

## DATA SUMMARY POSTING

Station: Midwest Generation Waukegan Generating Station

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

In accordance with the new Ill. Adm. Code Title 35, Part 845: Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments (State CCR Rule) groundwater monitoring was completed during the 3<sup>rd</sup> quarter 2021 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 as they will be calculated and proposed as part of the Operating Permit submittals due by October 31, 2021. Upon Illinois Environmental Protection Agency approval of the Operating Permit, the approved comparison values will be included for subsequent data comparisons/evaluations.

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

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	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	< 0.005	< 0.001	< 0.0005	0.081	< 0.0002	0.260	0.1818	< 0.0025	< 0.002	
	3/2/2016	35	380	720	0.11	7.02	970	2800	< 0.003	0.06	0.05	< 0.001	< 0.0005	0.043	< 0.001	0.00061	0.094	< 0.0002	0.51	< 0.36	0.025	< 0.002	
	5/3/2016	16	310	620	0.12	7.02	740	2500	< 0.003	0.0014	0.025	< 0.001	< 0.0005	< 0.005	< 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	0.042	0.024	< 0.001	0.0011	0.056	0.0027	0.0012	0.049	< 0.0002	0.063	0.482	0.039	< 0.002	
	12/8/2016	15	200	330	0.18	7.01	270	1300	< 0.003	0.004	0.016	< 0.001	0.00052	< 0.005	< 0.001	< 0.0005	0.077	< 0.0002	0.24	< 0.72	0.038	< 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	
	5/16/2017	27	160	67	0.29	8.15	420	970	< 0.003	< 0.001	0.0094	^< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.045	< 0.0002	0.51	< 0.342	0.0085	< 0.002	
	7/6/2017	21	220	430	0.13	7.18	610	1800	< 0.003	0.002	0.018	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.089	< 0.0002	0.31	< 0.316	0.021	< 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	
	11/29/2017	26	200	390	0.13	7.05	390	1600	< 0.003	0.0017	0.015	< ^ 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.086	< 0.0002	0.47	0.625	0.042	< 0.002	
	5/31/2018	32	200	290	0.1	6.85	490	1000	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
	5/15/2019	26	120	260	0.13	7.53	31	1000	< 0.003	< 0.001	0.0073	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.035	< 0.0002	0.54	< 0.433	< 0.0025	< 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
	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
	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
	5/6/2021	31	170	35	0.12	7.51	420	910	< 0.003	< 0.001	0.0075	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.04	< 0.0002	0.47	< 0.614	0.023	< 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	< 0.005	< ^+ 0.001	< 0.0015	0.066	< 0.0002	0.12	< 0.457	0.071	< ^+ 0.002	
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	< 0.005	< 0.001	0.001	0.055	< 0.0002	< 0.0050	0.656	< 0.0025	< 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	
	5/5/2016	5.0	140	280	0.11	7.17	160	1000	< 0.003	0.51	0.038	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.057	< 0.0002	< 0.005	1.24	< 0.0025	< 0.002	
	8/26/2016	3.5	180	240	0.13	6.97	110	1100	< 0.003	1.1	0.05	< 0.001	< 0.0005	0.0055	< 0.001	< 0.0005	0.055	< 0.0002	< 0.005	1.04	< 0.0025	< 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	< 0.005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.87	< 0.0025	< 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	< 0.005	< 0.001	< 0.0005	0.039	< 0.0002	< 0.005	0.982	< 0.0025	< 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	
	7/6/2017	2.4	160	190	0.14	7.33	130	1100	< 0.003	0.69	0.056	< 0.001	< 0.0005	0.0057	< 0.001	< 0.0005	0.041	< 0.0002	< 0.005	0.889	< 0.0025	< 0.002	
	9/13/2017	1.9	140	150	0.26	7.16	96	870	< 0.003	0.86	0.036	< 0.001	< 0.0005	0.008	< 0.001	0.00071	0.037	< 0.0002	0.0054	0.718	< 0.0025	< 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	< 0.005	< 0.001	< 0.0005	0.041	< 0.0002	< 0.005	1.21	< 0.0025	< 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
	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
	5/15/2019	3.2	120	260	0.13	7.14	31	1000	< 0.003	0.3	0.048	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.5	< 0.0025	< 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
	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
	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
	5/6/2021	2.4	130	120	0.15	7.13	45	770	< 0.003	0.44	0.044	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.038	< 0.0002	< 0.005	1.7	< 0.0025	< 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	
MW-14 up-gradient	11/5/2015	1.4	190	190	0.19	6.78	140	1000	< 0.003	0.19	0.052	^< 0.001	< 0.0005	0.01	< 0.0005	0.025	< 0.0002	< 0.005	0.7087	< 0.0025	< 0.002		
	3/2/2016	0.93	150	110	0.17	7.24	150	870	0.015	4.3	0.12	< 0.001	< 0.0005	1.1	0.0036	0.00068	0.019	< 0.0002	< 0.005	1.36	< 0.0025	< 0.002	
	5/5/2016	1.2	170	120	0.18	7.17	190	980	< 0.003	0.35	0.054	< 0.001	< 0.0005	0.017	0.0014	< 0.0005	0.021	< 0.0002	< 0.005	< 0.488	< 0.0025	< 0.002	
	8/26/2016	1.5	200	210	0.12	7.00	190	1300	< 0.003	1.0	0.058	< 0.001	< 0.0005	0.021	< 0.001	< 0.0005	0.026	< 0.0002	< 0.005	0.75	< 0.0025	< 0.002	
	12/7/2016	0.95	240	340	0.25	6.81	120	1100	0.0096	19	0.42	< 0.001	0.00089	4.6	0.0025	0.00084	0.022	< 0.0002	0.0094	< 0.866	0.014	< 0.002	
	2/23/2017	0.73	150	99	0.19	6.88	110	730	0.0061	9.3	0.36	< 0.001	0.001	4.6	0.0070	0.00095	0.017	< 0.0002	< 0.005	< 0.514	0.0031	< 0.002	
	5/18/2017	0.81	120	130	0.3	7.62	70	590	0.0035	3.3	0.44	^< 0.001	0.002	4.8	0.0041	0.00054	0.013	< 0.00043	< 0.005	< 0.779	< 0.0025	< 0.002	
	7/6/2017	1.2	190	180	0.13	7.29	190	1300	< 0.003	0.4	0.071	< 0.001	< 0.0005	0.026	0.0013	< 0.0005	0.034	< 0.0002	< 0.005	0.549	< 0.0025	< 0.002	
	9/13/2017	2.3	180	190	0.15	7.20	270	1200	< 0.003	0.52	0.065	< 0.001	< 0.0005	0.0078	< 0.001	< 0.0005	0.025	< 0.0002	< 0.005	< 0.359	< 0.0025	< 0.002	
	11/30/2017	0.85	170	130	0.19	7.33	99	940	0.0093	21	0.27	< ^ 0.001	0.00068	3.2	0.0021	< 0.0005	0.023	< 0.0002	0.0055	1.01	0.0072	< 0.002	
	6/1/2018	0.54	100	57	0.28	6.89	42	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2018	0.98	160	110	0.24	7.36	53	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/15/2019	0.69	110	190	0.23	7.25																	

