

Appendix 19: 2021 Water Monitoring Stations Results

MEL-03-01	Sample date	Annual Average				7/19/2021	8/20/2021	9/18/2021	10/6/2021
Parameter	Unit	2018	2019	2020	2021	C1K6476	C1O4165	C1R4971	C1T6636
Field Measured									
Temperature	°C	-	10.74	12.80	8.47	10.69	10.04	7.94	5.21
pH	pH units	-	7.38	7.61	7.20	7.07	7.22	7.53	6.98
Conductivity	uS/cm	-	71.62	73.25	87.70	72.2	76.3	123.6	78.7
Dissolved oxygen	mg/L	-	10.08	10.73	11.85	11.55	11.43	12.56	NA
Dissolved oxygen	%	-	99.92	100.60	104.45	104	103.3	108.1	102.4
Turbidity	NTU	-	-	-	1.08	-	1.08	-	-
Conventional Parameters									
pH	pH units	7.48	7.55	7.31	7.43	7.33	7.40	7.60	7.39
Dissolved Oxygen	mg/L	10.40	10.32	10.02	9.78	11.4	7	10.6	10.1
Turbidity	NTU	0.20	0.10	0.20	0.14	< 0.1	0.1	0.1	0.3
Specific conductivity	umhos/cm	76.00	72.75	76.00	80.00	77	77	82	84
Hardness, as CaCO3 (T)	mg/L	21.40	21.13	22.17	22.40	21.0	22.1	23.4	23.1
Hardness, as CaCO3 (D)	mg/L	21.90	21.23	22.17	22.13	20.8	22.3	23.1	22.3
Total alkalinity, as CaCO3	mg/L	18.00	16.25	16.33	17.75	17	17	20	17
Carbonate, as CaCO3	mg/L	1.00	1.00	1.00	0.50	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3	mg/L	18.00	16.25	16.33	17.50	17	16	20	17
TDS	mg/L	25.00	50.00	38.33	32.50	30	35	45	20
TDS, calculated	mg/L	-	-	-	39.33	-	38	40	40
TSS	mg/L	1.00	1.25	1.00	0.63	< 1	1	< 1	< 1
Total organic carbon	mg/L	2.30	2.38	2.40	2.43	2.4	-	2.5	2.4
Dissolved organic carbon	mg/L	2.40	2.13	2.60	2.25	2.3	2.4	2.2	2.1
Major Ions									
Chloride	mg/L	8.40	8.50	8.80	9.85	8.9	10	9.5	11
Cyanide	mg/L	0.0050	0.0050	0.0050	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	mg/L	-	0.0016	0.0010	0.0028	0.0027	0.0047	0.0023	0.0016
Cyanide (WAD)	mg/L	0.0010	0.0010	0.0010	0.0007	< 0.0010	0.0013	< 0.0010	< 0.0010
Fluoride	mg/L	-	-	-	0.05	-	< 0.10	< 0.10	< 0.10
Silica	mg/L	0.23	0.18	0.23	0.38	0.17	0.13	1.0	0.22
Sulfate	mg/L	3.20	3.05	3.37	3.83	3.8	3.7	3.9	3.9
Nutrients and Chlorophyll a									
Ammonia Nitrogen	mg/L	0.05	0.07	0.08	0.05	< 0.050	0.062	< 0.050	0.078
Nitrate	mg/L	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.12	0.17	0.16	0.18	0.21	0.11	0.21	0.18
Total phosphorus (SM4500)	mg/L	-	-	-	0.01	-	< 0.0010	0.021	< 0.020
Total phosphorus (SW6020)	mg/L	0.02	0.02	0.01	0.01	0.0058	0.0031	0.0089	0.0047
Dissolved phosphorus (SW6020)	mg/L	-	-	0.01	0.00	0.0042	0.0027	0.0030	0.0023
Orthophosphate (P)	mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals									
Aluminum	mg/L	0.00700	0.00693	0.00276	0.00458	0.00667	0.00621	0.00310	0.00235
Antimony	mg/L	0.00050	0.00050	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Arsenic	mg/L	0.00020	0.00019	0.00025	0.00031	0.000346	0.000315	0.000294	0.000273
Barium	mg/L	0.00720	0.00755	0.00761	0.00799	0.00752	0.00817	0.00774	0.00852
Beryllium	mg/L	0.00010	0.00010	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Bismuth	mg/L	-	0.00100	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Boron	mg/L	0.05000	0.05000	0.01000	0.00500	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Calcium (total)	mg/L	6.79000	6.66000	6.98667	7.00250	6.65	6.94	7.19	7.23
Chromium	mg/L	0.00100	0.00100	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Cobalt	mg/L	-	0.00020	0.00001	0.00001	0.0000161	0.0000090	0.0000119	0.0000134
Copper	mg/L	0.00067	0.00066	0.00177	0.00065	0.000699	0.000598	0.000669	0.000623
Iron	mg/L	0.01400	0.01325	0.01197	0.01210	0.0206	0.0106	0.0095	0.0077
Lead	mg/L	0.00020	0.00020	0.00001	0.00001	0.0000247	0.0000121	< 0.0000050	< 0.0000050
Lithium	mg/L	0.00200	0.00200	0.00062	0.00074	0.00060	0.00067	0.00075	0.00092
Magnesium (total)	mg/L	1.08000	1.08250	1.15000	1.19000	1.08	1.15	1.31	1.22
Manganese	mg/L	0.00220	0.00243	0.00241	0.00208	0.00261	0.00218	0.00190	0.00164
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00100	0.00100	0.00012	0.00008	0.000085	0.000072	0.000081	0.000089
Nickel	mg/L	0.00100	0.00100	0.00038	0.00041	0.000406	0.000448	0.000380	0.000394
Potassium (total)	mg/L	0.88500	0.86150	0.91500	0.90500	0.831	0.894	0.999	0.896
Selenium	mg/L	0.00010	0.00010	0.00004	0.00003	< 0.000040	0.000043	< 0.000040	< 0.000040
Silicon	mg/L	-	0.10775	0.10567	0.09475	0.097	0.103	0.088	0.091
Silver	mg/L	0.00002	0.00002	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Sodium (total)	mg/L	4.25000	4.19500	4.47667	4.65250	4.32	4.62	4.89	4.78
Strontium	mg/L	0.03330	0.03123	0.03373	0.03600	0.0340	0.0357	0.0353	0.0390
Sulphur	mg/L	-	3.00000	3.00000	1.50000	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	0.00001	0.00001	0.00000	0.00000	0.0000020	0.0000028	< 0.0000020	0.0000026
Tin	mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	0.00500	0.00500	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	0.00010	0.00010	0.00002	0.00002	0.0000174	0.0000169	0.0000154	0.0000145
Vanadium	mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	0.00500	0.00500	0.00026	0.00114	0.00158	0.00169	0.00079	0.00049
Zirconium	mg/L	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals									
Aluminum	mg/L	0.00430	0.00325	0.00164	0.00372	0.00202	0.00415	0.00651	0.00218
Antimony	mg/L	0.00050	0.00050	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020

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Parameter	Unit	2018	2019	2020	2021	C1K6476	C1O4165	C1R4971	C1T6636
Arsenic	mg/L	0.00019	0.00020	0.00026	0.00031	0.000358	0.000288	0.000318	0.000290
Barium	mg/L	0.00720	0.00728	0.00768	0.00761	0.00724	0.00731	0.00757	0.00830
Beryllium	mg/L	0.00010	0.00010	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Bismuth	mg/L	-	0.00100	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Boron	mg/L	0.05000	0.05000	0.01000	0.00825	< 0.01	0.012	0.011	< 0.01
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Calcium (Dissolved)	mg/L	6.95	6.69	6.93	6.93	6.56	6.94	7.20	7.00
Chromium	mg/L	0.00100	0.00100	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Cobalt	mg/L	-	0.00020	0.00001	0.00001	0.0000059	0.0000075	0.0000128	0.0000073
Copper	mg/L	0.00060	0.00061	0.00173	0.00068	0.000657	0.000706	0.000716	0.000647
Iron	mg/L	0.00500	0.00523	0.00413	0.00588	0.0056	0.0042	0.0094	0.0043
Lead	mg/L	0.00020	0.00020	0.00001	0.00001	0.0000105	0.0000083	0.0000302	0.0000066
Lithium	mg/L	0.00200	0.00200	0.00068	0.00065	0.00066	0.00067	0.00057	0.00070
Magnesium (Dissolved)	mg/L	1.11	1.10	1.18	1.17	1.06	1.20	1.25	1.17
Manganese	mg/L	0.00100	0.00113	0.00045	0.00039	0.000628	0.000225	0.000497	0.000212
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00100	0.00100	0.00015	0.00009	0.000083	0.000108	0.000079	0.000073
Nickel	mg/L	0.00100	0.00100	0.00041	0.00039	0.000412	0.000398	0.000402	0.000363
Potassium (Dissolved)	mg/L	0.87	0.85	0.89	0.89	0.824	0.899	0.965	0.878
Selenium	mg/L	0.00010	0.00010	0.00004	0.00003	< 0.000040	0.000042	< 0.000040	< 0.000040
Silicon	mg/L	-	0.10075	0.10700	0.09200	0.091	0.106	0.089	0.082
Silver	mg/L	0.00002	0.00002	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Sodium (Dissolved)	mg/L	4.36	4.30	4.50	4.68	4.29	4.82	4.90	4.71
Strontium	mg/L	0.03350	0.03085	0.03437	0.03490	0.0335	0.0351	0.0341	0.0369
Sulphur	mg/L	-	3.00000	3.00000	1.50000	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	0.00001	0.00001	0.00000	0.00000	0.0000021	0.0000021	< 0.0000020	< 0.0000020
Tin	mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	0.00500	0.00500	0.00059	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	0.00010	0.00010	0.00002	0.00002	0.0000173	0.0000173	0.0000140	0.0000135
Vanadium	mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	0.00500	0.00500	0.00050	0.00122	0.00112	0.00094	0.00225	0.00056
Zirconium	mg/L	-	0.00010	-	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Radionuclides									
Radium-226	Bq/l	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Volatile Organics									
Benzene	mg/L	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	0.00020	0.00020	0.00024	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	0.00040	0.00040	0.00040	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	0.00040	0.00040	0.00040	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX	mg/L	0.02500	0.02500	0.02500	0.01250	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)	mg/L	0.02500	0.02500	0.02500	0.01250	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)	mg/L	0.10000	0.10000	0.10000	0.05000	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)	mg/L	0.20000	0.20000	0.20000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	0.20000	0.20000	0.20000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2

QAQC MEL-03-01 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.21	-	7.38	7.60	2.94	-
Dissolved Oxygen	mg/L		10.2	-	10.1	10.6	4.83	-
Turbidity	NTU	0.1	0.1	0.1	4.0	0.1	190.24	0.00
Specific conductivity	umhos/cm	1.0	1.9	1.0	78	82	5.00	62.07
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	23.0	23.4	1.72	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	22.4	23.1	3.08	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	17	20	16.22	0.00
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1	-	17	20	16.22	-
TDS	mg/L	10	10	10	45	45	0.00	0.00
TDS, calculated	mg/L	1.0	1	-	38	40	5.13	-
TSS	mg/L	1	1	1	1	1	0.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	2.5	2.5	0.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	2.2	2.2	0.00	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	10	9.5	5.13	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.001	0.001	0.001	0.0014	0.0023	48.65	0.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.15	1.0	147.83	0.00
Sulfate	mg/L	1.0	1	1.0	3.9	3.9	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.14	0.21	40.00	0.00
Total phosphorus	mg/L	0.020	0.020	0.020	0.027	0.021	25.00	0.00
Total phosphorus	mg/L	0.002	0.0042	0.002	0.0061	0.0089	37.33	70.97
Dissolved phosphorus	mg/L	0.002	0.002	0.002	0.0052	0.0030	53.66	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.00050	0.00074	0.00050	0.00311	0.00310	0.32	38.71
Antimony	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Arsenic	mg/L	0.000020	0.00002	0.000020	0.000294	0.000294	0.00	0.00
Barium	mg/L	0.000020	0.000713	0.000020	0.00796	0.00774	2.80	189.09
Beryllium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Bismuth	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Boron	mg/L	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Cadmium	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Calcium (total)	mg/L	0.010	0.063	-	7.17	7.19	0.28	-
Chromium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Cobalt	mg/L	0.0000050	0.000005	0.0000050	0.0000116	0.0000119	2.55	0.00
Copper	mg/L	0.000050	0.00005	0.000050	0.000646	0.000669	3.50	0.00
Iron	mg/L	0.0010	0.001	0.0010	0.0081	0.0095	15.91	0.00
Lead	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Lithium	mg/L	0.00050	0.0005	0.00050	0.00073	0.00075	2.70	0.00
Magnesium (total)	mg/L	0.010	0.05	-	1.23	1.31	6.30	-
Manganese	mg/L	0.000050	0.00005	0.000050	0.00174	0.00190	8.79	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.000050	0.00005	0.000050	0.000079	0.000081	2.50	0.00
Nickel	mg/L	0.000020	0.00002	0.000020	0.000349	0.000380	8.50	0.00
Potassium (total)	mg/L	0.010	0.05	-	0.929	0.999	7.26	-
Selenium	mg/L	0.000040	0.00004	0.000040	0.00004	0.00004	0.00	0.00
Silicon	mg/L	0.05	0.05	0.05	0.089	0.088	1.13	0.00
Silver	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Sodium (total)	mg/L	0.010	0.05	-	4.68	4.89	4.39	-
Strontium	mg/L	0.000050	0.00005	0.000050	0.0351	0.0353	0.57	0.00
Sulphur	mg/L	0.60	3	0.60	3	3	0.00	133.33
Thallium	mg/L	0.0000020	0.000002	0.0000020	0.000002	0.000002	0.00	0.00
Tin	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Titanium	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Uranium	mg/L	0.0000020	0.000002	0.0000020	0.0000144	0.0000154	6.71	0.00
Vanadium	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Zinc	mg/L	0.00010	0.00077	0.00010	0.00112	0.00079	34.55	154.02
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.00050	0.00096	0.00050	0.00744	0.00651	13.33	63.01
Antimony	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Arsenic	mg/L	0.000020	0.00002	0.000020	0.000301	0.000318	5.49	0.00
Barium	mg/L	0.000020	0.00002	0.000020	0.00734	0.00757	3.09	0.00
Beryllium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Bismuth	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Boron	mg/L	0.01	0.01	0.01	0.01	0.011	9.52	0.00
Cadmium	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Calcium (Dissolved)	mg/L	0.010	0.05	-	6.99	7.20	2.96	-
Chromium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Cobalt	mg/L	0.0000050	0.000005	0.0000050	0.0000104	0.0000128	20.69	0.00
Copper	mg/L	0.000050	0.00005	0.000050	0.000774	0.000716	7.79	0.00
Iron	mg/L	0.0010	0.0011	0.0010	0.0076	0.0094	21.18	9.52
Lead	mg/L	0.0000050	0.000005	0.0000050	0.0000187	0.0000302	47.03	0.00
Lithium	mg/L	0.00050	0.0005	0.00050	0.00063	0.00057	10.00	0.00
Magnesium (Dissolved)	mg/L	0.010	0.05	-	1.19	1.25	4.92	-

