**Client Sample ID: MW-02**  
**Date Collected: 11/28/23 09:17**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 19:53
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:47
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:35
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 22:51
Total/NA	Analysis	SM 4500 CI- E		2	745043	TR	EET CHI	12/04/23 16:52
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:35
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:18

**Client Sample ID: MW-09**  
**Date Collected: 11/28/23 13:59**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 19:56
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:51
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:37
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 22:53
Total/NA	Analysis	SM 4500 CI- E		10	745043	TR	EET CHI	12/04/23 16:52
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:40
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:18

**Client Sample ID: MW-11**  
**Date Collected: 11/28/23 11:18**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 19:59
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:55
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:40
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 22:56
Total/NA	Analysis	SM 4500 CI- E		2	745043	TR	EET CHI	12/04/23 16:52
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:45
Total/NA	Analysis	SM 4500 SO4 E		2	744844	TR	EET CHI	12/03/23 13:19

# Lab Chronicle

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

Job ID: 500-243011-1

**Client Sample ID: MW-14**  
**Date Collected: 11/28/23 12:35**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-7**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 20:03
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 18:59
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:42
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 22:58
Total/NA	Analysis	SM 4500 Cl- E		1	745043	TR	EET CHI	12/04/23 16:52
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:50
Total/NA	Analysis	SM 4500 SO4 E		1	744844	TR	EET CHI	12/03/23 13:03

**Client Sample ID: MW-16**  
**Date Collected: 11/28/23 10:10**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 20:06
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 19:02
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:48
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 23:01
Total/NA	Analysis	SM 4500 Cl- E		1	745043	TR	EET CHI	12/04/23 16:53
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 17:55
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:19

**Client Sample ID: Duplicate**  
**Date Collected: 11/28/23 00:00**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 20:10
Total Recoverable	Prep	3005A			747410	MC	EET CHI	12/19/23 18:32 - 12/19/23 23:32 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 19:06
Total/NA	Prep	7470A			746502	MJG	EET CHI	12/13/23 10:25 - 12/13/23 12:25 <sup>1</sup>
Total/NA	Analysis	7470A		1	746723	MJG	EET CHI	12/14/23 08:50
Total/NA	Analysis	SM 2540C		1	744338	CLB	EET CHI	11/29/23 23:04
Total/NA	Analysis	SM 4500 Cl- E		1	745043	TR	EET CHI	12/04/23 16:43
Total/NA	Analysis	SM 4500 F C		1	745789	SO	EET CHI	12/07/23 18:26
Total/NA	Analysis	SM 4500 SO4 E		10	744844	TR	EET CHI	12/03/23 13:19

<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: 500-243011-1

**Laboratory References:**

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

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- 2
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# Accreditation/Certification Summary

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

Job ID: 500-243011-1

## 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 1/3/2024 7:50:12 AM

## JOB DESCRIPTION

Waukegan CCR (RAD)

## JOB NUMBER

500-243011-2

# 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  
Diana Mockler, Project Manager I  
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# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Method Summary . . . . .	5
Sample Summary . . . . .	6
Client Sample Results . . . . .	7
Definitions . . . . .	16
QC Association . . . . .	17
QC Sample Results . . . . .	18
Chain of Custody . . . . .	21
Receipt Checklists . . . . .	27
Chronicle . . . . .	30
Certification Summary . . . . .	33
Tracer Carrier Summary . . . . .	34

# Case Narrative

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

Job ID: 500-243011-2

**Job ID: 500-243011-2**

**Eurofins Chicago**

**Job Narrative**  
**500-243011-2**

## Receipt

The samples were received on 11/28/2023 9:30 AM and 11/29/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 4.4°C and 5.3°C

## Gas Flow Proportional Counter

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

## Rad

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: 500-243011-2

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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- 2
- 3
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- 14

# Sample Summary

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

Job ID: 500-243011-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-243011-1	MW-01	Water	11/27/23 12:12	11/28/23 09:30
500-243011-2	MW-03	Water	11/27/23 14:34	11/28/23 09:30
500-243011-3	MW-04	Water	11/27/23 13:22	11/28/23 09:30
500-243011-4	MW-02	Water	11/28/23 09:17	11/29/23 09:30
500-243011-5	MW-09	Water	11/28/23 13:59	11/29/23 09:30
500-243011-6	MW-11	Water	11/28/23 11:18	11/29/23 09:30
500-243011-7	MW-14	Water	11/28/23 12:35	11/29/23 09:30
500-243011-8	MW-16	Water	11/28/23 10:10	11/29/23 09:30
500-243011-9	Duplicate	Water	11/28/23 00:00	11/29/23 09:30