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

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	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	0.4628	< 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	0.529	< 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	< 0.425	< 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	< 0.439	< 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	< 0.509	< 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	< 0.416	0.0038	< 0.002	
	5/15/2017	3.6	85	48	0.64	8.33	320	640	< 0.003	0.02	0.029	^< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.047	< 0.425	0.023	< 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	< 0.295	0.017	< 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	< 0.769	0.052	< 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	< 0.442	< 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	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	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	0.37	< 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	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	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	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	0.97	< 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	< 0.525	< 0.0025	<^+ 0.002	
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	0.071	< 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	< 0.332	0.0043	< 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	< 0.48	< 0.0025	< 0.002	
	8/24/2016	2.0	70	59	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	< 0.428	< 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	< 0.526	< 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	< 0.437	< 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	< 0.461	0.014	< 0.002	
	7/5/2017	3.0	60	60	0.28	7.46	200	470	< 0.003	0.0029	0.017	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.058	< 0.304	0.0045	< 0.002	
	9/14/2017	2.1	86	57	0.26	7.53	260	680	< 0.003	0.0024	0.026	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.010	< 0.0002	0.056	0.462	0.0081	< 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	1.17	< 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	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	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	0.657	0.0061	< 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	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	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	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	0.689	0.0065	< 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	0.656	< 0.0025	<^+ 0.002	
MW-04 down-gradient	11/3/2015	1.8	66	62	0.51	6.68	240	480	< 0.003	0.0066	0.032	^< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.031	< 0.2732	< 0.0025	< 0.002	
	3/1/2016	2.0	58	51	0.5	7.17	170	450	< 0.003	0.0083	0.033	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.048	0.478	< 0.0025	< 0.002	
	5/4/2016	1.6	44	49	0.61	6.92	140	340	< 0.003	0.0083	0.017	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.046	< 0.542	< 0.0025	< 0.002	
	8/24/2016	2.0	46	58	0.56	7.01	120	370	< 0.003	0.0099	0.019	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.049	< 0.461	< 0.0025	< 0.002	
	12/5/2016	3.4	200	60	0.21	7.40	300	1000	< 0.003	0.019	0.13	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0010	< 0.0005	< 0.01	< 0.0002	0.0097	1.04	< 0.02	< 0.002
	2/22/2017	2.4	150	41	0.17	7.44	290	850	< 0.003	0.036	0.093	< 0.001	< 0.0005	< 0.005	< 0.0010	< 0.0005	< 0.01	< 0.0002	0.015	0.886	0.0042	< 0.002	
	5/16/2017	2.5	170	29	0.32	7.94	400	970	< 0.003	0.024	0.072	^< 0.001	< 0.0005	< 0.005	< 0.0010	< 0.0005	< 0.01	< 0.0002	0.017	0.55	0.032	< 0.002	
	7/5/2017	3.6	200	51	0.29	7.09	520	1100	< 0.003	0.0034	0.076	< 0.001	< 0.0005	< 0.005	< 0.0010	< 0.0005	< 0.01	< 0.0002	0.017	0.515	0.062	< 0.002	
	9/14/2017	2.5	180	45	0.28	7.04	480	1100	< 0.003	0.0028	0.076	< 0.001	< 0.0005	< 0.005	< 0.0010	< 0.0005	< 0.01	< 0.0002	0.021	0.794	0.026	< 0.002	
	11/28/2017	2.3	110	32	0.28	7.04	130	560	< 0.003	0.0027	0.053	<^ 0.001	< 0.0005	< 0.005	< 0.0010	< 0.0005	< 0.01	< 0.0002	0.032	0.872	0.0069	< 0.002	
	5/30/2018	3.0	150	21	0.38	6.57	200	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2018	2.5	150	58	0.37	6.83	240																