QAQC MEL-03-01 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Manganese	mg/L	0.000050	0.00005	0.000050	0.000424	0.000497	15.85	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.000050	0.00005	0.000050	0.000150	0.000079	62.01	0.00
Nickel	mg/L	0.000020	0.00002	0.000020	0.000429	0.000402	6.50	0.00
Potassium (Dissolved)	mg/L	0.010	0.05	-	0.914	0.965	5.43	-
Selenium	mg/L	0.000040	0.00004	0.000040	0.00004	0.00004	0.00	0.00
Silicon	mg/L	0.05	0.05	0.05	0.086	0.089	3.43	0.00
Silver	mg/L	0.0000050	0.000005	0.0000050	0.000005	0.000005	0.00	0.00
Sodium (Dissolved)	mg/L	0.010	0.05	-	4.70	4.90	4.17	-
Strontium	mg/L	0.000050	0.00005	0.000050	0.0336	0.0341	1.48	0.00
Sulphur	mg/L	0.60	3	0.60	3	3	0.00	133.33
Thallium	mg/L	0.0000020	0.000002	0.0000020	0.000002	0.000002	0.00	0.00
Tin	mg/L	0.00020	0.0002	0.00020	0.00032	0.0002	46.15	0.00
Titanium	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Uranium	mg/L	0.0000020	0.000002	0.0000020	0.0000136	0.0000140	2.90	0.00
Vanadium	mg/L	0.00020	0.0002	0.00020	0.00046	0.0002	78.79	0.00
Zinc	mg/L	0.00010	0.00010	0.00010	0.00227	0.00225	0.88	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Radionuclides								
Radium-226	Bq/l	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Volatile Organics								
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Toluene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.0004	0.00	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.0004	0.00	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.1	0.00	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-7		Sample date	Annual Average					1/4/2021	5/17/2021	5/24/2021	5/31/2021
Parameter	Unit	2016	2017	2018	2019	2020	2021	C104888	C1D6512	C1E2634	C1F0887
Conventional Parameters											
pH	pH units	7.09	7.23	7.39	7.03	7.03	6.70	6.99	7.22	7.59	7.47
Specific conductivity	umhos/cm	-	84.00	-	531.54	553.06	985.79	1200	500	860	600
Total alkalinity, as CaCO3	mg/L	-	85.29	101.71	69.89	51.72	43.72	58	94	190	84
TSS	mg/L	6.08	6.22	4.64	5.83	8.22	7.11	4	49	8	9
Volatile TSS	mg/L	-	-	-	5.51	7.59	6.26	4	45	6	7
Nutrients and Chlorophyll a											
Ammonia Nitrogen	mg/L	12.34	25.57	21.66	14.55	11.89	28.26	45	7.9	42	22
Nitrate	mg/L	19.67	22.10	23.22	15.49	18.76	45.82	56.6	< 0.10	8.43	8.61
Nitrite	mg/L	1.59	2.37	0.48	0.21	0.23	0.79	0.870	0.038	0.055	7.72
Nitrate + nitrite	mg/L	21.77	24.44	23.71	15.70	19.00	46.61	57.5	< 0.10	8.49	16.3
Total Kjeldahl nitrogen	mg/L	24.98	27.69	22.57	16.18	15.12	31.77	73	16	48	24
Biochemical Oxygen Demand, 5 Day	mg/L	15.85	24.72	6.93	7.26	8.96	13.95	12	97	20	17
Chemical oxygen demand	mg/L	-	63.38	67.91	63.32	77.35	107.84	120	290	150	86
Total phosphorus	mg/L	12.38	12.15	9.64	7.43	7.83	17.23	16	12	18	7.0
General Organics											
Total oil and grease	mg/L	16.66	1.05	1.07	1.05	0.89	1.26	< 0.50	14	1.4	< 0.50
Coliforms											
Total Coliform	CFU/100mL	100173.08	19474.81	5535.90	93423.47	1399.92	219318.67	< 100	ND	3700000	60000
Fecal Coliform	CFU/100mL	-	-	2450.67	3346.52	83.88	6372.16	64	>60000	54000	900
Atypical colonies	CFU/100mL	-	-	27252.50	1437.18	2778.45	295498.42	8900	>2000000	2900000	220000
Aerobic heterotrophic bacteria	CFU/mL	4.74	243.52	424.17	5426.13	13486.00	275167.21	>30000	>300000	>3000000	320000
Escherichia coli	CFU/100mL	19389.25	10142.97	6505.43	3761.81	59.92	6472.05	54	>60000	54000	900

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

MEL-7	Sample date	6/7/2021	6/14/2021	6/21/2021	6/28/2021	7/5/2021	7/12/2021	7/26/2021	8/9/2021	8/30/2021
Parameter	Unit	C1F8945	C1G6630	C1H4654	C1I2510	C1I8674	C1J8233	C1L4566	C1M8199	C1P1697
Conventional Parameters										
pH	pH units	7.01	6.73	7.05	6.78	6.74	6.78	6.40	6.28	6.61
Specific conductivity	umhos/cm	790	910	970	1300	1300	1100	1100	1500	970
Total alkalinity, as CaCO3	mg/L	26	22	36	35	28	36	14	15	23
TSS	mg/L	3	4	3	4	3	7	3	2	3
Volatile TSS	mg/L	2	3	3	4	3	5	3	2	3
Nutrients and Chlorophyll a										
Ammonia Nitrogen	mg/L	15	15	23	47	49	33	22	59	17
Nitrate	mg/L	30.6	46.5	41.5	66.0	74.2	52.4	51.9	91.0	50.5
Nitrite	mg/L	0.477	0.372	0.619	0.877	0.353	0.607	0.273	0.281	0.253
Nitrate + nitrite	mg/L	31.1	46.9	42.2	66.8	74.5	53.0	52.2	91.3	50.8
Total Kjeldahl nitrogen	mg/L	16	17	24	52	50	34	26	69	19
Biochemical Oxygen Demand, 5 Day	mg/L	5	8	6	9	10	13	10	13	4
Chemical oxygen demand	mg/L	75	71	80	120	110	110	91	140	75
Total phosphorus	mg/L	9.4	12	14	19	21	21	23	28	19
General Organics										
Total oil and grease	mg/L	< 0.50	< 0.50	< 0.50	1.6	0.50	< 0.50	< 0.50	1.8	< 0.50
Coliforms										
Total Coliform	CFU/100mL	8000	10	290	10	9600	100000	3400	1000	126
Fecal Coliform	CFU/100mL	40	< 10	2	< 2	8	200	< 2	2	< 2
Atypical colonies	CFU/100mL	3000	310	590	1660	4600	90000	5200	63000	< 10
Aerobic heterotrophic bacteria	CFU/mL	380000	909	2182	31000	72000	>300000	10400	174000	455
Escherichia coli	CFU/100mL	40	< 10	< 2	< 2	16	200	< 2	2	< 2

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when

MEL-7	Sample date	9/6/2021	9/13/2021	9/20/2021	10/4/2021	11/1/2021	11/8/2021
Parameter	Unit	C1Q0090	C1Q8561	C1R5297	C1T1466	C1W4062	C1X2180
Conventional Parameters							
pH	pH units	6.15	5.64	7.27	6.34	5.09	7.09
Specific conductivity	umhos/cm	940	710	850	730	1300	1100
Total alkalinity, as CaCO3	mg/L	7.5	2.7	87	11	< 1.0	61
TSS	mg/L	2	5	16	2	4	4
Volatile TSS	mg/L	2	5	14	1	4	3
Nutrients and Chlorophyll a							
Ammonia Nitrogen	mg/L	12	15	33	8.0	34	38
Nitrate	mg/L	54.4	38.2	35.5	38.2	77.9	48.1
Nitrite	mg/L	0.222	0.324	0.610	0.250	0.097	0.732
Nitrate + nitrite	mg/L	54.6	38.5	36.1	38.4	78.0	48.8
Total Kjeldahl nitrogen	mg/L	11	15	35	9.7	30	35
Biochemical Oxygen Demand, 5 Day	mg/L	< 2	5	28	2	2	3
Chemical oxygen demand	mg/L	67	75	170	63	72	84
Total phosphorus	mg/L	20	13	16	16	23	20
General Organics							
Total oil and grease	mg/L	< 0.50	< 0.50	< 0.50	< 0.50	0.50	1.1
Coliforms							
Total Coliform	CFU/100mL	3000	< 1000	40000	1900	7000	12300
Fecal Coliform	CFU/100mL	26	5	5800	< 2	4	< 2
Atypical colonies	CFU/100mL	2700	66000	240000	1000	2500	5000
Aerobic heterotrophic bacteria	CFU/mL	4600	91	>300000	900	1640	>300000
Escherichia coli	CFU/100mL	26	5	7700	< 2	4	< 2

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when

QAQC MEL-7 Parameter	Sample date		8/9/2021						
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank
Conventional Parameters									
pH	pH units		6.48	-	6.28	6.28	0.00	-	6.46
Specific conductivity	umhos/cm	1.0	1.2	1.0	1500	1500	0.00	18.18	1.6
Total alkalinity, as CaCO3	mg/L	1.0	1.1	1.0	16	15	6.45	9.52	1.5
TSS	mg/L	1	1	1	3	2	40.00	0.00	1
Volatile TSS	mg/L	1	1	1	2	2	0.00	0.00	1
Nutrients and Chlorophyll a									
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	60	59	1.68	0.00	0.05
Nitrate	mg/L	0.10	0.1	0.10	89.9	91.0	1.22	0.00	0.1
Nitrite	mg/L	0.010	0.01	0.010	0.352	0.281	22.43	0.00	0.01
Nitrate + nitrite	mg/L	0.10	0.1	-	90.2	91.3	1.21	-	0.1
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	65	69	5.97	0.00	0.1
Biochemical Oxygen Demand, 5 Day	mg/L	2	2	2	11	13	16.67	0.00	2
Chemical oxygen demand	mg/L	4.0	4	4.0	150	140	6.90	0.00	4
Total phosphorus	mg/L	0.020	0.02	0.020	28	28	0.00	0.00	0.02
General Organics									
Total oil and grease	mg/L	0.50	0.5	0.50	1.7	1.8	5.71	0.00	0.5
% Exceedance*							7%	0%	

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

QAQC MEL-7 Parameter	Sample date		9/6/2021						
	Unit	MDL	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank	Lab Blank
Conventional Parameters									
pH	pH units		-	6.24	6.15	1.45	-	5.90	-
Specific conductivity	umhos/cm	1.0	1.0	940	940	0.00	46.15	1.6	1.0
Total alkalinity, as CaCO3	mg/L	1.0	1.0	9.4	7.5	22.49	40.00	1	1.0
TSS	mg/L	1	1	2	2	0.00	0.00	1	1
Volatile TSS	mg/L	1	1	2	2	0.00	0.00	1	1
Nutrients and Chlorophyll a									
Ammonia Nitrogen	mg/L	0.050	0.050	12	12	0.00	0.00	0.05	0.050
Nitrate	mg/L	0.10	0.10	53.8	54.4	1.11	0.00	0.1	0.10
Nitrite	mg/L	0.010	0.010	0.160	0.222	32.46	0.00	0.01	0.010
Nitrate + nitrite	mg/L	0.10	-	53.9	54.6	1.29	-	0.1	-
Total Kjeldahl nitrogen	mg/L	0.10	0.10	12	11	8.70	0.00	0.1	0.10
Biochemical Oxygen Demand, 5 Day	mg/L	2	2	2	2	0.00	0.00	2	2
Chemical oxygen demand	mg/L	4.0	4.0	70	67	4.38	0.00	4.3	4.0
Total phosphorus	mg/L	0.020	0.020	21	20	4.88	0.00	0.053	0.020
General Organics									
Total oil and grease	mg/L	0.50	0.50	0.5	0.5	0.00	0.00	0.5	0.50
% Exceedance*						7%	0%		

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampli

Bold values correspond to a RPD higher than 20% and for which concentra

Grey shaded cells correspond to a RPD higher than 20% and for which conc

Italic values correspond to a RPD higher than 20% and for which one of the

QAQC MEL-7 Parameter	Sample date		9/20/2021			
	Unit	MDL	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters						
pH	pH units		7.25	7.27	0.28	-
Specific conductivity	umhos/cm	1.0	860	850	1.17	46.15
Total alkalinity, as CaCO3	mg/L	1.0	88	87	1.14	0.00
TSS	mg/L	1	17	16	6.06	0.00
Volatile TSS	mg/L	1	16	14	13.33	0.00
Nutrients and Chlorophyll a						
Ammonia Nitrogen	mg/L	0.050	29	33	12.90	0.00
Nitrate	mg/L	0.10	35.0	35.5	1.42	0.00
Nitrite	mg/L	0.010	0.613	0.610	0.49	0.00
Nitrate + nitrite	mg/L	0.10	35.6	36.1	1.39	-
Total Kjeldahl nitrogen	mg/L	0.10	34	35	2.90	0.00
Biochemical Oxygen Demand, 5 Day	mg/L	2	26	28	7.41	0.00
Chemical oxygen demand	mg/L	4.0	170	170	0.00	7.23
Total phosphorus	mg/L	0.020	16	16	0.00	90.41
General Organics						
Total oil and grease	mg/L	0.50	0.5	0.5	0.00	0.00
% Exceedance*					0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampli

Bold values correspond to a RPD higher than 20% and for which concentra

Grey shaded cells correspond to a RPD higher than 20% and for which conc

Italic values correspond to a RPD higher than 20% and for which one of th

MEL-11 Parameter	CCME Guideline	Canada Drinking	Sample date Unit	Annual Average					1/10/2021 C111430	2/8/2021 C139208	3/8/2021 C164685	4/18/2021 C1A6499	5/16/2021 C1D6494	6/20/2021 C1H4412	7/19/2021 C1K5081	8/16/2021 C1N7457	9/13/2021 C1Q8705	10/10/2021 C1T8369	11/9/2021 C1X3354	12/14/2021 C1A674
Field Measured			2017	2018	2019	2020	2021													
Temperature			°C	-	5.50	6.61	6.84	7.60	4	6.4	5	9	-	6.36	13.4	10.6	11.9	5.8	-	3.5
pH			pH units	-	7.41	7.25	68.94	7.20	6.8	6.46	6.69	7.41	-	7.96	6.85	7.96	6.48	-	-	8.06
Conductivity			µS/cm	-	75.57	97.85	118.31	122.53	125.3	223.9	141.8	149	-	101.1	96.4	89.8	101.1	76.7	-	120.2
Dissolved oxygen			mg/L	-	107.60	7.54	19.72	12.18	-	16.64	11.66	11.28	-	11.99	9.84	10.42	8.33	13.7	-	15.74
Dissolved oxygen			%	-	-	84.99	95.41	98.96	99.8	97.8	93.3	102	-	97.3	96.4	94.7	77.1	112.8	-	118.4
Turbidity			NTU	-	-	-	-	2.71	-	-	-	-	-	-	-	-	-	-	-	-
Conventional Parameters																				
pH	6-9.5	6-9.5	pH units	-	7.27	7.30	7.22	7.43	7.33	7.31	7.40	7.42	7.73	7.26	7.42	7.60	7.49	7.39	7.43	7.39
Turbidity		0.1	NTU	0.30	0.33	0.21	0.24	0.23	0.2	0.1	0.2	0.2	<0.1	0.3	0.2	0.3	<0.1	0.4	0.3	0.4
Specific conductivity			µmhos/cm	-	88.71	96.50	110.33	120.58	130	130	140	150	160	100	97	100	110	110	110	120
Hardness, as CaCO3 (T)			mg/L	23.43	25.92	27.40	30.96	32.22	33.5	35.4	36.8	40.4	41.7	26.2	25.4	27.4	27.0	29.7	30.4	32.7
Hardness, as CaCO3 (D)			mg/L	22.60	22.03	27.23	30.33	31.89	34.3	34.5	36.8	40.3	40.4	25.9	26.1	27.2	25.8	28.8	29.9	32.7
Total alkalinity, as CaCO3			mg/L	18.67	18.67	20.67	22.42	22.08	25	25	26	25	34	17	17	17	18	20	20	21
Carbonate, as CaCO3			mg/L	1.00	1.00	1.00	1.00	0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bicarbonate, as CaCO3			mg/L	18.33	19.00	20.50	22.33	21.92	24	25	26	25	34	17	17	17	20	20	20	21
TDS		500	mg/L	52.67	79.29	65.83	63.33	55.83	30	105	50	70	75	70	55	50	45	20	55	45
TDS, calculated			mg/L	-	-	-	-	55.00	-	-	-	-	-	-	-	-	-	54	54	57
TSS			mg/L	4.00	1.43	1.83	1.08	0.63	<1	<1	<1	<1	<1	<1	<1	1	1	1	<1	<1
Total organic carbon			mg/L	2.83	3.11	3.53	3.59	3.7	3.7	3.9	4.1	3.8	3.7	3.2	3.2	3.1	3.3	3.7	3.7	
Dissolved organic carbon			mg/L	2.70	3.09	2.97	3.53	3.55	4.2	3.6	3.8	4.2	3.7	3.7	3.0	3.2	3.1	3.2	3.3	
Major Ions																				
Chloride	120		mg/L	9.65	11.37	12.48	15.75	17.92	19	21	21	24	23	14	13	15	15	16	16	18
Cyanide		0.2	mg/L	0.01	0.01	0.01	0.01	0.002	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (free)	0.005		mg/L	-	0.003	0.001	0.002	0.0086	0.07	0.0028	<0.0010	0.0029	<0.0010	0.0018	<0.0010	0.0034	0.0021	0.014	0.0027	0.0024
Cyanide (WAD)			mg/L	0.001	0.001	0.001	0.001	0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050
Fluoride	0.12	1.5	mg/L	-	-	-	-	0.05	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	
Silica			mg/L	0.35	0.40	0.53	1.66	0.33	0.37	0.44	0.43	0.35	0.48	0.47	0.27	0.23	0.21	0.26	0.24	0.16
Sulfate	128	500	mg/L	4.00	4.36	4.47	5.73	6.73	7.0	7.5	7.7	8.1	8.4	5.9	5.6	5.3	5.5	6.3	7.1	6.4
Nutrients and Chlorophyll a																				
Ammonia Nitrogen			mg/L	0.01	0.05	0.08	0.12	0.05	0.14	<0.050	0.066	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.11
Nitrate	13	10	mg/L	0.10	0.10	0.10	0.10	0.07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrite	0.06	1	mg/L	0.01	0.01	0.01	0.01	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate + nitrite			mg/L	0.10	0.10	0.10	0.10	0.07	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	<0.10
Total Kjeldahl nitrogen			mg/L	0.14	0.16	0.20	0.22	0.21	0.20	0.23	0.21	0.31	0.24	0.25	<0.10	0.15	0.22	0.22	0.21	0.20
Total phosphorus			mg/L	0.01	0.02	0.02	0.02	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	0.039	<0.020	<0.020	0.048	0.073	<0.020	0.023
Orthophosphate (P)			mg/L	0.01	0.01	0.01	0.01	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Metals																				
Aluminum			mg/L	0.00517	0.15395	0.00618	0.00496	0.00539	0.0041	0.0047	<0.0030	0.0042	0.0037	0.0133	0.0056	0.0054	0.0061	0.0068	0.0060	0.0033
Antimony			mg/L	0.00050	0.00050	0.00050	0.00050	0.00025	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Arsenic	0.005	0.01	mg/L	0.00027	0.00102	0.00032	0.00044	0.00052	0.00051	0.00047	0.00046	0.00056	0.00054	0.00072	0.00056	0.00052	0.00049	0.00050	0.00047	0.00048
Barium		2	mg/L	0.00730	0.01125	0.00988	0.01048	0.01047	0.0108	0.0116	0.0124	0.0143	0.0141	0.0094	0.0081	0.0082	0.0081	0.0084	0.0095	0.0107
Beryllium			mg/L	0.00010	0.00010	0.00010	0.00010	0.00005	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth			mg/L	0.00100	0.00100	0.00100	0.00100	0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron		5	mg/L	0.05000	0.05000	0.05000	0.05000	0.02500	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Cadmium	0.00006	0.007	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Calcium (total)			mg/L	7.34333	8.12833	8.55833	9.56750	9.86000	10.2	10.7	11.3	12.4	12.8	7.89	7.81	8.45	8.21	9.10	9.36	10.1
Chromium		0.05	mg/L	0.00100	0.00208	0.00100	0.00100	0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt			mg/L	-	0.00020	0.00020	0.00020	0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Copper	0.002	1	mg/L	0.00080	0.00162	0.00146	0.00102	0.00097	0.00088	0.00097	0.00106	0.00110	0.00113	0.00104	0.00085	0.00079	0.00087	0.00095	0.00105	0.00098
Iron	0.3	0.3	mg/L	0.01633	0.43183	0.03467	0.02742	0.02608	0.014	0.018	0.015	0.024	0.015	0.065	0.029	0.019	0.024	0.039	0.026	0.025
Lead	0.001	0.005	mg/L	0.00039	0.00029	0.00020	0.00020	0.00010	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Lithium			mg/L	0.00200	0.00202	0.00200	0.00200	0.00100	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Magnesium (total)			mg/L	1.23333	1.38333	1.46083	1.71500	1.84417	1.96	2.11	2.11	2.29	2.35	1.58	1.44	1.53	1.57	1.70	1.69	1.80
Manganese		0.02	mg/L	0.00293	0.04322	0.00486	0.00525	0.00565	0.0047	0.0044	0.0043	0.0063	0.0033	0.0097	0.0072	0.0056	0.0059	0.0096	0.0031	0.0037
Mercury	0.000026	0.001	mg/L	0.00001	0.00002	0.00001	0.00001	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Molybdenum	0.073		mg/L	0.00100	0.00102	0.00100	0.00100	0.00050	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	0.025		mg/L																	