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- 14



# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-01**

**Lab Sample ID: 500-243011-1**

Date Collected: 11/27/23 12:12

Matrix: Water

Date Received: 11/28/23 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	<0.152	U	0.0962	0.0966	1.00	0.152	pCi/L	11/30/23 09:53	12/27/23 14:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					11/30/23 09:53	12/27/23 14:34	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	<0.560	U	0.362	0.364	1.00	0.560	pCi/L	11/30/23 10:01	12/22/23 11:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					11/30/23 10:01	12/22/23 11:14	1
Y Carrier	80.7		30 - 110					11/30/23 10:01	12/22/23 11:14	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	<0.560	U	0.375	0.377	5.00	0.560	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-03**  
**Date Collected: 11/27/23 14:34**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	<0.159	U	0.0935	0.0937	1.00	0.159	pCi/L	11/30/23 09:53	12/27/23 14:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		30 - 110					11/30/23 09:53	12/27/23 14:34	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	<0.648	U	0.411	0.413	1.00	0.648	pCi/L	11/30/23 10:01	12/22/23 11:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		30 - 110					11/30/23 10:01	12/22/23 11:14	1
Y Carrier	83.0		30 - 110					11/30/23 10:01	12/22/23 11:14	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	<0.648	U	0.422	0.423	5.00	0.648	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-04**

**Lab Sample ID: 500-243011-3**

Date Collected: 11/27/23 13:22

Matrix: Water

Date Received: 11/28/23 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	<0.156	U	0.104	0.104	1.00	0.156	pCi/L	11/30/23 09:53	12/27/23 14:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110					11/30/23 09:53	12/27/23 14:34	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	<0.546	U	0.362	0.365	1.00	0.546	pCi/L	11/30/23 10:01	12/22/23 11:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110					11/30/23 10:01	12/22/23 11:15	1
Y Carrier	83.4		30 - 110					11/30/23 10:01	12/22/23 11:15	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>0.642</b>		0.377	0.380	5.00	0.546	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-02**  
Date Collected: 11/28/23 09:17  
Date Received: 11/29/23 09:30

**Lab Sample ID: 500-243011-4**  
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	<0.204	U	0.105	0.105	1.00	0.204	pCi/L	12/01/23 09:46	12/29/23 07:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		30 - 110					12/01/23 09:46	12/29/23 07:36	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	<0.557	U	0.341	0.342	1.00	0.557	pCi/L	12/01/23 09:56	12/27/23 11:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.3		30 - 110					12/01/23 09:56	12/27/23 11:33	1
Y Carrier	72.1		30 - 110					12/01/23 09:56	12/27/23 11:33	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	<0.557	U	0.357	0.358	5.00	0.557	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-09**

**Lab Sample ID: 500-243011-5**

Date Collected: 11/28/23 13:59

Matrix: Water

Date Received: 11/29/23 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	0.289		0.167	0.169	1.00	0.221	pCi/L	12/01/23 09:46	12/29/23 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		30 - 110					12/01/23 09:46	12/29/23 09:18	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	<0.539	U	0.340	0.342	1.00	0.539	pCi/L	12/01/23 09:56	12/27/23 11:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		30 - 110					12/01/23 09:56	12/27/23 11:33	1
Y Carrier	74.4		30 - 110					12/01/23 09:56	12/27/23 11:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.652		0.379	0.381	5.00	0.539	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-11**

**Lab Sample ID: 500-243011-6**

Date Collected: 11/28/23 11:18

Matrix: Water

Date Received: 11/29/23 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>0.358</b>		0.171	0.174	1.00	0.198	pCi/L	12/01/23 09:46	12/29/23 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110					12/01/23 09:46	12/29/23 09:18	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>2.01</b>		0.544	0.575	1.00	0.600	pCi/L	12/01/23 09:56	12/27/23 11:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.8		30 - 110					12/01/23 09:56	12/27/23 11:33	1
Y Carrier	75.5		30 - 110					12/01/23 09:56	12/27/23 11:33	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>		0.570	0.601	5.00	0.600	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-14**  
**Date Collected: 11/28/23 12:35**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-7**  
**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
Radium-226	<0.320	U	0.166	0.166	1.00	0.320	pCi/L	12/01/23 09:46	12/29/23 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					12/01/23 09:46	12/29/23 09:18	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>0.885</b>		0.489	0.496	1.00	0.689	pCi/L	12/01/23 09:56	12/27/23 11:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					12/01/23 09:56	12/27/23 11:33	1
Y Carrier	83.0		30 - 110					12/01/23 09:56	12/27/23 11:33	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>0.914</b>		0.516	0.523	5.00	0.689	pCi/L		01/02/24 16:50	1

# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: MW-16**  
**Date Collected: 11/28/23 10:10**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-8**  
**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	<0.230	U	0.159	0.161	1.00	0.230	pCi/L	12/01/23 09:46	12/29/23 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110					12/01/23 09:46	12/29/23 09:18	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	<0.457	U	0.302	0.305	1.00	0.457	pCi/L	12/01/23 09:56	12/27/23 11:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		30 - 110					12/01/23 09:56	12/27/23 11:33	1
Y Carrier	87.1		30 - 110					12/01/23 09:56	12/27/23 11:33	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>0.615</b>		0.341	0.345	5.00	0.457	pCi/L		01/02/24 16:50	1