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
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
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
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	3.6
	8/18/2021	2.33
	9/29/2021	3.03
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	4.2
	8/18/2021	9.03
	9/29/2021	3.42
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	2.6
	9/29/2021	2.82
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
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

## ANALYTICAL REPORT

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

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

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

Attn: Richard Gnat



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

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

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Method Summary . . . . .	4
Sample Summary . . . . .	5
Client Sample Results . . . . .	6
Definitions . . . . .	12
QC Association . . . . .	13
QC Sample Results . . . . .	16
Chain of Custody . . . . .	20
Receipt Checklists . . . . .	24
Chronicle . . . . .	25
Certification Summary . . . . .	29

# Case Narrative

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

Job ID: 500-204027-1

---

## Job ID: 500-204027-1

---

Laboratory: Eurofins TestAmerica, Chicago

### Narrative

---

#### Job Narrative 500-204027-1

### Comments

No additional comments.

### Receipt

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

### Metals

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

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

### General Chemistry

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



# Method Summary

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

Job ID: 500-204027-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI

#### Protocol References:

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

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

#### Laboratory References:

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



# Sample Summary

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

Job ID: 500-204027-1

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

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

# Client Sample Results

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

Job ID: 500-204027-1

**Client Sample ID: MW-01**

**Lab Sample ID: 500-204027-1**

Date Collected: 08/18/21 11:51

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:34	1
<b>Arsenic</b>	<b>0.023</b>		0.0010		mg/L		08/26/21 08:04	08/26/21 18:34	1
<b>Barium</b>	<b>0.044</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:34	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:34	1
<b>Boron</b>	<b>2.7</b>		0.50		mg/L		08/26/21 08:04	08/28/21 14:23	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:34	1
<b>Calcium</b>	<b>72</b>		0.20		mg/L		08/26/21 08:04	08/26/21 18:34	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:34	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:34	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:34	1
<b>Molybdenum</b>	<b>0.021</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 18:34	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:34	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:34	1

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

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

**General Chemistry**

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

**Client Sample ID: MW-02**

**Lab Sample ID: 500-204027-2**

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:38	1
<b>Arsenic</b>	<b>0.0088</b>		0.0010		mg/L		08/26/21 08:04	08/26/21 18:38	1
<b>Barium</b>	<b>0.029</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:38	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:38	1
<b>Boron</b>	<b>4.1</b>		1.0		mg/L		08/26/21 08:04	08/28/21 14:27	20
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:38	1
<b>Calcium</b>	<b>84</b>		0.20		mg/L		08/26/21 08:04	08/26/21 18:38	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:38	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:38	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:38	1
<b>Molybdenum</b>	<b>0.021</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 18:38	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:38	1

Eurofins TestAmerica, Chicago

# Client Sample Results

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

Job ID: 500-204027-1

**Client Sample ID: MW-02**

**Lab Sample ID: 500-204027-2**

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

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

**General Chemistry**

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

**Client Sample ID: MW-03**

**Lab Sample ID: 500-204027-3**

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:42	1
<b>Arsenic</b>	<b>0.0061</b>		0.0010		mg/L		08/26/21 08:04	08/26/21 18:42	1
<b>Barium</b>	<b>0.041</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:42	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:42	1
<b>Boron</b>	<b>3.0</b>		0.50		mg/L		08/26/21 08:04	08/28/21 14:30	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:42	1
<b>Calcium</b>	<b>150</b>		0.20		mg/L		08/26/21 08:04	08/26/21 18:42	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:42	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:42	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:42	1
<b>Molybdenum</b>	<b>0.016</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 18:42	1
<b>Selenium</b>	<b>0.0088</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:42	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:42	1

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

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

**General Chemistry**

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

# Client Sample Results

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

Job ID: 500-204027-1

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

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

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:45	1
<b>Arsenic</b>	<b>0.0052</b>		0.0010		mg/L		08/26/21 08:04	08/26/21 18:45	1
<b>Barium</b>	<b>0.041</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:45	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:45	1
<b>Boron</b>	<b>3.0</b>		0.50		mg/L		08/26/21 08:04	08/28/21 14:34	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:45	1
<b>Calcium</b>	<b>92</b>		0.20		mg/L		08/26/21 08:04	08/26/21 18:45	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:45	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:45	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:45	1
<b>Molybdenum</b>	<b>0.045</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 18:45	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:45	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:45	1

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

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

**General Chemistry**

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

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

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

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:49	1
Arsenic	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:49	1
<b>Barium</b>	<b>0.024</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:49	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:49	1
<b>Boron</b>	<b>3.1</b>		0.50		mg/L		08/26/21 08:04	08/28/21 14:37	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:49	1
<b>Calcium</b>	<b>140</b>		0.20		mg/L		08/26/21 08:04	08/26/21 18:49	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:49	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:49	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:49	1
<b>Molybdenum</b>	<b>0.020</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 18:49	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:49	1