MEL-11 Parameter	CCME Guideline	Canada Drinking	Sample date Unit	Annual Average					1/10/2021	2/8/2021	3/8/2021	4/18/2021	5/16/2021	6/20/2021	7/19/2021	8/16/2021	9/13/2021	10/10/2021	11/9/2021	12/14/2021
				2017	2018	2019	2020	2021	C111430	C139208	C164685	C1A6499	C1D6494	C1H4412	C1K5081	C1N7457	C1Q8705	C1T8369	C1X3354	C1A8674
Iron	0.3	0.3	mg/L	0.00773	0.02153	0.01381	0.01113	0.00913	< 0.0050	0.0053	0.0068	0.0094	0.0058	0.0285	0.0061	0.0112	0.0076	0.0078	0.0100	
Lead	0.001	0.005	mg/L	0.00020	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	
Lithium			mg/L	0.00200	0.00200	0.00200	0.00200	0.00100	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	
Magnesium (Dissolved)			mg/L	1.20000	1.32333	1.41500	1.68917	1.83917	1.99	1.95	2.13	2.27	2.33	1.55	1.50	1.54	1.55	1.72	1.74	1.80
Manganese		0.02	mg/L	0.00100	0.00497	0.00179	0.00118	0.00103	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0068	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Mercury	0.000026	0.001	mg/L	0.00001	0.00003	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073		mg/L	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025		mg/L	0.00113	0.00100	0.00100	0.00100	0.00063	< 0.0010	< 0.0010	< 0.0010	0.0010	0.0010	0.0011	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium (Dissolved)			mg/L	0.88433	1.02367	1.06242	1.17408	1.20000	1.24	1.28	1.42	1.47	1.51	1.06	1.05	1.05	1.03	1.05	1.06	1.18
Selenium	0.001	0.05	mg/L	0.00010	0.00009	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L	-	0.14100	0.18927	0.20550	0.17175	0.161	0.17	0.20	0.22	0.27	0.22	0.14	0.14	0.12	0.13	0.13	0.16
Silver	0.0025		mg/L	0.00002	0.00002	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)		200	mg/L	4.71333	5.29500	5.69333	6.83333	7.88417	8.47	8.85	9.11	9.67	10.2	6.56	6.43	6.52	7.36	7.24	7.65	
Strontium		7	mg/L	0.03393	0.04430	0.04529	0.05514	0.06104	0.0666	0.0686	0.0778	0.0814	0.0771	0.0461	0.0481	0.0519	0.0468	0.0557	0.0536	0.0588
Sulphur			mg/L	-	3.00000	3.00000	3.00000	1.50000	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	0.0008		mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin			mg/L	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	0.02	mg/L	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium			mg/L	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	5	mg/L	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium			mg/L	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Volatile Organics																				
Benzene	0.37	0.005	mg/L	0.00020	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	0.09	0.14	mg/L	0.00020	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	0.002	0.06	mg/L	0.00020	0.00034	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes		0.09	mg/L	0.00040	0.00040	0.00040	0.00040	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes			mg/L	0.00040	0.00040	0.00040	0.00040	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene			mg/L	0.00020	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX			mg/L	0.02500	0.02500	0.02500	0.02500	0.01250	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)			mg/L	0.02500	0.02500	0.02500	0.02500	0.01250	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)			mg/L	0.10000	0.10000	0.10000	0.10000	0.05000	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)			mg/L	0.20000	0.20000	0.20000	0.20000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)			mg/L	0.20000	0.20000	0.20000	0.20000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Footnotes:
All 2021 samples have been included in the Annual average.
The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-11 Parameter	Sample date		8/16/2021						12/14/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters														
pH	pH units		6.29	-	7.44	7.60	2.13	-	5.89	-	7.38	7.39	0.14	-
Turbidity	NTU	0.1	0.1	-	0.3	0.3	0.00	-	0.1	-	0.3	0.4	28.57	-
Specific conductivity	umhos/cm	1.0	1.2	1.2	100	97	3.05	0.00	1.3	1.2	120	120	0.00	8.00
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	26.9	27.4	1.84	-	0.5	-	33.0	32.7	0.91	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	27.1	27.2	0.37	-	0.5	-	32.8	32.7	0.31	-
QAQC	mg/L	1.0	1	1	17	17	0.00	0.00	1	1	22	21	4.65	0.00
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1	-	17	17	0.00	-	1	-	22	21	4.65	-
TDS	mg/L	10	10	10	55	50	9.52	0.00	10	10	35	45	25.00	0.00
TDS, calculated	mg/L	1.0	-	-	-	-	-	-	1	-	58	57	1.74	-
TSS	mg/L	1	1	1	2	1	66.67	0.00	1	1	1	1	0.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.4	3.2	3.2	0.00	0.00	0.4	0.4	3.5	3.7	5.56	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.4	3.0	3.2	6.45	0.00	0.4	0.4	3.6	3.6	0.00	0.00
Major Ions														
Chloride	mg/L	1.0	1	1	15	15	0.00	0.00	1	1	18	18	0.00	0.00
Cyanide	mg/L	0.005/0.0005*	0.005	0.005	0.005	0.005	0.00	0.00	0.00116*	0.0005*	0.00059*	0.0005*	16.51*	79.52*
Cyanide (free)	mg/L	0.0010	0.0067	0.0067	0.0031	0.0034	9.23	0.00	0.0022	0.0067	0.0017	0.0024	34.15	101.12
Cyanide (WAD)	mg/L	0.001/0.0005*	0.001	0.001	0.001	0.001	0.00	0.00	0.0005*	0.0005*	0.00060*	0.0005*	18.18*	0.00*
Fluoride	mg/L	0.10	-	-	-	-	-	-	0.1	-	0.1	0.1	0.00	-
Silica	mg/L	0.050	0.05	0.05	0.21	0.23	9.09	0.00	0.1	0.05	0.17	0.16	6.06	66.67
Sulfate	mg/L	1.0	1	1	5.2	5.3	1.90	0.00	1	1	6.4	6.4	0.00	0.00
Nutrients and Chlorophyll a														
Ammonia Nitrogen	mg/L	0.050	0.05	0.05	0.05	0.05	0.00	0.00	0.05	0.05	0.053	0.11	69.94	0.00
Nitrate	mg/L	0.10	0.1	0.1	0.1	0.1	0.00	0.00	0.1	0.1	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.1	0.16	0.15	6.45	0.00	0.1	0.1	0.16	0.20	22.22	0.00
Total phosphorus	mg/L	0.020	0.02	0.02	0.02	0.02	0.00	0.00	0.02	0.02	0.02	0.023	13.95	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Total Metals														
Aluminum	mg/L	0.0030	0.003	0.003	0.0048	0.0054	11.76	0.00	0.003	0.003	0.0043	0.0033	26.32	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.0005	0.0005	0.00	0.00	0.0005	0.0005	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.0001	0.00052	0.00052	0.00	0.00	0.0001	0.0001	0.00048	0.00048	0.00	0.00
Barium	mg/L	0.0010	0.001	0.001	0.0081	0.0082	1.23	0.00	0.0013	0.001	0.0099	0.0107	7.77	26.09
Beryllium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.05	0.05	0.05	0.00	0.00	0.05	0.05	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Calcium (total)	mg/L	0.050	0.05	-	8.31	8.45	1.67	-	0.194	-	10.1	10.1	0.00	-
Chromium	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.0005	0.00087	0.00079	9.64	0.00	0.0005	0.0005	0.00107	0.00098	8.78	0.00
Iron	mg/L	0.010	0.01	0.01	0.019	0.019	0.00	0.00	0.01	0.01	0.015	0.025	50.00	0.00
Lead	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.002	0.002	0.002	0.00	0.00	0.002	0.002	0.002	0.002	0.00	0.00
Magnesium (total)	mg/L	0.050	0.05	-	1.48	1.53	3.32	-	0.05	-	1.86	1.80	3.28	-
Manganese	mg/L	0.0010	0.001	0.001	0.0054	0.0056	3.64	0.00	0.001	0.001	0.0038	0.0037	2.67	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	1.05	1.07	1.89	-	0.05	-	1.20	1.18	1.68	-
Selenium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.1	0.16	0.16	0.00	0.00	0.1	0.1	0.18	0.17	5.71	0.00
Silver	mg/L	0.000020	0.00002	0.00002	0.00002	0.00002	0.00	0.00	0.00002	0.00002	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	6.41	6.47	0.93	-	0.05	-	7.86	7.59	3.50	-
Strontium	mg/L	0.0010	0.001	0.001	0.0504	0.0509	0.99	0.00	0.001	0.001	0.0603	0.0592	1.84	0.00
Sulphur	mg/L	3.0	3	3	3	3	0.00	0.00	3	3	3	3	0.00	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00

QAQC MEL-11 Parameter	Sample date		8/16/2021						12/14/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Zinc	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Dissolved Metals														
Aluminum	mg/L	0.0030	0.003	0.003	0.0058	0.0037	44.21	0.00	0.003	0.003	0.003	0.003	0.00	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.0005	0.0005	0.00	0.00	0.0005	0.0005	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.0001	0.00048	0.00048	0.00	0.00	0.0001	0.0001	0.00048	0.00047	2.11	0.00
Barium	mg/L	0.0010	0.001	0.001	0.0080	0.0081	1.24	0.00	0.0010	0.001	0.0100	0.0107	6.76	0.00
Beryllium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.05	0.05	0.05	0.00	0.00	0.05	0.05	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	0.05	-	8.35	8.35	0.00	-	0.165	-	10.0	10.1	1.00	-
Chromium	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00020	0.0002	0.0002	0.00082	0.00083	1.21	0.00	0.0002	0.0002	0.00096	0.00094	2.11	0.00
Iron	mg/L	0.0050	0.005	0.005	0.0074	0.0061	19.26	0.00	0.005	0.005	0.0063	0.0100	45.40	0.00
Lead	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.002	0.002	0.002	0.00	0.00	0.002	0.002	0.002	0.002	0.00	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	1.51	1.54	1.97	-	0.05	-	1.87	1.80	3.81	-
Manganese	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.001	0.001	0.001	0.00	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	1.04	1.05	0.96	-	0.05	-	1.21	1.18	2.51	-
Selenium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.1	0.14	0.14	0.00	0.00	0.1	0.1	0.16	0.16	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.00002	0.00002	0.00002	0.00	0.00	0.00002	0.00002	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	6.50	6.55	0.77	-	0.05	-	7.78	7.65	1.69	-
Strontium	mg/L	0.0010	0.001	0.001	0.0527	0.0519	1.53	0.00	0.001	0.001	0.0602	0.0588	2.35	0.00
Sulphur	mg/L	3.0	3	3	3	3	0.00	0.00	3	3	3	3	0.00	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.0001	0.0001	0.00	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Volatile Organics														
Benzene	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Ethylbenzene	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Toluene	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Xylenes	mg/L	0.00040	0.0004	0.0004	0.0004	0.0004	0.00	0.00	0.0004	0.0004	0.0004	0.0004	0.00	0.00
m,p-Xylenes	mg/L	0.00040	0.0004	0.0004	0.0004	0.0004	0.00	0.00	0.0004	0.0004	0.0004	0.0004	0.00	0.00
o-Xylene	mg/L	0.00020	0.0002	0.0002	0.0002	0.0002	0.00	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00	0.025	0.025	0.025	0.025	0.00	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00	0.025	0.025	0.025	0.025	0.00	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.1	0.00	0.00	0.1	0.1	0.1	0.1	0.00	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00	0.2	0.2	0.2	0.2	0.00	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00	0.2	0.2	0.2	0.2	0.00	0.00
% Exceedance**							0%	0%					0%	0%

Footnotes:

*Different MDL.