# Client Sample Results

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

Job ID: 500-243011-2

**Client Sample ID: Duplicate**  
Date Collected: 11/28/23 00:00  
Date Received: 11/29/23 09:30

**Lab Sample ID: 500-243011-9**  
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	<0.181	U	0.122	0.122	1.00	0.181	pCi/L	12/01/23 09:46	12/29/23 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		30 - 110					12/01/23 09:46	12/29/23 09:18	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>0.891</b>		0.366	0.375	1.00	0.471	pCi/L	12/01/23 09:56	12/27/23 11:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.5		30 - 110					12/01/23 09:56	12/27/23 11:33	1
Y Carrier	84.1		30 - 110					12/01/23 09:56	12/27/23 11:33	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>1.03</b>		0.386	0.394	5.00	0.471	pCi/L		01/02/24 16:50	1

# Definitions/Glossary

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

Job ID: 500-243011-2

## 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: 500-243011-2

## Rad

### Prep Batch: 638914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	PrecSep-21	
500-243011-2	MW-03	Total/NA	Water	PrecSep-21	
500-243011-3	MW-04	Total/NA	Water	PrecSep-21	
MB 160-638914/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-638914/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-243011-2 DU	MW-03	Total/NA	Water	PrecSep-21	

### Prep Batch: 638915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-1	MW-01	Total/NA	Water	PrecSep_0	
500-243011-2	MW-03	Total/NA	Water	PrecSep_0	
500-243011-3	MW-04	Total/NA	Water	PrecSep_0	
MB 160-638915/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-638915/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-243011-2 DU	MW-03	Total/NA	Water	PrecSep_0	

### Prep Batch: 639124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-4	MW-02	Total/NA	Water	PrecSep-21	
500-243011-5	MW-09	Total/NA	Water	PrecSep-21	
500-243011-6	MW-11	Total/NA	Water	PrecSep-21	
500-243011-7	MW-14	Total/NA	Water	PrecSep-21	
500-243011-8	MW-16	Total/NA	Water	PrecSep-21	
500-243011-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-639124/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-639124/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 639126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-243011-4	MW-02	Total/NA	Water	PrecSep_0	
500-243011-5	MW-09	Total/NA	Water	PrecSep_0	
500-243011-6	MW-11	Total/NA	Water	PrecSep_0	
500-243011-7	MW-14	Total/NA	Water	PrecSep_0	
500-243011-8	MW-16	Total/NA	Water	PrecSep_0	
500-243011-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-639126/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-639126/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

# QC Sample Results

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

Job ID: 500-243011-2

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

**Lab Sample ID: MB 160-638914/1-A**  
**Matrix: Water**  
**Analysis Batch: 642137**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 638914**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.125	U	0.0882	0.0889	1.00	0.125	pCi/L	11/30/23 09:53	12/27/23 09:48	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	30 - 110					11/30/23 09:53	12/27/23 09:48	1
	87.8									

**Lab Sample ID: LCS 160-638914/2-A**  
**Matrix: Water**  
**Analysis Batch: 642353**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 638914**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.50		1.11	1.00	0.120	pCi/L	93	75 - 125
Carrier	LCS	LCS	Limits						
Ba Carrier	%Yield	Qualifier	30 - 110						
	99.5								

**Lab Sample ID: 500-243011-2 DU**  
**Matrix: Water**  
**Analysis Batch: 642137**

**Client Sample ID: MW-03**  
**Prep Type: Total/NA**  
**Prep Batch: 638914**

Analyte	Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Sample Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	<0.159	U	<0.121	U	0.0762	1.00	0.121	pCi/L	0.03	1
Carrier	DU	DU	Limits							
Ba Carrier	%Yield	Qualifier	30 - 110							
	96.0									

**Lab Sample ID: MB 160-639124/1-A**  
**Matrix: Water**  
**Analysis Batch: 642235**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 639124**

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	<0.168	U	0.0735	0.0735	1.00	0.168	pCi/L	12/01/23 09:46	12/28/23 17:05	1
Carrier	MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	MB Qualifier	30 - 110					12/01/23 09:46	12/28/23 17:05	1
	89.3									

**Lab Sample ID: LCS 160-639124/2-A**  
**Matrix: Water**  
**Analysis Batch: 642706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 639124**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.05		1.16	1.00	0.111	pCi/L	98	75 - 125

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# QC Sample Results

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

Job ID: 500-243011-2

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

Lab Sample ID: LCS 160-639124/2-A  
Matrix: Water  
Analysis Batch: 642706

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 639124

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		30 - 110

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

Lab Sample ID: MB 160-638915/1-A  
Matrix: Water  
Analysis Batch: 641882

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 638915

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5367		0.358	0.361	1.00	0.530	pCi/L	11/30/23 10:01	12/22/23 11:07	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					11/30/23 10:01	12/22/23 11:07	1
Y Carrier	81.5		30 - 110					11/30/23 10:01	12/22/23 11:07	1

Lab Sample ID: LCS 160-638915/2-A  
Matrix: Water  
Analysis Batch: 641882

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 638915

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.38	8.483		1.17	1.00	0.498	pCi/L	90	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	99.5		30 - 110						
Y Carrier	81.9		30 - 110						