Eurofins TestAmerica, Chicago

# Client Sample Results

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

Job ID: 500-204027-1

**Client Sample ID: MW-16**

**Lab Sample ID: 500-204027-5**

Date Collected: 08/18/21 16:19

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

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

**General Chemistry**

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

**Client Sample ID: Duplicate**

**Lab Sample ID: 500-204027-6**

Date Collected: 08/18/21 00:00

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:52	1
Arsenic	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:52	1
<b>Barium</b>	<b>0.025</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 18:52	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:52	1
<b>Boron</b>	<b>3.1</b>		0.50		mg/L		08/26/21 08:04	08/28/21 14:41	10
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:52	1
<b>Calcium</b>	<b>140</b>		0.20		mg/L		08/26/21 08:04	08/26/21 18:52	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:52	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:52	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:52	1
<b>Molybdenum</b>	<b>0.021</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 18:52	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:52	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:52	1

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

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

**General Chemistry**

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

# Client Sample Results

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

Job ID: 500-204027-1

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

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

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:56	1
Arsenic	1.1		0.0010		mg/L		08/26/21 08:04	08/26/21 18:56	1
Barium	0.055		0.0025		mg/L		08/26/21 08:04	08/26/21 18:56	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:56	1
Boron	1.3		0.25		mg/L		08/26/21 08:04	08/28/21 14:44	5
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Calcium	140		0.20		mg/L		08/26/21 08:04	08/26/21 18:56	1
Chromium	0.0057		0.0050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:56	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Molybdenum	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:56	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:56	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 18:56	1

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

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

**General Chemistry**

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

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

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

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 18:59	1
Arsenic	3.3		0.0010		mg/L		08/26/21 08:04	08/26/21 18:59	1
Barium	0.046		0.0025		mg/L		08/26/21 08:04	08/26/21 18:59	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 18:59	1
Boron	0.48		0.050		mg/L		08/26/21 08:04	08/28/21 14:48	1
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Calcium	130		0.20		mg/L		08/26/21 08:04	08/26/21 18:59	1
Chromium	0.045		0.0050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 18:59	1
Lead	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Molybdenum	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 18:59	1
Selenium	<0.0025		0.0025		mg/L		08/26/21 08:04	08/26/21 18:59	1

Eurofins TestAmerica, Chicago

# Client Sample Results

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

Job ID: 500-204027-1

**Client Sample ID: MW-14**

**Lab Sample ID: 500-204027-8**

Date Collected: 08/19/21 12:39

Matrix: Water

Date Received: 08/20/21 09:30

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

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

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

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

**General Chemistry**

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

**Client Sample ID: MW-09**

**Lab Sample ID: 500-204027-9**

Date Collected: 08/19/21 13:46

Matrix: Water

Date Received: 08/20/21 09:30

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

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Arsenic</b>	<b>0.0019</b>		0.0010		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Barium</b>	<b>0.015</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 19:03	1
Beryllium	<0.0010		0.0010		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Boron</b>	<b>7.2</b>		1.0		mg/L		08/26/21 08:04	08/28/21 14:58	20
Cadmium	<0.00050		0.00050		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Calcium</b>	<b>150</b>		0.20		mg/L		08/26/21 08:04	08/26/21 19:03	1
Chromium	<0.0050		0.0050		mg/L		08/26/21 08:04	08/26/21 19:03	1
Cobalt	<0.0010	^+	0.0010		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Lead</b>	<b>0.0015</b>		0.00050		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Molybdenum</b>	<b>0.12</b>		0.0050		mg/L		08/26/21 08:04	08/26/21 19:03	1
<b>Selenium</b>	<b>0.071</b>		0.0025		mg/L		08/26/21 08:04	08/26/21 19:03	1
Thallium	<0.0020	^+	0.0020		mg/L		08/26/21 08:04	08/26/21 19:03	1

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

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

**General Chemistry**

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

# Definitions/Glossary

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

Job ID: 500-204027-1

## Qualifiers

### Metals

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

### General Chemistry

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

## Glossary

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



# QC Association Summary

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

Job ID: 500-204027-1

## Metals

### Prep Batch: 615608

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

### Analysis Batch: 615765

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

### Prep Batch: 615969

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

### Analysis Batch: 616213

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

Eurofins TestAmerica, Chicago

# QC Association Summary

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

Job ID: 500-204027-1

## Metals (Continued)

### Analysis Batch: 616213 (Continued)

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

### Analysis Batch: 616465

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

### Analysis Batch: 618108

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

## General Chemistry

### Analysis Batch: 615182

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

# QC Association Summary

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

Job ID: 500-204027-1

## General Chemistry

### Analysis Batch: 615457

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

### Analysis Batch: 617314

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

### Analysis Batch: 617315

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

### Analysis Batch: 617517

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

Eurofins TestAmerica, Chicago

# QC Sample Results

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

Job ID: 500-204027-1

## Method: 6010C - Metals (ICP)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Eurofins TestAmerica, Chicago

# QC Sample Results

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

Job ID: 500-204027-1

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

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

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

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

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

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

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

## Method: 7470A - Mercury (CVAA)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# QC Sample Results

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

Job ID: 500-204027-1

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			09/03/21 14:08	1

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

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

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

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

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

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

# QC Sample Results

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

Job ID: 500-204027-1

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

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

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

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

## Method: SM 4500 F C - Fluoride

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

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			09/07/21 10:59	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.4		mg/L		104	90 - 119

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

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

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			09/03/21 13:07	1

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

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

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

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

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

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

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

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

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

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

Regulatory Program:  DW  NPDES  RCRA  Other:

TestAmerica Laboratories, Inc.