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

** Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-12	Sample date	Annual Average				6/30/2021	7/5/2021	7/18/2021	8/16/2021	9/19/2021	10/7/2021	10/11/2021
Parameter	Units	2018	2019	2020	2021	C1I6799	C1I8282	C1K4976	C1N5757	C1R5013	C1T6627	C1T8605
Field Measured												
Temperature	°C	-	10.85	7.59	7.79	11.4	11.4	11.9	9.8	5.5	2.75	5.4
pH	pH units	-	7.95	7.27	7.68	9	7.2	8.66	7.68	8.17	7.05	7.34
Conductivity	uS/cm	-	3256.86	4507.29	2612.00	1701	1535	1889	1479	3366	3762	3641
Dissolved oxygen	mg/L	-	9.05	11.23	10.72	12.38	9.01	10.77	10.88	10.82	12.14	10.68
Dissolved oxygen	%	-	84.41	87.30	91.80	120.5	82.4	99.5	97.2	86.8	92.5	92.4
Turbidity	NTU	-	-	-	2.8175	-	3.59	-	1.1	-	4.41	2.17
Conventional Parameters												
pH	pH units	7.49	7.59	7.63	7.70	7.54	7.49	7.81	7.85	7.85	7.63	7.58
Turbidity	NTU	7.125	6.67	2.27	1.95	3.6	2.3	1.2	0.6	5.4	1.1	1.1
Specific conductivity	umhos/cm	1875	3442.86	4514.29	2566.67	1500	1600	1700	2300	3200	3400	3200
Hardness, as CaCO3 (T)	mg/L	481	740.43	1066.86	583.17	312	346	375	514	748	772	744
Hardness, as CaCO3 (D)	mg/L	468.5	716.00	1047.29	569.17	333	333	366	500	719	768	729
Total alkalinity, as CaCO3	mg/L	-	50.83	102.43	75.50	47	52	66	79	85	84	87
TDS	mg/L	1152.5	2131.43	2868.57	1540.00	895	980	910	1360	1880	2070	2040
TDS, calculated	mg/L	-	-	-	1700	-	-	-	1200	1800	1900	1900
TSS	mg/L	49	15.57	6.57	6.33	12	4	9	4	16	2	3
Total organic carbon	mg/L	18	14.40	13.99	10.76	9.8	-	11	9.8	11	11	11
Major Ions												
Chloride	mg/L	480	920.00	1250.00	618.33	360	350	390	520	800	820	830
Cyanide	mg/L	0.005	0.0075	0.01	0.00	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	-	0.10	0.10	0.09	0.11	0.10	< 0.10	0.11	0.10	0.11	< 0.10
Silica	mg/L	-	-	-	0.58	-	-	-	0.58	0.39	0.59	0.76
Sulfate	mg/L	53	141.00	237.14	220.00	120	120	140	200	280	270	310
Nutrients and Chlorophyll a												
Ammonia Nitrogen	mg/L	1.1575	7.114	6.69	1.25	0.29	0.59	0.15	0.66	1.3	2.2	2.6
Nitrate	mg/L	3.99	23.614	24.56	15.06	5.56	5.37	5.72	9.07	19.6	24.9	25.7
Nitrite	mg/L	0.1825	0.984	0.20	0.37	0.129	0.145	0.161	0.218	0.377	0.936	0.355
Nitrate + nitrite	mg/L	4.175	24.600	24.76	15.41	5.69	5.51	5.88	9.29	19.9	25.8	26.1
Total phosphorus	mg/L	0.14825	0.097	0.10	0.08	0.091	0.050	0.064	0.049	0.071	0.20	0.065
Orthophosphate (P)	mg/L	0.01	0.010	0.05	0.03	0.019	0.019	< 0.010	0.041	0.014	0.023	0.052
Total Metals												
Aluminum	mg/L	1.86425	0.44739	0.33157	0.15543	0.360	0.153	0.165	0.0772	0.365	0.0985	0.0739
Antimony	mg/L	0.00050	0.00076	0.00158	0.00083	0.00077	0.00076	0.00078	0.00092	0.0011	< 0.0010	0.00093
Arsenic	mg/L	0.00430	0.00548	0.01364	0.01752	0.0353	0.0265	0.0198	0.0176	0.0158	0.0125	0.0129
Barium	mg/L	0.12425	0.11467	0.15166	0.06772	0.0388	0.0392	0.0506	0.0638	0.0839	0.0838	0.0850
Beryllium	mg/L	0.00010	0.00014	0.00023	0.00007	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00020	< 0.00010
Bismuth	mg/L	-	0.00143	0.00229	0.00067	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010
Boron	mg/L	0.13975	0.35729	0.49571	0.32100	0.182	0.183	0.214	0.352	0.40	0.40	0.377
Cadmium	mg/L	0.00003	0.00005	0.00006	0.00003	0.000023	0.000037	0.000032	0.000019	0.000034	0.000036	0.000035
Calcium (total)	mg/L	148.25000	210.85714	304.14286	158.43333	85.3	93.6	105	137	204	206	205
Chromium	mg/L	0.00143	0.00146	0.00229	0.00067	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010
Cobalt	mg/L	-	0.00152	0.00263	0.00164	0.00152	0.00144	0.00134	0.00138	0.00194	0.00181	0.00193
Copper	mg/L	0.00334	0.00289	0.00288	0.00284	0.00384	0.00333	0.00307	0.00250	0.0032	0.0025	0.00245
Iron	mg/L	1.16650	0.42786	0.25829	0.21650	0.627	0.151	0.212	0.148	0.414	0.196	0.178
Lead	mg/L	0.00063	0.00051	0.00118	0.00127	0.00425	0.00194	0.00177	0.00073	0.00124	0.00099	0.00092
Lithium	mg/L	0.13400	0.11126	0.12904	0.04123	0.0317	0.0301	0.0335	0.0525	0.0453	0.0409	0.0451
Magnesium (total)	mg/L	26.90000	51.71429	74.84286	45.71667	24.1	27.4	27.4	42.0	58.2	62.6	56.7
Manganese	mg/L	0.44000	0.21596	0.97300	0.23283	0.209	0.145	0.176	0.126	0.244	0.324	0.382
Mercury	mg/L	0.00001	0.00001	0.00004	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00188	0.00277	0.00404	0.00493	0.0043	0.0041	0.0049	0.0049	0.0052	0.0048	0.0057
Nickel	mg/L	0.00448	0.00719	0.00934	0.00715	0.0044	0.0043	0.0046	0.0059	0.0093	0.0092	0.0096
Potassium (total)	mg/L	13.75000	24.72857	33.34286	21.38333	12.3	13.0	14.5	19.2	27.9	27.1	26.6

MEL-12	Sample date	Annual Average				6/30/2021	7/5/2021	7/18/2021	8/16/2021	9/19/2021	10/7/2021	10/11/2021
Parameter	Units	2018	2019	2020	2021	C1I6799	C1I8282	C1K4976	C1N5757	C1R5013	C1T6627	C1T8605
Selenium	mg/L	0.00011	0.00022	0.00044	0.00101	0.00097	0.00095	0.00093	0.00100	0.00116	0.00102	0.00098
Silicon	mg/L	-	1.07257	1.54071	0.30833	0.38	0.16	0.18	0.33	0.43	0.33	0.42
Silver	mg/L	0.00002	0.00003	0.00005	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000040	< 0.000040	< 0.000020
Sodium (total)	mg/L	131.25000	348.50000	480.14286	283.16667	153	176	175	264	358	377	349
Strontium	mg/L	3.46750	4.12714	5.44714	2.05333	1.22	1.19	1.56	1.89	2.53	2.42	2.73
Sulphur	mg/L	-	51.04286	86.97143	80.03333	40.9	42.9	48.4	68.9	109	107	104
Thallium	mg/L	0.00003	0.00005	0.00005	0.00003	0.000021	0.000023	0.000025	0.000025	0.000037	0.000036	0.000041
Tin	mg/L	0.00500	0.00714	0.01143	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.0050
Titanium	mg/L	0.01230	0.00714	0.01143	0.00333	0.0104	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.0050
Uranium	mg/L	0.00086	0.00128	0.00243	0.00293	0.00157	0.00154	0.00152	0.00228	0.00390	0.00413	0.00423
Vanadium	mg/L	0.00500	0.00714	0.01143	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.0050
Zinc	mg/L	0.02275	0.0231	0.02503	0.00767	0.0067	< 0.0050	< 0.0050	0.0099	0.013	< 0.010	0.0131
Zirconium	mg/L	-	0.00016	0.00024	0.00018	0.00018	< 0.00010	0.00048	< 0.00010	< 0.00020	0.00022	0.00017
Dissolved Metals												
Aluminum	mg/L	0.30075	0.09329	0.10551	0.06632	0.143	0.0897	0.110	0.0525	0.0653	0.0403	0.0401
Antimony	mg/L	0.00288	0.00065	0.00120	0.00083	0.00080	0.00079	0.00084	0.00091	0.0010	0.00092	< 0.0010
Arsenic	mg/L	0.00214	0.00419	0.01009	0.01487	0.0236	0.0234	0.0176	0.0167	0.0105	0.0107	0.0103
Barium	mg/L	0.11618	0.11049	0.15057	0.06715	0.0357	0.0414	0.0488	0.0637	0.0821	0.0872	0.0797
Beryllium	mg/L	0.00058	0.00011	0.00023	0.00007	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00020
Bismuth	mg/L	-	0.00114	0.00229	0.00067	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0020
Boron	mg/L	0.34875	0.34871	0.48700	0.30950	0.189	0.196	0.217	0.282	0.42	0.372	0.37
Cadmium	mg/L	0.00006	0.00004	0.00006	0.00003	0.000015	0.000026	0.000026	0.000020	0.000024	0.000036	0.000035
Calcium (Dissolved)	mg/L	-	201.85714	296.71429	155.33333	89.6	91.3	99.7	136	197	210	198
Chromium	mg/L	0.00575	0.00114	0.00229	0.00067	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0020
Cobalt	mg/L	-	0.00119	0.00251	0.00151	0.00139	0.00131	0.00122	0.00135	0.00149	0.00180	0.00191
Copper	mg/L	0.00217	0.00215	0.00232	0.00247	0.00295	0.00305	0.00267	0.00239	0.00216	0.00219	0.00238
Iron	mg/L	0.20585	0.06829	0.06449	0.06385	0.0321	0.0462	0.0767	0.0948	0.051	0.0584	0.056
Lead	mg/L	0.00115	0.00024	0.00047	0.00053	0.00062	0.00098	0.00085	0.00057	< 0.00040	0.00035	< 0.00040
Lithium	mg/L	0.13300	0.10886	0.12927	0.03957	0.0317	0.0327	0.0377	0.0373	0.0459	0.0425	0.0413
Magnesium (Dissolved)	mg/L	-	51.45714	74.10000	44.10000	26.6	25.6	28.3	38.9	55.5	59.2	57.1
Manganese	mg/L	0.24598	0.07831	0.93986	0.21617	0.0874	0.108	0.162	0.124	0.190	0.333	0.380
Mercury	mg/L	0.00001	0.00001	0.00004	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00605	0.00281	0.00404	0.00482	0.0043	0.0045	0.0046	0.0049	0.0050	0.0052	0.0047
Nickel	mg/L	0.00733	0.00617	0.00884	0.00673	0.0039	0.0041	0.0041	0.0059	0.0078	0.0088	0.0097
Potassium (Dissolved)	mg/L	-	24.14286	33.00000	20.93333	12.9	12.9	14.2	19.4	26.8	27.1	25.2
Selenium	mg/L	0.00058	0.00024	0.00042	0.00094	0.00099	0.00090	0.00086	0.00098	0.00097	0.00102	0.00091
Silicon	mg/L	-	0.92286	1.36471	0.22500	< 0.10	< 0.10	0.13	0.29	0.23	0.27	0.38
Silver	mg/L	0.00012	0.00002	0.00005	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000040	< 0.000020	< 0.000040
Sodium (Dissolved)	mg/L	-	343.28571	470.71429	273.16667	170	163	174	243	338	367	354
Strontium	mg/L	2.99250	4.21000	5.38286	2.02833	1.23	1.26	1.43	1.90	2.40	2.78	2.40
Sulphur	mg/L	-	49.45714	85.50000	79.36667	45.2	43.9	47.8	66.5	106	110	102
Thallium	mg/L	0.00007	0.00005	0.00005	0.00003	0.000019	0.000024	0.000023	0.000024	0.000031	0.000039	0.000037
Tin	mg/L	0.02875	0.00571	0.01143	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.010
Titanium	mg/L	0.02875	0.00571	0.01143	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.010
Uranium	mg/L	0.00096	0.00121	0.00239	0.00288	0.00161	0.00153	0.00153	0.00224	0.00373	0.00413	0.00412
Vanadium	mg/L	0.02875	0.00571	0.01143	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.010
Zinc	mg/L	0.03543	0.01367	0.02203	0.00515	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	0.0064	0.012
Zirconium	mg/L	-	0.00012	0.00023	0.00008	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	0.00013	< 0.00020

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-12 Parameter	Sample date		10/11/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		5.71	-	7.61	7.58	0.39	-
Turbidity	NTU	0.1	0.1	-	1.3	1.1	16.67	-
Specific conductivity	umhos/cm	1.0	1.9	1.0	3300	3200	3.08	62.07
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	744	744	0.00	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	772	729	5.73	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	87	87	0.00	0.00
TDS	mg/L	10	10	10	2100	2040	2.90	0.00
TDS, calculated	mg/L	1.0	1	-	2000	1900	5.13	-
TSS	mg/L	1	1	1	3	3	0.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	11	11	0.00	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	850	830	2.38	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.10	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.74	0.76	2.67	0.00
Sulfate	mg/L	1.0	1	1.0	320	310	3.17	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.12	0.050	2.6	2.6	0.00	82.35
Nitrate	mg/L	0.10	0.1	0.10	26.4	25.7	2.69	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.356	0.355	0.28	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	26.8	26.1	2.65	-
Total phosphorus	mg/L	0.020	0.11	0.020	0.11	0.065	51.43	138.46
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.049	0.052	5.94	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0726	0.0739	1.77	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.00096	0.00093	3.17	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.0131	0.0129	1.54	0.00
Barium	mg/L	0.0010	0.0011	0.0010	0.0861	0.0850	1.29	9.52
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.382	0.377	1.32	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000040	0.000035	13.33	0.00
Calcium (total)	mg/L	0.050	0.135	-	205	205	0.00	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00191	0.00193	1.04	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00243	0.00245	0.82	0.00
Iron	mg/L	0.010	0.01	0.010	0.143	0.178	21.81	0.00

QAQC MEL-12 Parameter	Sample date		10/11/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Lead	mg/L	0.00020	0.0002	0.00020	0.00091	0.00092	1.09	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0471	0.0451	4.34	0.00
Magnesium (total)	mg/L	0.050	0.05	-	56.5	56.7	0.35	-
Manganese	mg/L	0.0010	0.001	0.0010	0.374	0.382	2.12	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0052	0.0057	9.17	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0096	0.0096	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	27.3	26.6	2.60	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00098	0.00098	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	0.42	0.42	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	352	349	0.86	-
Strontium	mg/L	0.0010	0.001	0.0010	2.73	2.73	0.00	0.00
Sulphur	mg/L	3.0	3	3.0	107	104	2.84	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.000040	0.000041	2.47	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00428	0.00423	1.18	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.0189	0.0131	36.25	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.00019	0.00017	11.11	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0392	0.0401	2.27	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.00093	0.001	7.25	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.0109	0.0103	5.66	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0825	0.0797	3.45	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0002	66.67	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.002	66.67	0.00
Boron	mg/L	0.050	0.05	0.050	0.380	0.37	2.67	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000038	0.000035	8.22	0.00
Calcium (Dissolved)	mg/L	0.050	0.132	-	212	198	6.83	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.002	66.67	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00197	0.00191	3.09	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.00240	0.00238	0.84	0.00
Iron	mg/L	0.0050	0.0206	0.0050	0.0605	0.056	7.73	121.88
Lead	mg/L	0.00020	0.0002	0.00020	0.00032	0.0004	22.22	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0396	0.0413	4.20	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	58.6	57.1	2.59	-

QAQC MEL-12 Parameter	Sample date		10/11/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Manganese	mg/L	0.0010	0.001	0.0010	0.385	0.380	1.31	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0053	0.0047	12.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0097	0.0097	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	26.5	25.2	5.03	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00100	0.00091	9.42	0.00
Silicon	mg/L	0.10	0.1	0.10	0.39	0.38	2.60	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00004	66.67	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	366	354	3.33	-
Strontium	mg/L	0.0010	0.001	0.0010	2.67	2.40	10.65	0.00
Sulphur	mg/L	3.0	3	3.0	112	102	9.35	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.000038	0.000037	2.67	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.01	66.67	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.01	66.67	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00436	0.00412	5.66	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.01	66.67	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.0150	0.012	22.22	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.00016	0.0002	22.22	0.00
% Exceedance*							1%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-13	CCME	Sample date	Annual Average				7/18/2021	8/20/2021	9/18/2021	10/6/2021
Parameter	Guideline	Units	2018	2019	2020	2021	C1K6508	C1O4172	C1R5075	C1T6643
Field Measured										
Temperature		°C	-	10.08	10.26	7.06	10.69	9.75	7.9	4.87
pH		pH units	-	7.59	7.69	7.44	7.57	7.47	7.48	7.33
Conductivity		uS/cm	-	82.20	114.05	105.78	98.2	112.2	75.8	118.2
Dissolved oxygen		mg/L	-	11.01	123.60	10.31	11.2	11.44	11.88	NA
Dissolved oxygen		%	-	102.68	101.52	101.60	100.9	102.7	102.1	102.5
Turbidity		NTU	-	-	-	2.72	-	1.98	-	-
Conventional Parameters										
pH	6-9.5	pH units	7.34	7.47	7.32	7.26	7.14	7.44	7.36	7.34
Dissolved Oxygen		mg/L	10.45	10.35	10.33	10.42	11.0	10.6	10.7	10.3
Turbidity		NTU	0.28	0.20	0.36	0.41	0.3	0.2	< 0.1	0.5
Specific conductivity		umhos/cm	87.50	84.75	115.71	116.00	100	110	130	120
Hardness, as CaCO3 (T)		mg/L	140.00	23.40	29.81	30.92	27.0	29.8	34.5	31.1
Hardness, as CaCO3 (D)		mg/L	24.05	22.85	30.04	30.26	26.7	30.0	32.9	30.5
Total alkalinity, as CaCO3		mg/L	16.00	15.50	16.86	18.20	16	18	18	21
Carbonate, as CaCO3		mg/L	1.00	1.00	1.00	0.50	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3		mg/L	16.00	15.50	16.86	18.00	16	18	17	21
TDS		mg/L	147.50	58.75	80.00	75.00	50	160	60	40
TDS, calculated		mg/L	-	-	-	59.50	-	57	64	59
TSS		mg/L	1.00	1.00	1.36	1.30	2	1	1	< 1
Total organic carbon		mg/L	3.00	3.10	3.37	3.50	3.5	3.1	3.6	3.5
Dissolved organic carbon		mg/L	2.90	2.80	3.36	3.18	3.1	3.1	3.1	3.1
Major Ions										
Chloride	120	mg/L	-	-	18.21	18.80	15	19	22	19
Cyanide		mg/L	0.0050	0.0050	0.0050	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	0.005	mg/L	-	0.0015	0.0010	0.0033	0.0027	0.0018	< 0.0010	0.0073
Cyanide (WAD)		mg/L	0.0010	0.0010	0.0011	0.0007	< 0.0010	0.0013	< 0.0010	< 0.0010
Fluoride	0.12	mg/L	-	-	0.10	0.05	-	< 0.10	< 0.10	< 0.10
Silica		mg/L	0.32	0.45	0.33	0.29	0.37	0.24	0.27	0.33
Sulfate	128	mg/L	4.33	3.63	5.78	6.86	5.1	6.4	7.9	6.7
Nutrients and Chlorophyll a										
Ammonia Nitrogen		mg/L	0.09	0.11	0.12	0.03	< 0.050	< 0.050	< 0.050	< 0.050
Unionized Ammonia, calculated internally		mg/L	-	-	-	-	-	-	-	-
Nitrate	13	mg/L	0.10	0.10	0.11	0.06	< 0.10	< 0.10	0.10	< 0.10
Nitrite	0.06	mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite		mg/L	0.10	0.10	0.11	0.06	< 0.10	< 0.10	0.10	< 0.10
Total Kjeldahl nitrogen		mg/L	0.16	0.22	0.22	0.22	0.21	0.22	0.23	0.18
Biochemical Oxygen Demand, 5 Day		mg/L	-	-	-	-	-	-	-	-
Total phosphorus (SM4500-PBF)		mg/L	0.020	0.021	0.020	0.014	< 0.020	-	0.024	< 0.020
Total phosphorus (SW6020)		mg/L	-	-	0.011	0.009	0.0076	0.0053	0.0106	0.0070
Dissolved phosphorus		mg/L	-	-	0.006	0.004	0.0051	0.0053	0.0033	0.0038
Orthophosphate (P)		mg/L	0.010	0.010	0.010	0.005	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum		mg/L	1.66748	0.00695	0.00680	0.00644	0.00701	0.00574	0.00838	0.00425
Antimony		mg/L	0.00050	0.00050	0.00002	0.00001	< 0.000020	< 0.000020	0.000023	< 0.000020