Lab Sample ID: 500-243011-2 DU  
Matrix: Water  
Analysis Batch: 641897

Client Sample ID: MW-03  
Prep Type: Total/NA  
Prep Batch: 638915

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	<0.648	U	<0.585	U	0.309	1.00	0.585	pCi/L	0.73	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	96.0		30 - 110							
Y Carrier	83.4		30 - 110							

Lab Sample ID: MB 160-639126/1-A  
Matrix: Water  
Analysis Batch: 641942

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 639126

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	<0.529	U	0.350	0.353	1.00	0.529	pCi/L	12/01/23 09:56	12/27/23 11:29	1

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# QC Sample Results

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

Job ID: 500-243011-2

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

**Lab Sample ID: MB 160-639126/1-A**  
**Matrix: Water**  
**Analysis Batch: 641942**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 639126**

Carrier	MB MB		Limits
	%Yield	Qualifier	
Ba Carrier	89.3		30 - 110
Y Carrier	81.5		30 - 110

Prepared	Analyzed	Dil Fac
12/01/23 09:56	12/27/23 11:29	1
12/01/23 09:56	12/27/23 11:29	1

**Lab Sample ID: LCS 160-639126/2-A**  
**Matrix: Water**  
**Analysis Batch: 641942**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 639126**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec
									Limits
Radium-228	9.36	10.57		1.37	1.00	0.447	pCi/L	113	75 - 125

Carrier	LCS LCS		Limits
	%Yield	Qualifier	
Ba Carrier	95.3		30 - 110
Y Carrier	81.9		30 - 110





# Chain of Custody Record

541622



Environment Testing  
TestAmerica

Address \_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other

TAL-8210

<b>Client Contact</b> Company Name <u>KPRG and Associates</u> Address <u>14145 W. Lisbon Rd, Ste 2A</u> City/State/Zip <u>Brookfield, WI 53005</u> Phone <u>262-781-0475</u> Fax _____ Project Name <u>Midwest Generation-</u> Site <u>Waukegan CCR</u> PO# <u>4502140739</u>		<b>Project Manager: Diana Mockler</b> Tel/Email: <u>diana.mockler@eurofins.us</u> <b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <u>Standard</u> <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact</b> Date: _____ Carrier: _____ Lab Contact: _____ COC No _____ of _____ COCs Sampler _____ For Lab Use Only: Walk-in Client <input type="checkbox"/> Lab Sampling <input type="checkbox"/> Job / SDG No <u>500-243011</u> Sample Specific Notes _____								
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Res.v.v.m. <u>ILG/ILG</u>	Total Metals	Total Cl, Fl, SO <sub>4</sub> , TDS	500-243011 COC
4 5 6 7 8 9		<u>MW-02</u>	<u>11/28/23</u>	<u>0917</u>	<u>G</u>	<u>Water</u>	<u>5</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
		<u>MW-09</u>	↓	<u>1359</u>	↓	↓	↓	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
		<u>MW-11</u>	↓	<u>1118</u>	↓	↓	↓	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
		<u>MW-14</u>	↓	<u>1235</u>	↓	↓	↓	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
		<u>MW-16</u>	↓	<u>1010</u>	↓	↓	↓	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
		<u>Duplicate</u>	<u>11/28/23</u>	<u>-</u>	<u>G</u>	<u>Water</u>	<u>5</u>	<u>N</u>	<u>X</u>	<u>X</u>	<u>X</u>	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other <u>NONE</u>		446										
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input checked="" type="checkbox"/> Non Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments: 4.6 → 4.4, 5.5 → 5.3												
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd _____ Cor'd _____		Therm ID No _____						
Relinquished by <u>Jack Trisnet</u>		Company <u>KPRG</u>		Date/Time <u>11/28/23 1715</u>		Received by _____		Company _____		Date/Time _____		
Relinquished by _____		Company _____		Date/Time _____		Received by _____		Company _____		Date/Time _____		
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>Shirley Scott</u>		Company <u>ETA</u>		Date/Time <u>11/29/23 0930</u>		



ORIGIN ID: FEPA (262) 278-1621  
KPRG AND ASSOCIATES  
KPRG AND ASSOCIATES  
414 PLAZA DR STE 106

SHIP DATE: 27NOV23  
ACTWGT: 53.45 LB  
CAD: 6994085/SSFE2460  
DIMS: 26x14x13 IN

WESTMONT, IL 60559  
UNITED STATES US

BILL THIRD PARTY

TO **SAMPLE RECIEVING**  
**EUROFINS CHICAGO**  
**2417 BOND ST**



**UNIVERSITY PARK IL 60484**

500-243011 Waybi

(999) 999-9999  
INV:  
PO:

REF:

DEPT:



**FedEx**  
Express



AN1091013208227

1 of 2

TRK# 7870 3959 1797  
0201  
## MASTER ##

**79 JOTA**

TUE - 28 NOV 12:00P  
PRIORITY OVERNIGHT

AHS  
60484

IL-US ORD



ST 21  
1797  
11.28

RT 519  
S  
A 12:00

Part # 166287435 HFD03 Exp 07/24

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

SHIP DATE: 28NOV23  
ACTWGT: 53.90 LB  
CAD: 6994084/SSFE2460  
DIMS: 26x14x14 IN  
BILL THIRD PARTY

Part # 156297-435 RRDB EXP 07/24

TO EUROFINS CHICAGO

2417 BOND ST



500-243011 Waybi

UNIVERSITY PARK

(999) 999-9999  
INU:  
PO:

RT 519 5 12:00 A



ST 23

3674  
11.29

FedEx  
Express

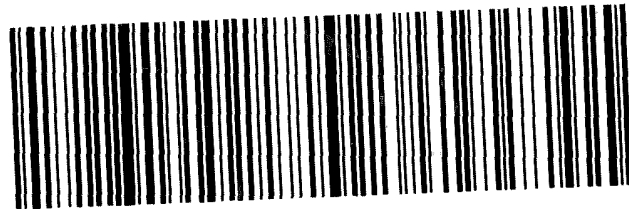


REL#  
3785346

1 of 5  
TRK# 7871 3235 3674  
0201  
## MASTER ##

79 JOTA

WED - 29 NOV 12:00P  
PRIORITY OVERNIGHT  
AHS  
60484  
IL-US ORD



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

SHIP DATE: 28NOV23  
ACTWGT: 52.85 LB  
CAD: 6994084/SSFE2460  
DIMS: 26x14x14 IN

WESTMONT, IL 60559  
UNITED STATES US

BILL THIRD PARTY

TO EUROFINS CHICAGO

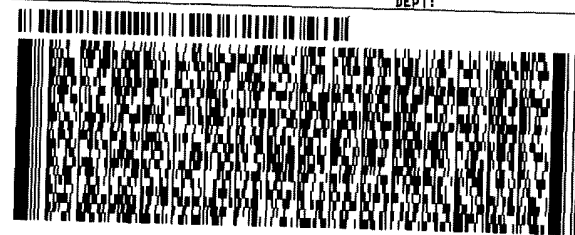
2417 BOND ST

UNIVERSITY PARK IL 60484

(999) 999-9999  
INU:  
PO:

REF:

DEPT:



FedEx  
Express



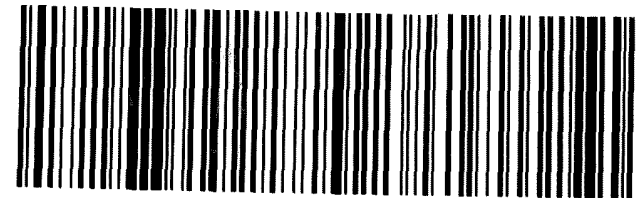
REL#  
3785346

4 of 5  
MPS# 7871 3235 3700  
0263  
Mstr# 7871 3235 3674

0201

79 JOTA

WED - 29 NOV 12:00P  
PRIORITY OVERNIGHT  
AHS  
60484  
IL-US ORD



Part # 156297-435 RRDB EXP 07/24

1  
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14



<b>Client Information (Sub Contract Lab)</b>		Sampler: Mockler, Diana J		Carrier Tracking No(s): 500-182066.1		
Client Contact: Diana.Mockler@et.eurofins.com		E-Mail: Diana.Mockler@et.eurofins.com		Page: 1 of 1		
Shipping/Receiving		State of Origin: Illinois		Job #: 500-243011-2		
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 12/18/2023		Analysis Requested		
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):		Total Number of Containers		
Email:		PO #:		Field Filtered Sample (Yes or No)		
WO #:		Project #:		Perform MS/MSD (Yes or No)		
Project Name: Waukegan CCR (RAD)		50011597		903.0/PreSep_21 Standard Target List		
Site: NRG Midwest Generation Waukegan		SSOW#:		904.0/PreSep_0 Standard Target List		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Organic, etc)	Preservation Code:
MW-01 (500-243011-1)	11/27/23	12:12 Central	Water	X	X	X
MW-03 (500-243011-2)	11/27/23	14:34 Central	Water	X	X	X
MW-04 (500-243011-3)	11/27/23	13:22 Central	Water	X	X	X
Special Instructions/Note: Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume. Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume. Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.						

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

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

Empty Kit Relinquished by: Date: 11/28/23 14:40  
Relinquished by: Date/Time: Received by: M. Piretto  
Relinquished by: Date/Time: Received by: Date/Time: NOV 29 2023 0930  
Custody Seal No.: Custody Seal No.:  
Cooler Temperature(s) °C and Other Remarks:

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

# Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking No(s):
Client Contact: Shipping/Receiving		Mockler, Diana J	COC No 500-182128-1
Company: TestAmerica Laboratories, Inc.		E-Mail: Diana.Mockler@et.eurofins.com	Page: Page 1 of 1
Address: 13715 Rider Trail North, Earth City Slate, Zip MO, 63045		State of Origin: Illinois	Job # 500-243011-1
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		Accreditations Required (See note): NELAP - Illinois	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AshNo2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:
Due Date Requested: 12/18/2023		Analysis Requested	
TAT Requested (days):		Total Number of Containers	
PO #	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note:
WO #	Field Filled Sample (Yes or No)	903.0/PrecSep_21 Standard Target List	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
Project #	Matrix (Weaver, Searoll, Omasroll, or Tissue, A&A)	904.0/PrecSep_0 Standard Target List	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
SSOW#	Sample Type (C=comp, G=grab)	Ra26Ra228 GPCC	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
Sample Date	Sample Time	Preservation Code:	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
11/28/23	09:17 Central	Water	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
11/28/23	13:59 Central	Water	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
11/28/23	11:18 Central	Water	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
11/28/23	12:35 Central	Water	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
11/28/23	10:10 Central	Water	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
11/28/23	Central	Water	Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume.
Duplicate (500-243011-9)	Central	Water	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/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: *Alvin Smith* Date: 11/29/23 1330  
 Relinquished by: *M. Pinette* Date: NOV 30 2023 0915  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No  
 Cooler Temperature(s) °C and Other Remarks:

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



# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-243011-2

**Login Number: 243011**

**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	1.0,4.4,5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-243011-2

**Login Number: 243011**

**List Number: 2**

**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**

**List Creation: 11/29/23 12:04 PM**

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

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-243011-2

**Login Number: 243011**

**List Number: 3**

**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**

**List Creation: 11/30/23 02:06 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: 500-243011-2

**Client Sample ID: MW-01**  
**Date Collected: 11/27/23 12:12**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			638914	KAC	EET SL	11/30/23 09:53
Total/NA	Analysis	903.0		1	642137	FLC	EET SL	12/27/23 14:34
Total/NA	Prep	PrecSep_0			638915	KAC	EET SL	11/30/23 10:01
Total/NA	Analysis	904.0		1	641897	SCB	EET SL	12/22/23 11:14
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**Client Sample ID: MW-03**  
**Date Collected: 11/27/23 14:34**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			638914	KAC	EET SL	11/30/23 09:53
Total/NA	Analysis	903.0		1	642137	FLC	EET SL	12/27/23 14:34
Total/NA	Prep	PrecSep_0			638915	KAC	EET SL	11/30/23 10:01
Total/NA	Analysis	904.0		1	641897	SCB	EET SL	12/22/23 11:14
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**Client Sample ID: MW-04**  
**Date Collected: 11/27/23 13:22**  
**Date Received: 11/28/23 09:30**

**Lab Sample ID: 500-243011-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			638914	KAC	EET SL	11/30/23 09:53
Total/NA	Analysis	903.0		1	642137	FLC	EET SL	12/27/23 14:34
Total/NA	Prep	PrecSep_0			638915	KAC	EET SL	11/30/23 10:01
Total/NA	Analysis	904.0		1	641897	SCB	EET SL	12/22/23 11:15
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**Client Sample ID: MW-02**  
**Date Collected: 11/28/23 09:17**  
**Date Received: 11/29/23 09:30**

**Lab Sample ID: 500-243011-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639124	KAC	EET SL	12/01/23 09:46
Total/NA	Analysis	903.0		1	642534	FLC	EET SL	12/29/23 07:36
Total/NA	Prep	PrecSep_0			639126	KAC	EET SL	12/01/23 09:56
Total/NA	Analysis	904.0		1	641942	FLC	EET SL	12/27/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50



# Lab Chronicle

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

Job ID: 500-243011-2

**Client Sample ID: MW-09**

**Lab Sample ID: 500-243011-5**

Date Collected: 11/28/23 13:59

Matrix: Water

Date Received: 11/29/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639124	KAC	EET SL	12/01/23 09:46
Total/NA	Analysis	903.0		1	642534	FLC	EET SL	12/29/23 09:18
Total/NA	Prep	PrecSep_0			639126	KAC	EET SL	12/01/23 09:56
Total/NA	Analysis	904.0		1	641942	FLC	EET SL	12/27/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**Client Sample ID: MW-11**

**Lab Sample ID: 500-243011-6**

Date Collected: 11/28/23 11:18

Matrix: Water

Date Received: 11/29/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639124	KAC	EET SL	12/01/23 09:46
Total/NA	Analysis	903.0		1	642534	FLC	EET SL	12/29/23 09:18
Total/NA	Prep	PrecSep_0			639126	KAC	EET SL	12/01/23 09:56
Total/NA	Analysis	904.0		1	641942	FLC	EET SL	12/27/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**Client Sample ID: MW-14**

**Lab Sample ID: 500-243011-7**

Date Collected: 11/28/23 12:35

Matrix: Water

Date Received: 11/29/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639124	KAC	EET SL	12/01/23 09:46
Total/NA	Analysis	903.0		1	642534	FLC	EET SL	12/29/23 09:18
Total/NA	Prep	PrecSep_0			639126	KAC	EET SL	12/01/23 09:56
Total/NA	Analysis	904.0		1	641942	FLC	EET SL	12/27/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**Client Sample ID: MW-16**