Client Contact KPRG and Associates Inc 14665 West Lisbon Road Suite 1A Brookfield WI 53154 (262) 781-0475 Phone (262) 781 0478 FAX Project Name Waukegan CCR Site Waukegan Station - Waukegan IL P O # 4502042830		Project Manager: Rich Gnat Tel/Fax (262) 781-0475		Site Contact: Mitchel Dolan Lab Contact: Diana Mockler		Date: 8/18/21 Carrier: FedEx		COC No ____ of ____ COCs						
		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y / N) 903 0 904.0 Radium 226/228 + Combine 6020A, 7470A 14 Metals & Mercury 6010C - Lithium 4500_F_C - Fluoride SM4500_CL_E - Chloride SM4500_SO4_E - Sulfate 2540C - TDS		500-204027 COC		Sampler For Lab Use Only: Walk-in Client Lab Sampling Job / SDG No 500-204027						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp G=Grab)	Matrix	# of Cont.	4	4	4	1	1	1	1	Sample Specific Notes
1	MW-01	8/18	1151	G	W	5	N	N	X	X	X	X	X	
2	MW-02	8/18	1249	G	W	5								
3	MW-03	8/18	1344	G	W	5								
4	MW-04	8/18	1450	G	W	5								
5	MW-16	8/18		G	W	5								
6	Duplicate	8/18	-	G	W	5			↓	↓	↓	↓	↓	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							4 4 4 1 1 1 1							
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown							Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months							
Special Instructions/QC Requirements & Comments: Appendix III and Appendix IV Parameters. 14 Metals for analysis = Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium										CCR 333.7				
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd		Corr'd		Therm ID No						
Relinquished by Mitchel Dolan <i>MDO</i>		Company KPRG		Date/Time 8/18/21 1730		Received by FedEx		Company		Date/Time 8/18/21 / 1730				
Relinquished by		Company		Date/Time		Received by		Company		Date/Time				
Relinquished by		Company		Date/Time		Received in Laboratory by Stephonell Hemmerdey		Company ETA-CHI		Date/Time 8/19/21 0925				



# Chain of Custody Record

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

Regulatory Program:  DW  NPDES  RCRA  Other

TestAmerica Laboratories, Inc.

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



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

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

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



500-204027 Wayb

TO

TEST AMERICA  
2417 BOND ST

UNIVERSITY PARK IL 60484

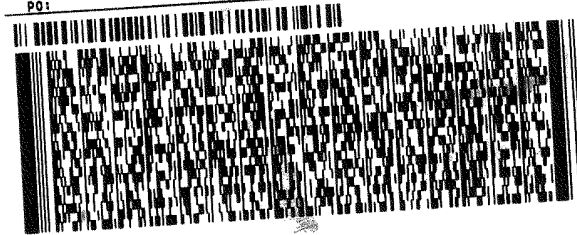
(708) 634-6200

REF:

DEPT:

INU:

PO:



FedEx  
Express



AN11001/211606147

3 of 3  
MPS# 2827 6233 9413  
0263  
Metr# 2827 6233 9398

0201

79 JOTA

FRI - 20 AUG 4:30P  
STANDARD OVERNIGHT

60484  
IL-US ORD



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

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-1

**Login Number: 204027**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Hernandez, Stephanie**

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



# Lab Chronicle

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

Job ID: 500-204027-1

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

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

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

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

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

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

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

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

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

Eurofins TestAmerica, Chicago

# Lab Chronicle

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

Job ID: 500-204027-1

## Client Sample ID: MW-03

Lab Sample ID: 500-204027-3

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

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

## Client Sample ID: MW-04

Lab Sample ID: 500-204027-4

Date Collected: 08/18/21 14:50

Matrix: Water

Date Received: 08/19/21 09:25

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

## Client Sample ID: MW-16

Lab Sample ID: 500-204027-5

Date Collected: 08/18/21 16:19

Matrix: Water

Date Received: 08/19/21 09:25

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

# Lab Chronicle

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

Job ID: 500-204027-1

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

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

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

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

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

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

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

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

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

Eurofins TestAmerica, Chicago



# Lab Chronicle

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

Job ID: 500-204027-1

**Client Sample ID: MW-14**

**Date Collected: 08/19/21 12:39**

**Date Received: 08/20/21 09:30**

**Lab Sample ID: 500-204027-8**

**Matrix: Water**

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

**Client Sample ID: MW-09**

**Date Collected: 08/19/21 13:46**

**Date Received: 08/20/21 09:30**

**Lab Sample ID: 500-204027-9**

**Matrix: Water**

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

**Laboratory References:**

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



# Accreditation/Certification Summary

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

Job ID: 500-204027-1

## Laboratory: Eurofins TestAmerica, Chicago

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

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

1

2

3

4

5

6

7

8

9

10

11

12

13

## ANALYTICAL REPORT

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

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

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

Attn: Richard Gnat



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

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

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Method Summary . . . . .	4
Sample Summary . . . . .	5
Client Sample Results . . . . .	6
Definitions . . . . .	12
QC Association . . . . .	13
QC Sample Results . . . . .	14
Chain of Custody . . . . .	17
Receipt Checklists . . . . .	23
Chronicle . . . . .	26
Certification Summary . . . . .	29
Tracer Carrier Summary . . . . .	30



# Case Narrative

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

Job ID: 500-204027-2

## Job ID: 500-204027-2

### Laboratory: Eurofins TestAmerica, Chicago

#### Narrative

#### Job Narrative 500-204027-2

#### Comments

No additional comments.