MEL-13	CCME	Sample date	Annual Average				7/18/2021	8/20/2021	9/18/2021	10/6/2021
Parameter	Guideline	Units	2018	2019	2020	2021	C1K6508	C1O4172	C1R5075	C1T6643
Arsenic	0.005	mg/L	0.00104	0.00036	0.00051	0.00048	0.000503	0.000528	0.000499	0.000468
Barium		mg/L	0.03745	0.00755	0.00862	0.00914	0.00864	0.00880	0.00893	0.00976
Beryllium		mg/L	0.00010	0.00010	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Bismuth		mg/L	-	0.00100	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Boron		mg/L	0.07650	0.05000	0.01000	0.00620	< 0.01	< 0.01	0.011	< 0.01
Cadmium	0.00006	mg/L	0.00001	0.00001	0.00001	0.000004	0.0000097	< 0.0000050	< 0.0000050	< 0.0000050
Calcium (total)		mg/L	43.83000	7.22500	9.06429	9.34800	8.25	9.00	10.3	9.40
Chromium		mg/L	0.00100	0.00100	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Cobalt		mg/L	-	0.00020	0.00003	0.00003	0.0000431	0.0000246	0.0000376	0.0000320
Copper	0.002	mg/L	0.00128	0.00072	0.00085	0.00085	0.000838	0.000706	0.000894	0.000890
Iron	0.3	mg/L	0.11925	0.02825	0.03201	0.02414	0.0411	0.0142	0.0184	0.0206
Lead	0.001	mg/L	0.00020	0.00020	0.00002	0.00002	0.0000240	0.0000310	0.0000110	0.0000069
Lithium		mg/L	0.03775	0.00200	0.00143	0.00138	0.00112	0.00136	0.00152	0.00128
Magnesium (total)		mg/L	7.49750	1.30000	1.74214	1.84200	1.56	1.79	2.14	1.85
Manganese		mg/L	0.07118	0.00773	0.00777	0.00707	0.0144	0.00648	0.00570	0.00453
Mercury	0.000026	mg/L	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00108	0.00100	0.00012	0.00016	0.000109	0.000122	0.000165	0.000280
Nickel	0.025	mg/L	0.00158	0.00100	0.00075	0.00074	0.000802	0.000704	0.000723	0.000690
Potassium (total)		mg/L	4.20575	0.95700	1.13000	1.12700	0.985	1.09	1.28	1.09
Selenium	0.001	mg/L	0.00010	0.00010	0.00004	0.00003	< 0.000040	0.000042	0.000046	< 0.000040
Silicon		mg/L	-	0.19425	0.14931	0.16800	0.196	0.161	0.153	0.145
Silver	0.0025	mg/L	0.00002	0.00002	0.00001	0.000003	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Sodium (total)		mg/L	35.88750	5.24000	7.75643	8.21800	6.57	8.11	10.0	8.00
Strontium		mg/L	0.98660	0.04050	0.06401	0.06360	0.0524	0.0641	0.0737	0.0625
Sulphur		mg/L	-	3.00000	3.00000	1.50000	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	0.0008	mg/L	0.00002	0.00001	0.000002	0.000002	< 0.0000020	0.0000029	< 0.0000020	< 0.0000020
Tin		mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium		mg/L	0.00500	0.00500	0.00053	0.00039	0.00094	< 0.00050	< 0.00050	< 0.00050
Uranium	0.015	mg/L	0.00032	0.00010	0.00002	0.00003	0.0000215	0.0000212	0.0000330	0.0000278
Vanadium		mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	0.03	mg/L	0.00643	0.00500	0.00045	0.00077	0.00103	0.00109	0.00074	0.00040
Zirconium		mg/L	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals										
Aluminum		mg/L	0.00785	0.00300	0.00452	0.00262	0.00115	0.00278	0.00446	0.00209
Antimony		mg/L	0.00050	0.00050	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Arsenic	0.005	mg/L	0.00036	0.00034	0.00048	0.00045	0.000450	0.000482	0.000446	0.000445
Barium		mg/L	0.00763	0.00728	0.00853	0.00885	0.00846	0.00848	0.00878	0.00907
Beryllium		mg/L	0.00010	0.00010	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Bismuth		mg/L	-	0.00100	0.00001	0.00000	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Boron		mg/L	0.05000	0.05000	0.01000	0.00780	< 0.01	0.014	0.01	< 0.01
Cadmium	0.00006	mg/L	0.00001	0.00001	0.00001	0.000003	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Calcium (Dissolved)		mg/L	7.47500	7.06500	9.10714	9.13800	8.18	9.04	9.78	9.18
Chromium		mg/L	0.00100	0.00100	0.00010	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Cobalt		mg/L	-	0.00020	0.00002	0.00002	0.0000144	0.0000181	0.0000274	0.0000151
Copper	0.002	mg/L	0.00072	0.00087	0.00080	0.00081	0.000770	0.000782	0.000799	0.000872

MEL-13	CCME	Sample date	Annual Average				7/18/2021	8/20/2021	9/18/2021	10/6/2021
Parameter	Guideline	Units	2018	2019	2020	2021	C1K6508	C1O4172	C1R5075	C1T6643
Iron	0.3	mg/L	0.00833	0.00798	0.01026	0.00612	0.0084	0.0038	0.0048	0.0059
Lead	0.001	mg/L	0.00020	0.00020	0.00001	0.000004	0.0000079	< 0.0000050	0.0000051	< 0.0000050
Lithium		mg/L	0.00200	0.00200	0.00147	0.00128	0.00112	0.00133	0.00151	0.00120
Magnesium (Dissolved)		mg/L	1.30750	1.27250	1.76929	1.81000	1.53	1.81	2.06	1.84
Manganese		mg/L	0.00105	0.00480	0.00127	0.00078	0.00224	0.000282	0.000309	0.000530
Mercury	0.000026	mg/L	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00100	0.00385	0.00013	0.00015	0.000097	0.000201	0.000149	0.000170
Nickel	0.025	mg/L	0.00100	0.00100	0.00072	0.00070	0.000794	0.000694	0.000594	0.000682
Potassium (Dissolved)		mg/L	0.93750	0.92750	1.13714	1.12080	0.984	1.16	1.21	1.09
Selenium	0.001	mg/L	0.00010	0.00010	0.00004	0.00004	< 0.000040	0.000045	0.000053	< 0.000040
Silicon		mg/L	-	0.18125	0.14493	0.15160	0.185	0.154	0.149	0.138
Silver	0.0025	mg/L	0.00002	0.00002	0.00001	0.000003	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Sodium (Dissolved)		mg/L	5.41000	5.09000	7.86714	8.14000	6.53	8.18	9.88	8.18
Strontium		mg/L	0.04910	0.04045	0.06476	0.06206	0.0523	0.0629	0.0704	0.0621
Sulphur		mg/L	-	3.00000	3.00000	1.82000	< 3.0	< 3.0	3.1	< 3.0
Thallium	0.0008	mg/L	0.00001	0.00001	0.000002	0.000001	< 0.0000020	< 0.0000020	0.0000022	< 0.0000020
Tin		mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium		mg/L	0.00500	0.00500	0.00053	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Uranium	0.015	mg/L	0.00010	0.00010	0.00002	0.00003	0.0000144	0.0000218	0.0000297	0.0000280
Vanadium		mg/L	0.00500	0.00500	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	0.03	mg/L	0.00500	0.00500	0.00052	0.00088	0.00069	0.00069	0.00233	0.00032
Zirconium		mg/L	-	-	-	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Radionuclides										
Radium-226		Bq/l	0.0050	0.0050	0.0059	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Volatile Organics										
Benzene	0.37	mg/L	0.0002	0.0002	0.0002	0.0001	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	0.09	mg/L	0.0002	0.0002	0.0002	0.0001	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	0.002	mg/L	0.0002	0.0002	0.0002	0.0033	< 0.00020	0.016	< 0.00020	< 0.00020
Xylenes		mg/L	0.0004	0.0004	0.0004	0.0002	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes		mg/L	0.0004	0.0004	0.0004	0.0002	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene		mg/L	0.0002	0.0002	0.0002	0.0001	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX		mg/L	0.0250	0.0250	0.0250	0.0125	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)		mg/L	0.0250	0.0250	0.0250	0.0125	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)		mg/L	0.1000	0.1000	0.1000	0.0500	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)		mg/L	0.2000	0.2000	0.2000	0.1000	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)		mg/L	0.2000	0.2000	0.2000	0.1000	< 0.2	< 0.2	< 0.2	< 0.2

Footnotes:

All 2021 samples have been included in the Annual average, except sample on July 13.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-13 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.21	-	7.58	7.36	2.95	-
Dissolved Oxygen	mg/L		10.4	-	10.7	10.7	0.00	-
Turbidity	NTU	0.1	0.1	0.1	0.5	0.1	133.33	0.00
Specific conductivity	umhos/cm	1.0	86	1.0	170	130	26.67	195.40
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	34.0	34.5	1.46	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	32.5	32.9	1.22	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	20	18	10.53	0.00
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1	-	20	17	16.22	-
TDS	mg/L	10	10	10	60	60	0.00	0.00
TDS, calculated	mg/L	1.0	26	-	76	64	17.14	-
TSS	mg/L	1	1	1	2	1	66.67	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	3.6	3.6	0.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	3.1	3.1	0.00	0.00
Major Ions								
Chloride	mg/L	1.0	23	1.0	32	22	37.04	183.33
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.0010	0.001	0.0010	0.0012	0.001	18.18	0.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.26	0.27	3.77	0.00
Sulfate	mg/L	1.0	2.8	1.0	8.9	7.9	11.90	94.74
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Nitrate	mg/L	0.10	0.10	0.10	0.13	0.10	26.09	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.10	-	0.13	0.10	26.09	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.18	0.23	24.39	0.00
Total phosphorus	mg/L	0.0020	0.0035	0.0020	0.0092	0.0106	14.14	54.55
Total phosphorus	mg/L	0.020	0.032	0.020	0.047	0.024	64.79	46.15
Dissolved phosphorus	mg/L	0.0020	0.002	0.0020	0.0035	0.0033	5.88	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.00050	0.0005	0.00050	0.00723	0.00838	14.73	0.00
Antimony	mg/L	0.000020	0.00002	0.000020	0.000023	0.000023	0.00	0.00
Arsenic	mg/L	0.000020	0.00002	0.000020	0.000512	0.000499	2.57	0.00
Barium	mg/L	0.000020	0.000644	0.000020	0.00922	0.00893	3.20	187.95

QAQC MEL-13 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.1	0.00	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00
% Exceedance*							2%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-14 Parameter	MDMER MAX GRAB	MDMER MAX MEAN	MEL-14 MAX GRAB	MEL-14 MAX MEAN	Sample date	Annual Average				7/14/2021	7/18/2021	7/25/2021	8/1/2021	8/6/2021	8/10/2021	8/16/2021	8/22/2021	8/29/2021	9/5/2021
						Unit	2018	2019	2020	2021	C1K1363	C1K4967	C1L2631	C1L9430	C1M7880	C1M9573	C1N5746	C1O3957	C1P1764
Field Measured																			
Temperature					°C	-	13.12	10.79	9.59	14.6	12.5	13.8	13.2	10.8	10.3	10.2	10.4	14.3	14.4
pH	6.0 - 9.5	6.0 - 9.5			pH units	-	7.22	7.10	7.24	6.96	7.39	6.83	7.32	7.17	6.96	7.35	7.15	7.01	7.34
Conductivity					µS/cm	-	1929.44	3506.00	2644.62	1730	1913	1960	2049.5	2185	2233	2082	2488	2766	2807
Dissolved oxygen					mg/L	-	9.17	11.91	11.13	-	11.29	7.28	-	-	-	10.73	9.47	8.89	8.43
Dissolved oxygen					%	-	82.40	93.87	92.08	-	106	70.8	79.9	-	-	96.1	85.3	87.3	84
Turbidity					NTU	-	-	-	7.84	-	-	0.6	1.01	1.98	0.92	0.72	0.87	0.52	1.05
Conventional Parameters																			
pH	6.0 - 9.5	6.0 - 9.5	6.0 - 9.5	6.0 - 9.5	pH units	7.22	7.46	7.47	7.62	7.42	7.36	7.58	7.73	7.73	7.67	7.67	7.56	7.57	7.63
Dissolved Oxygen					mg/L	10.35	9.91	10.13	10.21	9.12	11.0	8.80	9.56	9.34	10.5	10.0	11.1	10.9	10.7
Turbidity					NTU	0.81	1.94	0.90	0.45	0.4	0.2	0.3	0.4	0.5	0.4	0.2	< 0.1	0.4	0.5
Specific conductivity					µmhos/cm	1854.55	1905.56	3432.00	2605.88	1700	1700	2000	2100	2200	2200	2300	2400	2700	2600
Hardness, as CaCO3 (T)					mg/L	421.11	362.00	782.61	571.65	349	375	412	447	474	485	500	530	568	582
Hardness, as CaCO3 (D)					mg/L	428.12	354.86	761.08	577.76	360	360	433	446	462	485	480	520	593	605
Total alkalinity, as CaCO3					mg/L	33.03	29.86	70.28	67.18	45	42	48	67	68	68	71	68	67	70
Carbonate, as CaCO3					mg/L	0.50	0.50	0.50	0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3					mg/L	32.93	29.79	70.04	66.88	45	42	48	67	68	67	70	68	67	70
TDS			4500	3500	mg/L	1130.00	1171.39	2075.60	1607.94	990	995	1180	1230	1250	1480	1380	1520	1730	1670
TDS, calculated					mg/L	-	-	-	1470.00	890	900	1000	1100	1200	1200	1400	1600	1500	
TSS	30	15	30	15	mg/L	9.23	3.39	4.96	3.29	3	4	2	4	3	4	5	3	3	3
Total organic carbon					mg/L	7.99	6.96	10.10	8.42	6.1	5.9	6.3	8.5	8.4	8.1	8.3	7.6	7.9	8.5
Dissolved organic carbon					mg/L	6.62	6.24	9.47	7.71	5.6	5.4	6.0	7.7	7.3	7.3	7.6	7.3	7.6	7.9
Major Ions																			
Chloride					mg/L	481.82	473.57	886.80	635.29	390	400	450	480	530	530	530	590	670	630
Cyanide	1	0.5	1	0.5	mg/L	0.0025	175.1296	0.0045	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)					mg/L	-	0.0012	0.0084	0.0029	0.0027	0.0018	0.0025	0.0029	0.0056	0.0031	0.0038	0.0040	< 0.0010	0.0016
Cyanide (WAD)					mg/L	0.0009	0.0007	0.0023	0.0012	0.0012	< 0.0010	0.0010	< 0.0010	0.0010	< 0.0010	0.0014	0.0016	0.0013	0.0012
Fluoride					mg/L	-	-	0.05	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Silica					mg/L	0.53	0.87	2.49	0.63	0.11	0.17	5.2	0.44	0.68	0.57	0.52	0.26	0.35	0.11
Sulfate					mg/L	46.11	63.29	192.40	224.12	130	140	140	150	170	180	190	210	260	260
Nutrients and Chlorophyll a																			
Ammonia Nitrogen			18	14	mg/L	1.57	3.84	3.48	0.86	0.49	0.079	0.28	0.30	-	0.58	0.62	0.49	0.82	0.12
Unionized Ammonia, calculated internally	1	0.5			mg/L	-	-	-	0.002	0.0012	0.00043	0.00047	0.00045	-	0.001	0.0026	0.0013	0.0022	0.00068
Nitrate					mg/L	5.47	12.67	16.35	13.89	5.39	5.79	6.15	6.31	7.66	7.51	8.86	11.1	14.5	15.4
Nitrite					mg/L	0.21	0.50	0.27	0.26	0.235	0.168	0.152	0.162	0.220	0.216	0.209	0.252	0.395	0.156
Nitrate + nitrite					mg/L	5.68	13.16	16.61	14.16	5.62	5.95	6.30	6.47	7.88	7.73	9.07	11.4	14.9	15.6
Total Kjeldahl nitrogen					mg/L	2.03	4.13	4.35	1.37	0.91	< 0.20	0.72	0.51	1.4	1.1	1.9	2.0	1.2	< 0.50
Biochemical Oxygen Demand, 5 Day					mg/L	-	1.07	1.39	1.12	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Total phosphorus			4	2	mg/L	0.04	0.02	0.03	0.03	< 0.020	< 0.020	0.023	< 0.020	0.046	0.037	0.033	< 0.020	0.032	0.032
Orthophosphate (P)					mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.021	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals																			
Aluminum			3	2	mg/L	1.20130	0.23849	0.56161	0.38812	0.337	0.326	0.205	0.384	0.404	0.410	0.431	0.420	0.440	0.394
Antimony					mg/L	0.00025	0.00024	0.00089	0.00078	0.00076	0.00073	0.00076	0.00079	0.00090	0.00086	0.00088	0.00090	< 0.0010	0.00091
Arsenic	0.6	0.3	0.6	0.3	mg/L	0.00171	0.00169	0.01532	0.00462	0.00417	0.00726	0.00976	0.00946	0.00599	0.00483	0.00387	0.00380	0.00382	0.00382
Barium					mg/L	0.10743	0.05624	0.11308	0.06804	0.0457	0.0476	0.0532	0.0552	0.0608	0.0627	0.0619	0.0683	0.0726	0.0690
Beryllium					mg/L	0.00005	0.00006	0.00011	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00010
Bismuth					mg/L	0.00050	0.00064	0.00111	0.00065	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Boron					mg/L	0.22310	0.29215	0.37322	0.31453	0.203	0.204	0.234	0.258	0.245	0.253	0.335	0.322	0.31	0.351
Cadmium					mg/L	0.00001	0.00002	0.00003	0.00002	0.000025	0.000024	0.000019	0.000018	0.000027	0.000021	0.000021	0.000021	0.000030	0.000022
Calcium (total)					mg/L	130.55000	101.80714	222.86957	156.92353	94.7	105	114	126	130	136	148	156	159	159
Chromium					mg/L	0.00050	0.00064	0.00111	0.00065	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Cobalt					mg/L	0.00066	0.00052	0.00177	0.00138	0.00118	0.00113	0.00118	0.00124	0.00152	0.00133	0.00129	0.00125	0.00139	0.00116
Copper	0.6	0.3	0.4	0.2	mg/L	0.00119	0.00094	0.00193	0.00197	0.00214	0.00190	0.00185	0.00259	0.00224	0.00198	0.00199	0.00173	0.0018	0.00199
Iron					mg/L	0.13130	0.28057	0.07448	0.02859	0.033	0.026	0.033	0.029	0.053	0.021	0.018	0.030	< 0.020	0.023
Lead	0.2	0.1	0.2	0.1	mg/L	0.00014	0.00015	0.00027	0.00015	0.00024	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00020
Lithium					mg/L	0.12867	0.06372	0.09250	0.04179	0.0345	0.0326	0.0410	0.0436	0.0388	0.0436	0.0504	0.0443	0.0407	0.0438
Magnesium (total)					mg/L	23.06600	26.21429	54.91739	43.66471	27.3	27.1	31.2	32.2	36.6	35.1	40.5	39.1	43.4	45.3
Manganese					mg/L	0.19980	0.03345	0.50993	0.16481	0.126	0.130	0.128	0.147	0.137	0.117	0.109	0.122	0.149	0.0785
Mercury					mg/L	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum					mg/L	0.00111	0.00138	0.00364	0.00487	0.0043	0.0045	0.0046	0.0048	0.0051	0.0051	0.0048	0.0046	0.0043	0.0047
Nickel	1	0.5	1	0.5	mg/L	0.00244	0.00307	0.00630	0.00583	0.0040	0.0036	0.0036	0.0040	0.0052	0.0047	0.0055	0.0065	0.0065	0.0052
Potassium (total)					mg/L	13.48600	13.22143	24.70000	21.40000	13.6	13.7	15.9	16.1	18.1	18.6	19.2	21.8	21.9	21.9
Selenium					mg/L	0.00005	0.00010	0.00043	0.00095	0.00091	0.00088	0.00085	0.00083	0.00105	0.00106	0.00098	0.00092	0	