**Lab Sample ID: 500-243011-8**

Date Collected: 11/28/23 10:10

Matrix: Water

Date Received: 11/29/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			639124	KAC	EET SL	12/01/23 09:46
Total/NA	Analysis	903.0		1	642534	FLC	EET SL	12/29/23 09:18
Total/NA	Prep	PrecSep_0			639126	KAC	EET SL	12/01/23 09:56
Total/NA	Analysis	904.0		1	641942	FLC	EET SL	12/27/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

# Lab Chronicle

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

Job ID: 500-243011-2

**Client Sample ID: Duplicate**

**Lab Sample ID: 500-243011-9**

**Date Collected: 11/28/23 00:00**

**Matrix: Water**

**Date Received: 11/29/23 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			639124	KAC	EET SL	12/01/23 09:46
Total/NA	Analysis	903.0		1	642534	FLC	EET SL	12/29/23 09:18
Total/NA	Prep	PrecSep_0			639126	KAC	EET SL	12/01/23 09:56
Total/NA	Analysis	904.0		1	641942	FLC	EET SL	12/27/23 11:33
Total/NA	Analysis	Ra226_Ra228		1	642742	EMH	EET SL	01/02/24 16:50

**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: 500-243011-2

## Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24

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

# Tracer/Carrier Summary

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

Job ID: 500-243011-2

## 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)
500-243011-1	MW-01	83.3
500-243011-2	MW-03	80.8
500-243011-2 DU	MW-03	96.0
500-243011-3	MW-04	90.3
500-243011-4	MW-02	91.3
500-243011-5	MW-09	89.1
500-243011-6	MW-11	86.8
500-243011-7	MW-14	87.3
500-243011-8	MW-16	85.8
500-243011-9	Duplicate	94.5
LCS 160-638914/2-A	Lab Control Sample	99.5
LCS 160-639124/2-A	Lab Control Sample	95.3
MB 160-638914/1-A	Method Blank	87.8
MB 160-639124/1-A	Method Blank	89.3

#### 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)
500-243011-1	MW-01	83.3	80.7
500-243011-2	MW-03	80.8	83.0
500-243011-2 DU	MW-03	96.0	83.4
500-243011-3	MW-04	90.3	83.4
500-243011-4	MW-02	91.3	72.1
500-243011-5	MW-09	89.1	74.4
500-243011-6	MW-11	86.8	75.5
500-243011-7	MW-14	87.3	83.0
500-243011-8	MW-16	85.8	87.1
500-243011-9	Duplicate	94.5	84.1
LCS 160-638915/2-A	Lab Control Sample	99.5	81.9
LCS 160-639126/2-A	Lab Control Sample	95.3	81.9
MB 160-638915/1-A	Method Blank	87.8	81.5
MB 160-639126/1-A	Method Blank	89.3	81.5

#### Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	11/27/23
Sample Name	MW-Ø1	Start Time	1124	
Condition of Well	Good			
Water Level	22.28	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics		
Volume Removed	11 gts	W L at Sample Time	22.32	
Method of Sample	Low-Flow	Sample Characteristics		
Sample Analysis	CCR, Permit	Sample Time	1212	
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)
1144	22.28	7.11	12.8	.521	7.99	145.4	4.66
1147	-	8.76	13.1	.524	5.47	106.3	4.18
<del>1150</del> 1200	-	8.70	13.1	.511	4.04	38.1	4.11
<del>1153</del> 1253	-	8.88	13.1	.505	3.18	-25.7	4.00
<del>1156</del> 1206	-	8.94	13.1	.500	2.81	-56.5	3.84
1159	-	8.98	13.0	.501	2.50	-80.3	3.89
1202	-	9.00	11.4	.502	2.27	-94.4	4.46
1205	-	9.00	12.8	.503	2.10	-102.4	3.92
1208	-	9.00	13.0	.503	1.98	-109.1	3.74

SAMPLING NOTES: Brought in YP50 to warm up. Resume at 1143

Sampler Name and Company:

KPRG and Associates

KCS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	11/28/23
Sample Name	MW-02	Start Time	0903	
Condition of Well	Good			
Water Level	22.19	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	9 qt	W L at Sample Time	Clear	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	CCR, Permit	Sample Time	0917	
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)
0904	22.19	7.40	12.7	.582	8.63	-50.4	11.66
0907	-	7.89	13.1	.568	6.79	-50.8	7.92
0910	-	7.78	13.1	.578	5.54	-46.8	5.67
0913	-	7.58	13.0	.598	4.62	-46.2	4.56

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	11/27/23
Sample Name	MW-03	Start Time	1405	
Condition of Well	Good			
Water Level	22.60	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics		
Volume Removed	11 qt	W L at Sample Time		
Method of Sample	Low-Flow	Sample Characteristics		
Sample Analysis	CCR, Permit	Sample Time	1434	
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)
1406	22.60	7.40	12.6	.516	9.29	93.4	5.16
1409	-	7.61	12.7	.456	6.39	77.3	9.22
1412	-	7.85	12.6	.445	4.21	47.3	4.86
1415	-	7.97	12.5	.449	3.48	19.5	4.32
1418	-	8.03	12.8	.459	2.97	-5.6	3.96
1421	-	8.05	12.7	.465	2.67	-22.5	3.87
1424	-	8.06	12.6	.469	2.42	-38.2	3.84
1427	-	8.08	12.8	.475	2.24	-47.3	3.64
1430	-	8.06	12.5	.485	2.11	-54.0	3.57