#### Receipt

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

#### RAD

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

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

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

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

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

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

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

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

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

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

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

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

# Method Summary

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

Job ID: 500-204027-2

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

#### Protocol References:

EPA = US Environmental Protection Agency

None = None

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

#### Laboratory References:

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

# Sample Summary

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

Job ID: 500-204027-2

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

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

# Client Sample Results

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

Job ID: 500-204027-2

**Client Sample ID: MW-01**

**Lab Sample ID: 500-204027-1**

Date Collected: 08/18/21 11:51

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

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

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

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

**Client Sample ID: MW-02**

**Lab Sample ID: 500-204027-2**

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

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

# Client Sample Results

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

Job ID: 500-204027-2

**Client Sample ID: MW-02**

**Lab Sample ID: 500-204027-2**

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

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

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

**Client Sample ID: MW-03**

**Lab Sample ID: 500-204027-3**

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

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

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

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

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

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

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

**Client Sample ID: MW-04**

**Lab Sample ID: 500-204027-4**

Date Collected: 08/18/21 14:50

Matrix: Water

Date Received: 08/19/21 09:25

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

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



# Client Sample Results

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

Job ID: 500-204027-2

## Client Sample ID: MW-04

Date Collected: 08/18/21 14:50

Date Received: 08/19/21 09:25

## Lab Sample ID: 500-204027-4

Matrix: Water

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

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

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

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

## Client Sample ID: MW-16

Date Collected: 08/18/21 16:19

Date Received: 08/19/21 09:25

## Lab Sample ID: 500-204027-5

Matrix: Water

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

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

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

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

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

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

# Client Sample Results

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

Job ID: 500-204027-2

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# Client Sample Results

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

Job ID: 500-204027-2

## Client Sample ID: MW-11

Date Collected: 08/19/21 11:34

Date Received: 08/20/21 09:30

## Lab Sample ID: 500-204027-7

Matrix: Water

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

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

## Client Sample ID: MW-14

Date Collected: 08/19/21 12:39

Date Received: 08/20/21 09:30

## Lab Sample ID: 500-204027-8

Matrix: Water

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

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

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

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

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

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

## Client Sample ID: MW-09

Date Collected: 08/19/21 13:46

Date Received: 08/20/21 09:30

## Lab Sample ID: 500-204027-9

Matrix: Water

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

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

# Client Sample Results

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

Job ID: 500-204027-2

**Client Sample ID: MW-09**

**Lab Sample ID: 500-204027-9**

**Date Collected: 08/19/21 13:46**

**Matrix: Water**

**Date Received: 08/20/21 09:30**

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

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

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

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



# Definitions/Glossary

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

Job ID: 500-204027-2

## Qualifiers

### Rad

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

## Glossary

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

# QC Association Summary

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

Job ID: 500-204027-2

## Rad

### Prep Batch: 524265

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

### Prep Batch: 524267

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

### Prep Batch: 524328

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

### Prep Batch: 524342

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

# QC Sample Results

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

Job ID: 500-204027-2

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

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

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

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

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

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

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	10.98		1.21	1.00	0.169	pCi/L	97	75 - 125
Carrier	LCS	LCS	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	94.1				08/27/21 10:49	09/21/21 15:26	1		

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

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

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

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

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

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.3	11.81		1.29	1.00	0.202	pCi/L	104	75 - 125
Carrier	LCS	LCS	Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	74.7				08/27/21 10:49	09/21/21 15:26	1		

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

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

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

Eurofins TestAmerica, Chicago

# QC Sample Results

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

Job ID: 500-204027-2

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

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

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

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	94.9		40 - 110

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

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

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

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

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

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

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

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

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

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

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

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

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

Eurofins TestAmerica, Chicago



# QC Sample Results

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

Job ID: 500-204027-2

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

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

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

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

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

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

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

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



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

Regulatory Program:  DW  NPDES  RCRA  Other:

TestAmerica Laboratories, Inc.