MEL-14 Parameter	MDMER MAX GRAB	MDMER MAX MEAN	MEL-14 MAX GRAB	MEL-14 MAX MEAN	Sample date	Annual Average				7/14/2021	7/18/2021	7/25/2021	8/1/2021	8/6/2021	8/10/2021	8/16/2021	8/22/2021	8/29/2021	9/5/2021	
						Unit	2018	2019	2020	2021	C1K1363	C1K4967	C1L2631	C1L9430	C1M7880	C1M9573	C1N5746	C1O3957	C1P1764	C1Q0246
						mg/L	0.00030	0.00005	0.00010	0.00007	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Beryllium					mg/L	0.00030	0.00005	0.00010	0.00007	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010		
Bismuth					mg/L	0.00050	0.00050	0.00104	0.00071	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010		
Boron					mg/L	0.33380	0.28800	0.37391	0.31759	0.208	0.210	0.220	0.262	0.242	0.244	0.263	0.295	0.331	0.35	
Cadmium					mg/L	0.00003	0.00002	0.00003	0.00002	0.000026	0.000025	0.000025	0.000018	0.000025	0.000020	0.000020	0.000020	0.000020	< 0.00020	
Calcium (Dissolved)					mg/L	-	-	-	158.90000	98.9	123	122	98.4	127	137	143	165	168		
Chromium					mg/L	0.00295	0.00050	0.00104	0.00071	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010		
Cobalt					mg/L	0.00058	0.00050	0.00174	0.00135	0.00118	0.00110	0.00117	0.00123	0.00143	0.00132	0.00127	0.00124	0.00139	0.00116	
Copper	0.6	0.3	0.4	0.2	mg/L	0.00080	0.00085	0.00169	0.00183	0.00204	0.00180	0.00194	0.00205	0.00204	0.00191	0.00188	0.00174	0.00168	0.00171	
Iron					mg/L	0.03384	0.06940	0.04495	0.01064	0.0100	0.0147	0.0291	0.0126	0.0079	0.0083	0.0056	0.0062	< 0.0050	< 0.010	
Lead	0.2	0.1	0.2	0.1	mg/L	0.00049	0.00012	0.00021	0.00016	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00040	
Lithium					mg/L	0.13760	0.06343	0.09490	0.04114	0.0353	0.0362	0.0372	0.0468	0.0371	0.0405	0.0338	0.0415	0.0419	0.0418	
Magnesium (Dissolved)					mg/L	-	-	-	43.94118	27.6	27.9	30.9	33.4	35.0	34.7	38.0	39.3	43.9	45.3	
Manganese					mg/L	0.16514	0.02603	0.50258	0.16156	0.125	0.129	0.130	0.142	0.127	0.113	0.106	0.117	0.155	0.0898	
Mercury					mg/L	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	
Molybdenum					mg/L	0.00347	0.00253	0.00366	0.00488	0.0046	0.0043	0.0047	0.0047	0.0049	0.0046	0.0046	0.0050	0.0050	0.0049	
Nickel	1	0.5	1	0.5	mg/L	0.00242	0.00309	0.00612	0.00581	0.0039	0.0035	0.0039	0.0038	0.0051	0.0047	0.0052	0.0055	0.0065	0.0054	
Potassium (Dissolved)					mg/L	-	-	-	21.63529	14.0	14.0	16.0	16.7	18.0	18.8	19.9	22.5	23.0		
Selenium					mg/L	0.00030	0.00009	0.00041	0.00095	0.00089	0.00079	0.00084	0.00078	0.00102	0.00100	0.00097	0.00089	0.00113	0.00103	
Silicon					mg/L	0.59000	0.47379	0.89730	0.18059	< 0.10	0.11	0.18	0.24	0.29	0.26	0.26	0.17	0.17	< 0.20	
Silver					mg/L	0.00006	0.00001	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	
Sodium (Dissolved)					mg/L	-	-	-	273.64706	173	170	196	207	221	226	238	253	289	284	
Strontium					mg/L	2.65220	1.98286	3.93913	2.08882	1.43	1.39	1.70	1.77	1.80	1.93	1.77	1.99	2.26	2.10	
Sulphur					mg/L	-	23.95714	68.07826	79.26471	47.3	45.2	51.3	54.9	61.6	60.6	63.6	70.3	79.1	83.7	
Thallium					mg/L	0.00004	0.00002	0.00003	0.00003	0.000027	0.000024	0.000024	0.000024	0.000024	0.000025	0.000024	0.000021	0.000036	0.000031	
Tin					mg/L	0.01611	0.00250	0.00522	0.00353	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.010	
Titanium					mg/L	0.01611	0.00250	0.00522	0.00353	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.010	
Uranium					mg/L	0.00031	0.00022	0.00107	0.00121	0.00010	< 0.00010	< 0.00010	0.00076	0.00058	0.00063	0.00099	0.00078	0.00109	0.00139	
Vanadium					mg/L	0.01611	0.00250	0.00522	0.00353	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.010	
Zinc	1	0.5	0.8	0.4	mg/L	0.01590	0.00454	0.00643	0.00594	< 0.00050	< 0.00050	0.0170	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.010	
Zirconium					mg/L	0.00005	0.00005	0.00010	0.00007	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	
Radionuclides																				
Radium-226	1.11	0.37			Bq/l	0.00	0.02	0.06	0.01	0.0050	< 0.0050	0.0090	0.010	0.010	0.0080	0.011	0.015	0.011	0.014	
Toxicity																				
Daphnia 48 h static acute test - LC50					%	-	-	-	-	-	>100	>100	>100	-	>100	>100	>100	>100	>100	
Fathead minnow 7 d growth test - IC25					%	-	-	-	-	-	-	-	-	-	>100 (N/A, N/A)	-	-	-	-	
Fathead minnow 7 d mortality test - LC50					%	-	-	-	-	-	-	-	-	-	>100 (N/A, N/A)	-	-	-	-	
Daphnia 48 h Static Acute Test - EC50					%	-	-	-	-	-	>100	>100	>100	>100	>100	>100	>100	>100	>100	
LC50 (96h) - Rainbow Trout					%	-	-	-	-	-	>100	>100	>100	>100	>100	>100	>100	>100	>100	
Lemna Minor Biomasse - IC25					%	-	-	-	-	-	-	-	-	-	>97 (72.8, N/A)	-	-	-	-	
Lemna Minor Frond Increase - IC25					%	-	-	-	-	-	-	-	-	-	60.7 (34.5, 80.7)	-	-	-	-	
Hyalella 14d Growth Test - IC25					%	-	-	-	-	-	-	-	-	-	>100 (N/A, N/A)	-	-	-	-	
Hyalella 14d Survival Test - LC50					%	-	-	-	-	-	-	-	-	-	>100 (N/A, N/A)	-	-	-	-	
Daphnia Magna - LC50 Survival - Chronic tox					%	-	-	-	-	-	-	-	-	-	>100 (N/A, N/A)	-	-	-	-	
Daphnia Magna - IC25 Reproduction - Chronic tox					%	-	-	-	-	-	-	-	-	-	49.5 (8.6, >100)	-	-	-	-	
Daphnia Magna - IC25 Growth - Chronix tox					%	-	-	-	-	-	-	-	-	-	>100 (N/A, N/A)	-	-	-	-	
Volatile Organics																				
Benzene					mg/L	0.00010	0.00010	0.00010	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	
Ethylbenzene					mg/L	0.00010	0.00010	0.00010	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	
Toluene					mg/L	0.00012	0.00010	0.00013	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	
Xylenes					mg/L	0.00020	0.00020	0.00020	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	
m,p-Xylenes					mg/L	0.00020	0.00020	0.00020	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	
o-Xylene					mg/L	0.00010	0.00010	0.00010	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	
F1 (C6-C10)-BTEX					mg/L	0.01250	0.01250	0.01250	0.01250	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	
F1 (C6-C10)					mg/L	0.01250	0.01250	0.01250	0.01250	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	
F2 (C10-C16)					mg/L	0.05000	0.50000	0.05000	0.05000	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
F3 (C16-C34)					mg/L	0.10000	0.10000	0.10000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
F4 (C34-C50)																				

MEL-14 Parameter	MDMER MAX GRAB	MDMER MAX MEAN	MEL-14 MAX GRAB	MEL-14 MAX MEAN	Sample date Unit	9/12/2021 C1Q8731	9/19/2021 C1R4984	9/20/2021 C1R4984	9/27/2021 C1S5733	10/3/2021 C1T1487	10/5/2021 C1T4691	10/11/2021 C1T8612
Field Measured												
Temperature					°C	7.1	6	4.7	4.2	6.5	4.7	5.3
pH	6.0 - 9.5	6.0 - 9.5			pH units	7.47	7.43	7.51	7.52	7.52	7.4	6.76
Conductivity					uS/cm	2922	3365	3246	2754	3682	3175	3601
Dissolved oxygen					mg/L	13.46	12.56	11.2	18.41	9.7	N/A	12.17
Dissolved oxygen					%	111	102	88	109.3	80.1	N/A	97.2
Turbidity					NTU	90	-	2.32	0.54	0.532	-	0.92
Conventional Parameters												
pH	6.0 - 9.5	6.0 - 9.5	6.0 - 9.5	6.0 - 9.5	pH units	7.71	7.64	7.69	7.76	7.70	7.65	7.50
Dissolved Oxygen					mg/L	10.9	10.8	10.6	9.54	10.8	9.68	10.2
Turbidity					NTU	0.2	0.5	1.2	0.4	0.6	0.7	0.7
Specific conductivity					umhos/cm	2800	3200	3000	3300	3600	3300	3200
Hardness, as CaCO3 (T)					mg/L	590	717	694	733	786	716	760
Hardness, as CaCO3 (D)					mg/L	647	703	682	802	751	765	728
Total alkalinity, as CaCO3					mg/L	73	72	75	83	81	80	64
Carbonate, as CaCO3					mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3					mg/L	73	72	74	82	81	79	64
TDS			4500	3500	mg/L	1540	1820	2020	2110	2260	2020	2140
TDS, calculated			4500	3500	mg/L	1600	1800	1800	1900	2000	2000	1900
TSS	30	15	30	15	mg/L	3	2	4	3	3	2	3
Total organic carbon					mg/L	9.2	9.3	8.9	11	11	10	8.2
Dissolved organic carbon					mg/L	8.1	8.7	8.2	9.5	9.6	9.3	7.9
Major Ions												
Chloride					mg/L	640	770	780	810	920	840	840
Cyanide	1	0.5	1	0.5	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)					mg/L	< 0.0010	0.0014	0.0014	0.0053	0.0037	0.0034	0.0048
Cyanide (WAD)					mg/L	0.0015	0.0020	0.0015	0.0012	0.0012	0.0017	0.0015
Fluoride					mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Silica					mg/L	0.050	0.39	0.27	0.36	0.23	0.37	0.70
Sulfate					mg/L	250	270	300	270	280	300	310
Nutrients and Chlorophyll a												
Ammonia Nitrogen			18	14	mg/L	0.099	1.3	0.83	1.2	2.0	1.9	2.7
Unionized Ammonia, calculated internally	1	0.5			mg/L	0.00043	0.0047	0.00325	0.0046	-	-	-
Nitrate					mg/L	15.4	19.8	18.1	19.4	24.8	23.8	26.1
Nitrite					mg/L	0.112	0.358	0.294	0.309	0.442	0.469	0.352
Nitrate + nitrite					mg/L	15.5	20.1	18.4	19.8	25.2	24.3	26.5
Total Kjeldahl nitrogen					mg/L	2.2	2.0	1.5	1.3	2.1	1.6	2.5
Biochemical Oxygen Demand, 5 Day					mg/L	< 2	< 2	< 2	< 2	< 2	3	< 2
Total phosphorus			4	2	mg/L	0.031	0.031	0.047	< 0.020	0.025	< 0.020	0.079
Orthophosphate (P)					mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.010	< 0.010
Total Metals												
Aluminum			3	2	mg/L	0.377	0.437	0.446	0.438	0.375	0.351	0.423
Antimony					mg/L	< 0.0010	0.0010	< 0.0010	0.00097	0.00091	< 0.0010	0.00090
Arsenic	0.6	0.3	0.6	0.3	mg/L	0.00370	0.00277	0.00310	0.00380	0.00366	0.00369	0.00226
Barium					mg/L	0.0711	0.0777	0.0788	0.0808	0.0863	0.0796	0.0854
Beryllium					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00010	< 0.00010	< 0.00020	< 0.00010
Bismuth					mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Boron					mg/L	0.33	0.38	0.38	0.380	0.379	0.38	0.403
Cadmium					mg/L	0.000021	0.000028	< 0.000020	0.000019	0.000027	0.000033	0.000036
Calcium (total)					mg/L	164	197	190	199	215	194	207
Chromium					mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Cobalt					mg/L	0.00111	0.00157	0.00140	0.00152	0.00169	0.00159	0.00187
Copper	0.6	0.3	0.4	0.2	mg/L	0.0019	0.0020	0.0019	0.00194	0.00201	0.0020	0.00161
Iron					mg/L	< 0.020	0.030	0.060	0.038	0.031	0.024	0.017
Lead	0.2	0.1	0.2	0.1	mg/L	< 0.00040	< 0.00040	< 0.00040	0.00024	< 0.00020	< 0.00040	< 0.00020
Lithium					mg/L	0.0377	0.0422	0.0425	0.0430	0.0398	0.0414	0.0505
Magnesium (total)					mg/L	44.0	54.7	53.3	57.3	60.3	56.1	58.8
Manganese					mg/L	0.0583	0.194	0.162	0.200	0.286	0.279	0.379
Mercury					mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum					mg/L	0.0048	0.0052	0.0052	0.0058	0.0053	0.0047	0.0050
Nickel	1	0.5	1	0.5	mg/L	0.0054	0.0078	0.0065	0.0066	0.0083	0.0080	0.0088
Potassium (total)					mg/L	22.8	26.9	26.2	27.3	28.4	25.6	27.5
Selenium					mg/L	0.00091	0.00100	0.00093	0.00097	0.00107	0.00099	0.00094
Silicon					mg/L	< 0.20	0.23	0.22	0.22	0.14	0.20	0.38
Silver					mg/L	< 0.000040	< 0.000040	< 0.000040	< 0.000020	< 0.000020	< 0.000040	< 0.000020
Sodium (total)					mg/L	283	344	332	352	373	355	359
Strontium					mg/L	2.07	2.43	2.40	2.59	2.64	2.46	2.87
Sulphur					mg/L	85.5	102	100	106	112	104	106
Thallium					mg/L	0.000030	0.000030	< 0.000020	0.000027	0.000040	0.000036	0.000037
Tin					mg/L	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.0050	< 0.010	< 0.0050
Titanium					mg/L	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.0050	< 0.010	< 0.0050
Uranium					mg/L	0.00161	0.00178	0.00139	0.00285	0.00333	0.00287	0.00118
Vanadium					mg/L	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.0050	< 0.010	< 0.0050
Zinc	1	0.5	0.8	0.4	mg/L	< 0.010	< 0.010	< 0.010	< 0.0050	0.0107	< 0.010	0.0089
Zirconium					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00010	< 0.00010	< 0.00020	< 0.00010
Dissolved Metals												
Aluminum			3	2	mg/L	0.101	0.0750	0.0830	0.105	0.126	0.113	0.0484
Antimony					mg/L	< 0.0010	< 0.0010	< 0.0010	0.0011	0.00091	< 0.0010	< 0.0010
Arsenic	0.6	0.3	0.6	0.3	mg/L	0.00267	0.00189	0.00196	0.00277	0.00257	0.00278	0.00152
Barium					mg/L	0.0762	0.0783	0.0773	0.0893	0.0840	0.0844	0.0784