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	11/27/23
Sample Name	MW-04	Start Time	1307	
Condition of Well	Good			
Water Level	22.49	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics		
Volume Removed	4 qts	W L at Sample Time	22.50	
Method of Sample	Low-Flow	Sample Characteristics		
Sample Analysis	CCR, Permit	Sample Time	1322	
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)
1309	22.49	7.55	13.1	.566	8.35	-63.7	5.95
1312	-	7.57	13.1	.478	5.55	-59.2	7.72
1315	-	7.59	13.1	.477	4.40	-64.1	5.00
1318	-	7.63	13.1	.494	3.23	-74.1	4.22

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS



PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	11/28/23
Sample Name	MW-09	Start Time	1341	
Condition of Well	Good			
Water Level	11.03	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Slightly Cloudy	
Volume Removed	5.5 qt	W L at Sample Time	11.10	
Method of Sample	Low-Flow	Sample Characteristics	clear/Slightly Cloudy	
Sample Analysis	CCR, Permit	Sample Time	1359	
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)
1343	11.03	7.34	12.3	1.250	8.00	-23.1	97.77
1346	-	7.17	12.7	1.014	5.10	-78.6	68.80
1349	-	7.16	12.7	1.008	4.22	-87.2	56.52
1352	-	7.15	12.8	.994	3.23	-95.1	33.34
1355	-	7.15	12.7	.997	2.78	-98.7	27.24

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	11/28/23
Sample Name	MW-11	Start Time	1059	
Condition of Well	Good			
Water Level	6.31	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Clear	
Volume Removed	5 qt	W L at Sample Time	6.31	
Method of Sample	Low-Flow	Sample Characteristics	Clear	
Sample Analysis	E10C - Permit, CCR	Sample Time	1118	
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)
1102	6.31	7.00	13.1	1.174	7.11	-93.5	17.05
1105	-	6.99	13.1	1.172	5.09	-113.3	12.66
1108	-	7.00	13.1	1.160	3.08	-122.9	9.42
1111	-	7.01	13.1	1.154	3.17	-128.4	8.04
1114	-	7.02	13.1	1.146	2.66	-133.2	7.01

SAMPLING NOTES:

Sampler Name and Company:

KPRG and Associates

KLS

PROJECT NAME	NRG - WAUKEGAN STATION (12313.2)		DATE	11/28/23
Sample Name	MW -14	Start Time	1210	
Condition of Well	Good			
Water Level	5.82	Total Depth	-	
Well Diameter	PVC - 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	cloudy Brown/Orange	
Volume Removed	5 qt	W L at Sample Time	5.82	
Method of Sample	Low-Flow	Sample Characteristics	cloudy Brown/Orange	
Sample Analysis	CCR, Permit - EWC	Sample Time	1235	
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)
1222	5.82	7.26	11.4	.732	7.28	11.7	214.27
1225	-	7.15	11.3	.736	5.67	17.1	188.01
1228	-	7.12	11.3	.737	4.51	22.7	182.14
1231	-	7.12	11.0	.736	3.79	26.8	147.17
1236	-	7.13	10.5	.730	3.09	25.8	116.77
1239	-	7.07	11.0	.761	2.64	-0.4	59.35
1242	-	7.07	10.9	.773	2.34	-22.6	204.42
1245	-	7.06	10.9	.784	2.11	-35.6	301.02
1248	-	7.05	10.8	.796	1.90	-44.3	220.56

SAMPLING NOTES: Extra readings taken MP50 came unclipped from car battery

Sampler Name and Company:

KPRG and Associates

JCL

PROJECT NAME	NRG – WAUKEGAN STATION (12313.2)		DATE	11/28/23
Sample Name	MW-16	Start Time	0950	
Condition of Well	Good			
Water Level	<del>28.43</del> 27.43	Total Depth	-	
Well Diameter	PVC – 2 inch	Volume in Well	-	
Method of Purge	Low-Flow	Purge Characteristics	Slightly Cloudy	
Volume Removed	5.5 gts	W L at Sample Time	27.43	
Method of Sample	Low-Flow	Sample Characteristics	2 sl. cloudy, brown	
Sample Analysis	CCR	Sample Time	1010	
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)
0954	28.43	7.15	9.3	.913	9.17	69.5	8.47
0957	-	7.01	11.8	.955	5.80	-16.6	111.00
1000	-	7.08	12.0	.944	4.54	-31.7	86.76
1003	-	7.11	11.8	.935	3.46	-39.5	68.76
1006	-	7.14	11.9	.931	2.97	-45.0	45.54

SAMPLING NOTES: CCR Duplicate

Sampler Name and Company:

KPRG and Associates

KWS