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





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

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

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



500-204027 Wayb

TO

TEST AMERICA  
2417 BOND ST

UNIVERSITY PARK IL 60484

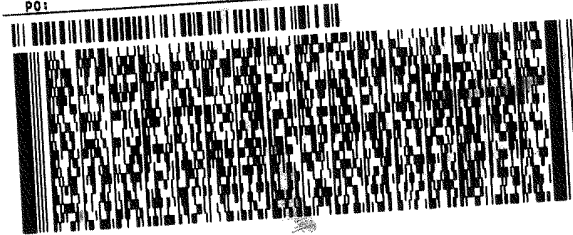
(708) 634-6200

REF:

DEPT:

INU:

PO:



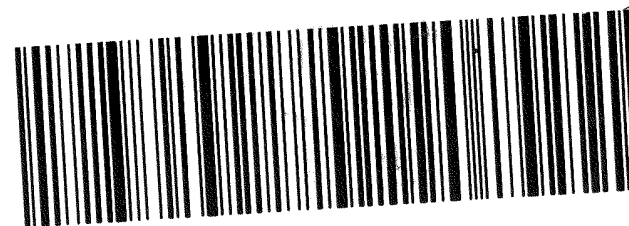
3 of 3  
MPS# 2827 6233 9413  
0263  
Metr# 2827 6233 9398

FRI - 20 AUG 4:30P  
STANDARD OVERNIGHT

0201

79 JOTA

60484  
IL-US ORD



**Chain of Custody Record**



Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):		COC No:	
Company: TestAmerica Laboratories, Inc.		Mockler, Diana J		500-151694.1		500-204027-2	
Address: 13715 Rider Trail North,		E-Mail: Diana.Mockler@Eurofins.com		State of Origin: Illinois		Page: Page 1 of 1	
City: Earth City		Accreditations Required (See note): NELAP - Illinois		Job #:		500-204027-2	
State, Zip: MO, 63045		Due Date Requested: 9/21/2021		Analysis Requested:		Preservation Codes:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):		903.0/PreSep_21 Standard Target List		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Email:		PO #:		904.0/PreSep_0 Standard Target List		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project Name: Waukegan CCR		WO #:		Perform MS/MSD (Yes or No)		Special Instructions/Note:	
Site: NRG Midwest Generation Waukegan		Project #: 50011597		Field Filtered Sample (Yes or No)		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;	
SSOW#:		Sample Date		Matrix (Water, Swold, Oil, etc)		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;	
Sample Identification - Client ID (Lab ID)		Sample Time		Preservation Code:		Batch QC must be performed (dup. spikes, etc) - no NCMs concerning limited volume;	
MW-01 (500-204027-1)	8/18/21	11:51	Central	Water	X	X	3
MW-02 (500-204027-2)	8/18/21	12:49	Central	Water	X	X	3
MW-03 (500-204027-3)	8/18/21	13:44	Central	Water	X	X	3
MW-04 (500-204027-4)	8/18/21	14:50	Central	Water	X	X	3
MW-16 (500-204027-5)	8/18/21	16:19	Central	Water	X	X	3
Duplicate (500-204027-6)	8/18/21		Central	Water	X	X	3
Total Number of Containers							

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

**Possible Hazard Identification**

Unconfirmed

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

Empty Kit Relinquished by: *[Signature]* Date: 8/19/21 Time: 1500

Relinquished by: *[Signature]* Date/Time: 8/19/21 1500

Relinquished by: *[Signature]* Date/Time: 8/20/21 0846

Custody Seals Intact:  Yes  No Custody Seal No.:

Company: *[Signature]* Company: FIA STC

Method of Shipment:  Return To Client  Disposal By Lab  Archive For Months

Special Instructions/QC Requirements:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

# Chain of Custody Record



Environment Testing  
America



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Mockler, Diana J	Carrier Tracking No(s): 500-151733.1																								
Client Contact: Shipping/Receiving		E-Mail: Diana.Mockler@Eurofins.com	State of Origin: Illinois																								
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Page: 1 of 1																								
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 9/23/2021	Job #: 500-204027-2																								
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - NCA W - pH 4-5 X - EDTA Y - other (specify)																								
Project Name: Waukegan CCR		PO #:	<table border="1"> <thead> <tr> <th>Analysis Requested</th> <th>903.0/PreSep_21 Standard Target List</th> <th>904.0/PreSep_0 Standard Target List</th> <th>Ra226Ra228_GFPc</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>MW-11 (500-204027-7)</td> <td>8/19/21 11:34 Central</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.</td> </tr> <tr> <td>MW-14 (500-204027-8)</td> <td>8/19/21 12:39 Central</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.</td> </tr> <tr> <td>MW-09 (500-204027-9)</td> <td>8/19/21 13:46 Central</td> <td>X</td> <td>X</td> <td>3</td> <td>Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.</td> </tr> </tbody> </table>	Analysis Requested	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:	MW-11 (500-204027-7)	8/19/21 11:34 Central	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	MW-14 (500-204027-8)	8/19/21 12:39 Central	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.	MW-09 (500-204027-9)	8/19/21 13:46 Central	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.
Analysis Requested	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List		Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:																					
MW-11 (500-204027-7)	8/19/21 11:34 Central	X		X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.																					
MW-14 (500-204027-8)	8/19/21 12:39 Central	X		X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.																					
MW-09 (500-204027-9)	8/19/21 13:46 Central	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.																						
Site: NRG Midwest Generation Waukegan		WO #:																									
Project #: 50011597		SSOW#:																									
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time																								
Sample Type (C=Comp, G=grab)		Matrix (Water, Sewage, Stormwater, Other)	Field Filtered Sample (Yes or No)																								
Sample Preservation Code:		Form MS/MSD (Yes or No)	Perform MS/MSD (Yes or No)																								

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

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_ Primary Deliverable Rank: 2  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: *Min Lamb* Date: 8/20/21 1500 Company: EPA-CA  
 Relinquished by: **FED EX** Date/Time: 9/21/21 Received by: *FEDEX*  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by: *John Mc*  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