MEL-14 Parameter	MDMER MAX GRAB	MDMER MAX MEAN	MEL-14 MAX GRAB	MEL-14 MAX MEAN	Sample date Unit	9/12/2021	9/19/2021	9/20/2021	9/27/2021	10/3/2021	10/5/2021	10/11/2021
						C1Q8731	C1R4984	C1R4984	C1S5733	C1T1487	C1T4691	C1T8612
Beryllium					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00010	< 0.00020	< 0.00020
Bismuth					mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0020	< 0.0020
Boron					mg/L	0.35	0.41	0.42	0.42	0.414	0.39	0.37
Cadmium					mg/L	0.000026	0.000025	< 0.000020	< 0.000020	0.000027	0.000034	0.000036
Calcium (Dissolved)					mg/L	180	194	184	223	201	209	198
Chromium					mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0020	< 0.0020
Cobalt					mg/L	0.00121	0.00139	0.00132	0.00162	0.00159	0.00161	0.00180
Copper	0.6	0.3	0.4	0.2	mg/L	0.00196	0.00171	0.00158	0.00191	0.00190	0.00163	0.00162
Iron					mg/L	< 0.010	< 0.010	< 0.010	0.012	0.0320	< 0.010	0.015
Lead	0.2	0.1	0.2	0.1	mg/L	0.00049	< 0.00040	< 0.00040	< 0.00040	< 0.00020	< 0.00040	< 0.00040
Lithium					mg/L	0.0414	0.0446	0.0439	0.0480	0.0423	0.0451	0.0420
Magnesium (Dissolved)					mg/L	47.9	53.2	53.9	59.9	60.5	58.9	56.7
Manganese					mg/L	0.0618	0.179	0.154	0.215	0.262	0.287	0.363
Mercury					mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum					mg/L	0.0051	0.0050	0.0051	0.0063	0.0048	0.0049	0.0045
Nickel	1	0.5	1	0.5	mg/L	0.0057	0.0072	0.0060	0.0069	0.0080	0.0081	0.0093
Potassium (Dissolved)					mg/L	24.8	26.1	26.3	29.5	27.6	26.8	25.6
Selenium					mg/L	0.00103	0.00098	0.00091	0.00102	0.00100	0.00099	0.00096
Silicon					mg/L	< 0.20	0.21	< 0.20	0.22	0.15	< 0.20	0.36
Silver					mg/L	< 0.000040	< 0.000040	< 0.000040	< 0.000040	< 0.000020	< 0.000040	< 0.000040
Sodium (Dissolved)					mg/L	300	326	327	365	362	361	354
Strontium					mg/L	2.21	2.36	2.37	2.90	2.46	2.67	2.40
Sulphur					mg/L	92.0	102	99.9	119	110	105	102
Thallium					mg/L	0.000030	0.000030	< 0.000020	0.000029	0.000039	0.000038	0.000038
Tin					mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.010	< 0.010
Titanium					mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.010	< 0.010
Uranium					mg/L	0.00159	0.00161	0.00123	0.00280	0.00307	0.00284	0.00099
Vanadium					mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.010	< 0.010
Zinc	1	0.5	0.8	0.4	mg/L	0.0255	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.010	0.011
Zirconium					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00010	< 0.00020	< 0.00020
Radionuclides												
Radium-226	1.11	0.37			Bq/l	0.0090	0.021	0.018	0.010	0.020	< 0.0050	0.014
Toxicity												
Daphnia 48 h static acute test - LC50					%	>100	-	>100	>100	>100	-	>100
Fathead minnow 7 d growth test - IC25					%	-	-	<1.56 (<1.56, 2.3)	-	-	-	-
Fathead minnow 7 d mortality test - LC50					%	-	-	3.1 (2.5, 3.8)	-	-	-	-
Daphnia 48 h Static Acute Test - EC50					%	>100	-	>100	>100	>100	-	>100
LC50 (96h) - Rainbow Trout					%	>100	-	>100	>100	>100	-	>100
Lemna Minor Biomasse - IC25					%	-	-	>97 (N/A, N/A)	-	-	-	-
Lemna Minor Frond Increase - IC25					%	-	-	44.0 (28.9, 60.9)	-	-	-	-
Hyalella 14d Growth Test - IC25					%	-	-	>100 (N/A, N/A)	-	-	-	-
Hyalella 14d Survival Test - LC50					%	-	-	>100 (N/A, N/A)	-	-	-	-
Daphnia Magna - LC50 Survival - Chronic tox					%	-	-	Invalid	-	-	-	-
Daphnia Magna - IC25 Reproduction - Chronic tox					%	-	-	-	-	-	-	-
Daphnia Magna - IC25 Growth - Chronix tox					%	-	-	-	-	-	-	-
Volatile Organics												
Benzene					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes					mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes					mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene					mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX					mg/L	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)					mg/L	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)					mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)					mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)					mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Footnotes:

All 2021 samples have been included in the Annual average, except samples on June 30, July 5, 11 and September 25. The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-14 Parameter	Sample date		8/10/2021						9/27/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters														
pH	pH units		6.21	-	7.75	7.67	1.04	-	6.61	-	7.75	7.76	0.13	-
Dissolved Oxygen	mg/L		11.3	-	11.0	10.5	4.65	-	9.33	-	9.70	9.54	1.66	-
Turbidity	NTU	0.1	0.1	0.1	0.4	0.4	0.00	0.00	0.1	0.1	0.5	0.4	22.22	0.00
Specific conductivity	umhos/cm	1.0	2.0	1.0	2100	2200	4.65	66.67	1.1	1.0	3300	3300	0.00	9.52
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	496	485	2.24	-	0.5	-	725	733	1.10	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	482	485	0.62	-	0.5	-	748	802	6.97	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	69	68	1.46	0.00	1.3	1.0	83	83	0.00	26.09
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1	-	69	67	2.94	-	1.3	-	83	82	1.21	-
TDS	mg/L	10	10	10	1420	1480	4.14	0.00	10	10	2050	2110	2.88	0.00
TDS, calculated	mg/L	1.0	1	-	1200	1200	0.00	-	1.0	-	1800	1900	5.41	-
TSS	mg/L	1	1	1	2	4	66.67	0.00	1	1	3	3	0.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	7.9	8.1	2.50	0.00	0.4	0.40	10	11	9.52	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	7.3	7.3	0.00	0.00	0.4	0.40	9.5	9.5	0.00	0.00
Major Ions														
Chloride	mg/L	1.0	1	1.0	500	530	5.83	0.00	1	1.0	800	810	1.24	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.0010	0.0036	0.0010	0.0043	0.0031	32.43	113.04	0.0041	0.0010	0.0041	0.0053	25.53	121.57
Cyanide (WAD)	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010	0.0011	0.0012	8.70	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00	0.1	0.10	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.59	0.57	3.45	0.00	0.05	0.050	0.36	0.36	0.00	0.00
Sulfate	mg/L	1.0	1	1.0	180	180	0.00	0.00	1	1.0	270	270	0.00	0.00
Nutrients and Chlorophyll a														
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.52	0.58	10.91	0.00	0.05	0.050	1.3	1.2	8.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	7.44	7.51	0.94	0.00	0.1	0.10	19.6	19.4	1.03	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.214	0.216	0.93	0.00	0.01	0.010	0.303	0.309	1.96	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	7.65	7.73	1.04	-	0.1	-	19.9	19.8	0.50	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	1.1	1.1	0.00	0.00	0.1	0.10	1.5	1.3	14.29	0.00
Biochemical Oxygen Demand, 5 Day	mg/L	2	2	2	2	2	0.00	0.00	2	2	2	2	0.00	0.00
Total phosphorus	mg/L	0.020	0.02	0.020	0.026	0.037	34.92	0.00	0.02	0.020	0.042	0.02	70.97	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.021	70.97	0.00	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals														
Aluminum	mg/L	0.0030	0.003	0.0030	0.393	0.410	4.23	0.00	0.003	0.0030	0.440	0.438	0.46	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.00089	0.00086	3.43	0.00	0.0005	0.00050	0.00098	0.00097	1.03	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00473	0.00483	2.09	0.00	0.0001	0.00010	0.00374	0.00380	1.59	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0644	0.0627	2.68	0.00	0.0010	0.0010	0.0807	0.0808	0.12	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.251	0.253	0.79	0.00	0.05	0.050	0.388	0.380	2.08	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000021	0.000021	0.00	0.00	0.00001	0.000010	0.000021	0.000019	10.00	0.00
Calcium (total)	mg/L	0.050	0.05	-	140	136	2.90	-	0.103	-	196	199	1.52	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00135	0.00133	1.49	0.00	0.0002	0.00020	0.00152	0.00152	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00210	0.00198	5.88	0.00	0.0005	0.00050	0.00193	0.00194	0.52	0.00
Iron	mg/L	0.010	0.01	0.010	0.028	0.021	28.57	0.00	0.01	0.010	0.046	0.038	19.05	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.0002	0.00020	0.0002	0.00024	18.18	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0428	0.0436	1.85	0.00	0.002	0.0020	0.0430	0.0430	0.00	0.00
Magnesium (total)	mg/L	0.050	0.05	-	35.5	35.1	1.13	-	0.05	-	57.0	57.3	0.52	-
Manganese	mg/L	0.0010	0.001	0.0010	0.117	0.117	0.00	0.00	0.001	0.0010	0.198	0.200	1.01	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0053	0.0051	3.85	0.00	0.001	0.0010	0.0057	0.0058	1.74	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0047	0.0047	0.00	0.00	0.001	0.0010	0.0066	0.0066	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	18.7	18.6	0.54	-	0.05	-	27.2	27.3	0.37	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00102	0.00106	3.85	0.00	0.0001	0.00010	0.00092	0.00097	5.29	0.00
Silicon	mg/L	0.10	0.1	0.10	0.29	0.29	3.39	0.00	0.1	0.10	0.23	0.22	4.44	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	235	231	1.72	-	0.05	-	348	352	1.14	-
Strontium	mg/L	0.0010	0.001	0.0010	2.02	2.00	1.00	0.00	0.001	0.0010	2.57	2.59	0.78	0.00
Sulphur	mg/L	3.0	3	3.0	62.7	63.7	1.58	0.00	3	3.0	105	106	0.95	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.000028	0.000025	11.32	0.00	0.00001	0.000010	0.000027	0.000027	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.005	0.005	0.00	0.00