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



# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-2

**Login Number: 204027**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Hernandez, Stephanie**

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



# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-2

**Login Number: 204027**

**List Number: 2**

**Creator: Mazariegos, Leonel A**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 08/20/21 06:09 PM**

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

# Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-204027-2

**Login Number: 204027**

**List Number: 3**

**Creator: Mazariegos, Leonel A**

**List Source: Eurofins TestAmerica, St. Louis**

**List Creation: 08/21/21 12:21 PM**

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

# Lab Chronicle

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

Job ID: 500-204027-2

## Client Sample ID: MW-01

Lab Sample ID: 500-204027-1

Date Collected: 08/18/21 11:51

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524265	08/26/21 15:39	MJ	TAL SL
Total/NA	Analysis	903.0		1	527841	09/21/21 11:49	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524267	08/26/21 16:14	MJ	TAL SL
Total/NA	Analysis	904.0		1	527565	09/17/21 13:23	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528684	09/23/21 16:13	SCB	TAL SL

## Client Sample ID: MW-02

Lab Sample ID: 500-204027-2

Date Collected: 08/18/21 12:49

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524265	08/26/21 15:39	MJ	TAL SL
Total/NA	Analysis	903.0		1	528286	09/21/21 11:30	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524267	08/26/21 16:14	MJ	TAL SL
Total/NA	Analysis	904.0		1	527565	09/17/21 13:23	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528684	09/23/21 16:13	SCB	TAL SL

## Client Sample ID: MW-03

Lab Sample ID: 500-204027-3

Date Collected: 08/18/21 13:44

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524265	08/26/21 15:39	MJ	TAL SL
Total/NA	Analysis	903.0		1	528286	09/21/21 11:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524267	08/26/21 16:14	MJ	TAL SL
Total/NA	Analysis	904.0		1	527619	09/17/21 13:27	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528684	09/23/21 16:13	SCB	TAL SL

## Client Sample ID: MW-04

Lab Sample ID: 500-204027-4

Date Collected: 08/18/21 14:50

Matrix: Water

Date Received: 08/19/21 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	528287	09/21/21 12:14	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:12	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

# Lab Chronicle

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

Job ID: 500-204027-2

## Client Sample ID: MW-16

Date Collected: 08/18/21 16:19

Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	528287	09/21/21 12:14	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:12	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

## Client Sample ID: Duplicate

Date Collected: 08/18/21 00:00

Date Received: 08/19/21 09:25

Lab Sample ID: 500-204027-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	528287	09/21/21 12:14	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

## Client Sample ID: MW-11

Date Collected: 08/19/21 11:34

Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	527825	09/21/21 13:34	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

## Client Sample ID: MW-14

Date Collected: 08/19/21 12:39

Date Received: 08/20/21 09:30

Lab Sample ID: 500-204027-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	527825	09/21/21 13:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

# Lab Chronicle

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

Job ID: 500-204027-2

**Client Sample ID: MW-09**

**Lab Sample ID: 500-204027-9**

**Date Collected: 08/19/21 13:46**

**Matrix: Water**

**Date Received: 08/20/21 09:30**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	PrecSep-21			524328	08/27/21 10:49	MJ	TAL SL
Total/NA	Analysis	903.0		1	527825	09/21/21 13:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			524342	08/27/21 12:08	MJ	TAL SL
Total/NA	Analysis	904.0		1	527396	09/16/21 12:13	ANW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	528683	09/23/21 16:12	SCB	TAL SL

**Laboratory References:**

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



# Accreditation/Certification Summary

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

Job ID: 500-204027-2

## Laboratory: Eurofins TestAmerica, St. Louis

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

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

# Tracer/Carrier Summary

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

Job ID: 500-204027-2

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

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	
500-204027-1	MW-01	83.4	
500-204027-2	MW-02	81.8	
500-204027-3	MW-03	95.7	
500-204027-4	MW-04	92.8	
500-204027-4 DU	MW-04	94.9	
500-204027-5	MW-16	98.0	
500-204027-6	Duplicate	107	
500-204027-7	MW-11	97.7	
500-204027-8	MW-14	69.8	
500-204027-9	MW-09	83.1	
LCS 160-524265/1-A	Lab Control Sample	94.1	
LCS 160-524328/1-A	Lab Control Sample	74.7	
MB 160-524265/23-A	Method Blank	87.7	
MB 160-524328/23-A	Method Blank	87.2	

**Tracer/Carrier Legend**  
Ba = Ba Carrier

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

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-204027-1	MW-01	83.4	89.7
500-204027-2	MW-02	81.8	88.6
500-204027-3	MW-03	95.7	87.5
500-204027-4	MW-04	92.8	81.1
500-204027-4 DU	MW-04	94.9	82.2
500-204027-5	MW-16	98.0	83.4
500-204027-6	Duplicate	107	73.6
500-204027-7	MW-11	97.7	81.9
500-204027-8	MW-14	69.8	81.9
500-204027-9	MW-09	83.1	82.2
LCS 160-524267/1-A	Lab Control Sample	94.1	81.1
LCS 160-524342/1-A	Lab Control Sample	74.7	79.3
MB 160-524267/23-A	Method Blank	87.7	87.5
MB 160-524342/23-A	Method Blank	87.2	85.2

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