QAQC MEL-14 Parameter	Sample date		8/10/2021						9/27/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00070	0.00069	1.44	0.00	0.0001	0.00010	0.00282	0.00285	1.06	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.0103	0.005	69.28	0.00	0.005	0.0050	0.0055	0.005	9.52	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals														
Aluminum	mg/L	0.0030	0.003	0.0030	0.119	0.111	6.96	0.00	0.003	0.0030	0.106	0.105	0.95	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.00086	0.00084	2.35	0.00	0.0005	0.00050	0.0010	0.0011	9.52	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00352	0.00348	1.14	0.00	0.0001	0.00010	0.00267	0.00277	3.68	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0615	0.0621	0.97	0.00	0.0010	0.0010	0.0852	0.0893	4.70	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010	0.002	0.002	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.247	0.244	1.22	0.00	0.05	0.050	0.40	0.42	4.88	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000018	0.000020	10.53	0.00	0.00001	0.000010	0.00002	0.00002	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	0.059	-	136	137	0.73	-	0.107	-	206	223	7.93	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00132	0.00132	0.00	0.00	0.0002	0.00020	0.00149	0.00162	8.36	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.00187	0.00191	2.12	0.00	0.0002	0.00020	0.00146	0.00191	26.71	0.00
Iron	mg/L	0.0050	0.005	0.0050	0.0068	0.0083	19.87	0.00	0.005	0.0050	0.01	0.012	18.18	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.0002	0.00020	0.0004	0.0004	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0411	0.0405	1.47	0.00	0.002	0.0020	0.0446	0.0480	7.34	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	34.5	34.7	0.58	-	0.05	-	56.8	58.9	5.31	-
Manganese	mg/L	0.0010	0.001	0.0010	0.113	0.113	0.00	0.00	0.001	0.0010	0.203	0.215	5.74	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0050	0.0049	2.02	0.00	0.001	0.0010	0.0061	0.0063	3.23	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0045	0.0047	4.35	0.00	0.001	0.0010	0.0066	0.0069	4.44	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	18.3	18.2	0.55	-	0.05	-	27.7	29.5	6.29	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00100	0.00100	0.00	0.00	0.0001	0.00010	0.00098	0.00102	4.00	0.00
Silicon	mg/L	0.10	0.1	0.10	0.27	0.26	3.77	0.00	0.1	0.10	0.20	0.22	9.52	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00	0.00002	0.000020	0.00004	0.00004	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	224	226	0.89	-	0.05	-	340	365	7.09	-
Strontium	mg/L	0.0010	0.001	0.0010	1.97	1.93	2.05	0.00	0.001	0.0010	2.79	2.90	3.87	0.00
Sulphur	mg/L	3.0	3	3.0	58.9	60.6	2.85	0.00	3	3.0	108	119	9.69	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.000025	0.000025	0.00	0.00	0.00001	0.000010	0.000027	0.000029	7.14	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.01	0.01	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.01	0.01	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00064	0.00063	1.57	0.00	0.0001	0.00010	0.00261	0.00280	7.02	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.01	0.01	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050	0.01	0.01	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010	0.0002	0.0002	0.00	0.00
Radionuclides														
Radium-226	Bq/l	0.0050	0.005	0.0050	0.015	0.0080	60.87	0.00	0.005	0.0050	0.017	0.010	51.85	0.00
Volatile Organics														
Benzene	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Ethylbenzene	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Toluene	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.00021	0.00020	0.0002	0.0002	0.00	4.88
Xylenes	mg/L	0.00040	0.0004	0.00040	0.0004	0.0004	0.00	0.00	0.00078	0.00040	0.0004	0.0004	0.00	64.41
m,p-Xylenes	mg/L	0.00040	0.0004	0.00040	0.0004	0.0004	0.00	0.00	0.00056	0.00040	0.0004	0.0004	0.00	33.33
o-Xylene	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.00023	0.00020	0.0002	0.0002	0.00	13.95
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00	0.025	0.025	0.025	0.025	0.00	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00	0.025	0.025	0.025	0.025	0.00	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.1	0.00	0.00	0.1	0.1	0.1	0.1	0.00	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.26	0.2	26.09	0.00	0.2	0.2	0.2	0.2	0.00	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.2	0.00	0.00	0.2	0.2	0.2	0.2	0.00	0.00
% Exceedance*							0%	0%					0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-15	CCME	Sample date	Annual Average				6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021
Parameter	Guideline	Unit	2018	2019	2020	2021	C1H4534	C1I8715	C1K4904	C1O3784	C1R5000	C1T8358
Field Measured												
Temperature		°C	-	9.22	14.10	7.98	7.1	11.4	10.09	10.3	5.8	3.2
pH		pH units	-	7.57	8.11	7.79	7.17	7.59	7.2	7.83	8.99	7.95
Conductivity		uS/cm	-	104.43	102.73	342.32	105	96.6	1463	115.9	127.4	146
Dissolved oxygen		mg/L	-	10.62	10.72	26.80	9.52	99.2	11.24	11.51	17.44	11.89
Dissolved oxygen		%	-	92.73	102.83	85.56	78.7	10.84	99.8	104.8	130.5	88.7
Turbidity		NTU	-	-	-	1.55	-	-	-	1.7	1.51	1.45
Conventional Parameters												
pH	6-9.5	pH units	7.44	7.62	7.62	7.63	7.60	7.63	7.72	7.68	7.66	7.51
Turbidity		NTU	0.40	0.38	0.43	0.23	0.2	0.3	0.5	0.3	< 0.1	< 0.1
Specific conductivity		umhos/cm	97.50	96.50	106.67	120.00	100	100	150	120	120	130
Hardness, as CaCO3 (T)		mg/L	-	40.23	40.97	43.33	34.1	36.1	50.8	43.1	48.3	47.6
Hardness, as CaCO3 (D)		mg/L	-	39.15	41.57	43.25	34.1	36.5	51.7	42.8	45.5	48.9
Total alkalinity, as CaCO3		mg/L	34.50	33.00	35.00	36.83	29	32	42	38	40	40
Carbonate, as CaCO3		mg/L	1.00	1.00	1.00	0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3		mg/L	34.00	33.00	34.67	36.50	29	32	41	38	40	39
TDS		mg/L	45.00	66.25	75.00	60.00	65	85	65	60	45	40
TDS, calculated		mg/L	-	-	-	65.00	-	-	-	60	70	65
TSS		mg/L	2.00	1.50	1.00	1.58	1	< 1	3	2	2	1
Total organic carbon		mg/L	8.15	4.80	4.70	4.38	3.2	3.5	5.5	4.5	4.6	5.0
Dissolved organic carbon		mg/L	3.95	4.38	4.60	4.35	3.3	3.6	5.2	4.4	4.7	4.9
Major Ions												
Chloride	120	mg/L	7.20	7.25	7.93	10.42	9.7	8.0	15	10	9.8	10
Cyanide		mg/L	0.0050	0.0050	0.0050	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	0.005	mg/L	0.0010	0.0015	0.0017	0.0020	0.0018	0.0021	0.0011	0.0016	< 0.0010	0.0050
Cyanide (WAD)		mg/L	-	0.0010	0.0010	0.0006	< 0.0010	< 0.0010	0.0010	< 0.0010	< 0.0010	< 0.0010
Fluoride	0.12	mg/L	-	-	-	0.05	-	-	-	< 0.10	< 0.10	< 0.10
Silica		mg/L	0.70	0.99	1.12	0.63	0.36	0.31	0.93	0.43	0.67	1.1
Sulfate	128	mg/L	2.45	2.65	5.30	6.23	5.3	4.2	8.4	5.8	6.5	7.2
Nutrients and Chlorophyll a												
Ammonia Nitrogen		mg/L	0.05	0.09	0.20	0.03	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Nitrate	13	mg/L	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	0.06	mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite		mg/L	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Kjeldahl nitrogen		mg/L	0.35	0.29	0.27	0.24	0.11	0.16	0.18	0.20	0.43	0.33
Total phosphorus		mg/L	0.02	0.02	0.02	0.02	< 0.020	< 0.020	< 0.020	< 0.020	0.023	0.047
Orthophosphate (P)		mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	0.011	< 0.010	< 0.010	< 0.010
Total Metals												
Aluminum		mg/L	-	0.00610	0.00467	0.00597	0.0071	0.0046	0.0103	0.0041	0.0054	0.0043
Antimony		mg/L	-	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	-	0.00090	0.00112	0.00143	0.00195	0.00150	0.00184	0.00107	0.00111	0.00109
Barium		mg/L	-	0.01175	0.01237	0.01217	0.0114	0.0108	0.0149	0.0111	0.0120	0.0128
Beryllium		mg/L	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	-	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	-	0.00002	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)		mg/L	-	13.72000	13.80000	14.60000	11.5	12.2	17.2	14.4	16.3	16.0
Chromium		mg/L	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	0.002	mg/L	-	0.00069	0.00083	0.00078	0.00075	0.00058	0.00092	0.00072	0.00084	0.00084
Iron	0.3	mg/L	-	0.08675	0.08367	0.07133	0.076	0.060	0.156	0.039	0.054	0.043
Lead	0.001	mg/L	-	0.00020	0.00020	0.00012	0.00023	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020

MEL-15 Parameter	CCME Guideline	Sample date Unit	Annual Average				6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021
			2018	2019	2020	2021	C1H4534	C1I8715	C1K4904	C1O3784	C1R5000	C1T8358
Vanadium		mg/L	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	-	0.00500	0.00500	0.00348	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0084	< 0.0050
Zirconium		mg/L	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-15 Parameter	Sample date		6/20/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.74	-	7.48	7.60	1.59	-
Turbidity	NTU	0.1	0.1	0.1	0.2	0.2	0.00	0.00
Specific conductivity	umhos/cm	1.0	1.6	1.0	100	100	0.00	46.15
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	34.1	34.1	0.00	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.72	-	34.0	34.1	0.29	-
Total alkalinity, as CaCO3	mg/L	1.0	1.4	1.0	29	29	0.00	33.33
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1.4	-	29	29	0.00	-
TDS	mg/L	10	10	10	80	65	20.69	0.00
TSS	mg/L	1	1	1	2	1	66.67	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	3.3	3.2	3.08	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	3.3	3.3	0.00	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	10	9.7	3.05	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.0010	0.0015	0.0010	0.0015	0.0018	18.18	40.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.36	0.36	0.00	0.00
Sulfate	mg/L	1.0	1	1.0	5.5	5.3	3.70	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.14	0.11	24.00	0.00
Total phosphorus	mg/L	0.020	0.02	0.020	0.02	0.02	0.00	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0081	0.0071	13.16	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00209	0.00195	6.93	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0122	0.0114	6.78	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000012	0.00001	18.18	0.00
Calcium (total)	mg/L	0.050	0.05	-	11.4	11.5	0.87	-

QAQC MEL-15 Parameter	Sample date		6/20/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00071	0.00075	5.48	0.00
Iron	mg/L	0.010	0.01	0.010	0.084	0.076	10.00	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.00026	0.00023	12.24	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.002	0.002	0.00	0.00
Magnesium (total)	mg/L	0.050	0.05	-	1.34	1.31	2.26	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0096	0.0082	15.73	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	0.925	0.877	5.33	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	0.18	0.18	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	4.53	4.39	3.14	-
Strontium	mg/L	0.0010	0.001	0.0010	0.0611	0.0589	3.67	0.00
Sulphur	mg/L	3.0	3	3.0	3	3	0.00	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.0042	0.0030	0.003	0.0033	9.52	33.33
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00162	0.00164	1.23	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0113	0.0114	0.88	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	0.289	-	11.4	11.5	0.87	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.00063	0.00066	4.65	0.00

QAQC MEL-15 Parameter	Sample date		6/20/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Iron	mg/L	0.0050	0.005	0.0050	0.0450	0.0460	2.20	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.002	0.002	0.00	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	1.31	1.31	0.00	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0065	0.0064	1.55	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	0.899	0.891	0.89	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	0.17	0.17	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.219	-	4.44	4.41	0.68	-
Strontium	mg/L	0.0010	0.001	0.0010	0.0585	0.0587	0.34	0.00
Sulphur	mg/L	3.0	3	3.0	3	3	0.00	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-16	CCME	Sample date	Annual Average						6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021
Parameter	Guideline	Unit	2016	2017	2018	2019	2020	2021	C1H4534	C1I8699	C1K4904	C1O3792	C1R5017	C1T8361
Field Measured														
Temperature		°C	8.45	-	16.30	9.68	15.03	7.98	4.2	13.9	10.97	9.98	5.5	3.3
pH		pH units	8.66	-	8.46	7.64	8.13	7.73	7.17	7.64	7.5	7.67	8.62	7.79
Conductivity		uS/cm	69.25	-	84.70	79.25	69.57	117.63	109.1	100.9	109.4	118.6	119.2	148.6
Dissolved oxygen		mg/L	-	-	-	10.06	10.25	26.30	10.93	98.6	10.98	11.56	14.2	11.53
Dissolved oxygen		%	-	-	-	88.88	99.93	82.33	83.7	10.07	99.4	104.5	110	86.3
Turbidity		NTU	-	-	-	-	-	1.72	-	-	-	1.4	1.02	2.73
Conventional Parameters														
pH	6.5 to 9.0	pH units	7.59	7.69	7.32	7.43	7.54	7.64	7.59	7.37	7.54	7.68	7.54	8.10
Turbidity		NTU	0.55	0.80	0.45	0.80	0.50	0.48	0.4	0.7	0.5	0.4	0.4	0.5
Specific conductivity		umhos/cm	74.50	89.00	89.00	82.75	102.00	118.33	110	100	110	130	120	140
Hardness, as CaCO3 (T)		mg/L	29.50	32.33	32.65	29.43	36.23	42.83	40.3	37.9	38.4	43.6	48.6	48.2
Hardness, as CaCO3 (D)		mg/L	30.20	37.30	33.75	31.73	36.83	42.20	38.0	37.3	38.8	44.9	46.9	47.3
Total alkalinity, as CaCO3		mg/L	29.50	32.25	26.00	21.25	24.67	30.67	29	25	28	30	32	40
Carbonate, as CaCO3		mg/L	1.00	1.00	1.00	1.00	1.00	0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3		mg/L	29.50	31.75	26.00	21.00	24.67	30.50	29	25	28	30	32	39
TDS		mg/L	49.00	66.00	45.00	63.75	76.67	75.00	60	135	40	50	85	80
TDS, calculated		mg/L	-	-	-	-	-	64.67	-	-	-	61	63	70
TSS		mg/L	1.00	1.25	1.00	2.25	2.00	2.00	3	2	1	4	1	1
Total organic carbon		mg/L	4.85	4.93	3.95	4.03	4.00	4.23	3.1	3.9	4.1	4.7	5.4	4.2
Dissolved organic carbon		mg/L	4.80	4.60	3.75	3.53	3.83	4.22	3.1	3.7	3.7	5.1	5.5	4.2
Major Ions														
Chloride	120	mg/L	3.80	6.73	9.85	10.38	13.33	15.33	15	13	14	16	16	18
Cyanide		mg/L	0.0050	0.0050	0.0050	0.0050	0.0050	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	0.005	mg/L	0.0010	0.0012	0.0010	0.0010	0.0012	0.0026	0.0018	0.0023	0.0014	0.0031	0.0016	0.0053
Cyanide (WAD)		mg/L	0.0050	0.0050	0.0050	0.0012	0.0010	0.0006	< 0.0010	< 0.0010	< 0.0010	0.0012	< 0.0010	< 0.0010
Fluoride	0.12	mg/L	-	-	-	-	-	0.05	-	-	-	< 0.10	< 0.10	< 0.10
Silica		mg/L	0.34	0.29	0.22	0.18	0.29	0.33	0.12	0.21	0.12	0.44	0.70	0.41
Sulfate	128	mg/L	1.05	1.28	1.25	1.45	2.37	4.03	2.8	2.7	3.0	4.8	5.3	5.6
Nutrients and Chlorophyll a														
Ammonia Nitrogen		mg/L	0.01	0.01	0.01	0.12	0.09	0.03	< 0.050	< 0.050	< 0.050	0.070	< 0.050	< 0.050
Nitrate	13	mg/L	0.10	0.10	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	0.06	mg/L	0.10	0.10	0.10	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite		mg/L	0.01	0.01	0.01	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Kjeldahl nitrogen		mg/L	0.30	0.26	0.21	0.20	0.21	0.24	0.14	0.19	0.15	0.33	0.33	0.27
Total phosphorus		mg/L	0.01	0.01	0.02	0.02	0.02	0.02	< 0.020	0.038	< 0.020	0.023	< 0.020	< 0.020
Orthophosphate (P)		mg/L	0.01	0.01	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	-	< 0.010	< 0.010
Total Metals														
Aluminum		mg/L	0.00795	0.01200	0.00665	0.01243	0.01203	0.02493	0.0137	0.0295	0.0127	0.0398	0.0446	0.0093
Antimony		mg/L	0.00050	0.00050	0.00050	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	0.00104	0.00105	0.00058	0.00121	0.00294	0.00545	0.00884	0.00791	0.00433	0.00567	0.00304	0.00293
Barium		mg/L	0.01405	0.01660	0.08850	0.01598	0.01947	0.02120	0.0232	0.0194	0.0192	0.0209	0.0216	0.0229
Beryllium		mg/L	0.00010	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	-	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	0.05000	0.05000	0.05000	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)		mg/L	9.95000	12.22750	11.25000	9.67500	11.76667	13.95000	13.1	12.4	12.5	14.2	15.7	15.8
Chromium		mg/L	0.00100	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	-	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	0.002	mg/L	0.00097	0.00101	0.00076	0.00078	0.00099	0.00134	0.00087	0.00123	0.00102	0.00182	0.00193	0.00116
Iron	0.3	mg/L	0.10600	0.15450	0.08950	0.12375	0.14567	0.11967	0.131	0.156	0.101	0.200	0.068	0.062
Lead	0.001	mg/L	0.00020	0.00020	0.00020	0.00020	0.00026	0.00038	0.00071	0.00072	0.00027	0.00038	< 0.00020	< 0.00020
Lithium		mg/L	0.00500	0.00500	0.00500	0.00200	0.00200	0.00100	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)		mg/L	1.12000	1.38000	1.36000	1.26750	1.63333	1.94333	1.85	1.70	1.72	1.99	2.26	2.14
Manganese		mg/L	0.00650	0.01143	0.00830	0.01130	0.00913	0.00797	0.0135	0.0059	0.0074	0.0113	0.0048	0.0049
Mercury	0.000026	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00100	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025	mg/L	0.00300	0.00110	0.00100	0.00100	0.00100	0.00060	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0011	< 0.0010

MEL-16	CCME	Sample date	Annual Average						6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021
Parameter	Guideline	Unit	2016	2017	2018	2019	2020	2021	C1H4534	C1I8699	C1K4904	C1O3792	C1R5017	C1T8361
Potassium (total)		mg/L	1.03000	1.09200	0.96350	0.83075	0.98267	1.12550	1.06	0.993	1.05	1.19	1.20	1.26
Selenium	0.001	mg/L	0.00010	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon		mg/L	-	-	0.15000	0.13900	0.14733	0.20667	< 0.10	0.15	0.13	0.25	0.43	0.23
Silver	0.0025	mg/L	0.00002	0.00002	0.00002	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)		mg/L	2.07000	2.36750	2.34000	2.14750	2.88333	3.72667	3.42	3.34	3.19	4.07	4.21	4.13
Strontium		mg/L	0.04950	0.05998	0.06100	0.05133	0.06343	0.07083	0.0685	0.0587	0.0654	0.0751	0.0742	0.0831
Sulphur		mg/L	-	-	-	3.00000	3.00000	1.50000	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	0.0008	mg/L	0.00005	0.00005	0.00005	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin		mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium		mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	mg/L	0.00010	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium		mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00323	< 0.0050	< 0.0050	0.0069	< 0.0050	< 0.0050	< 0.0050
Zirconium		mg/L	-	-	0.00010	0.00016	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals														
Aluminum		mg/L	0.00720	0.00493	0.00565	0.00635	0.00523	0.01420	0.0041	0.0157	0.0078	0.0118	0.0420	0.0038
Antimony		mg/L	0.00050	0.00050	0.00050	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	0.00091	0.00084	0.00099	0.00092	0.00232	0.00389	0.00577	0.00490	0.00374	0.00337	0.00302	0.00254
Barium		mg/L	0.01315	0.01603	0.01600	0.01855	0.01937	0.02078	0.0213	0.0190	0.0192	0.0201	0.0225	0.0226
Beryllium		mg/L	0.00010	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	-	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	0.05000	0.05000	0.05000	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	0.00001	0.00001	0.00001	0.00005	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (Dissolved)		mg/L	-	-	-	-	-	13.80000	12.3	12.1	12.7	14.8	15.4	15.5
Chromium		mg/L	0.00100	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	-	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	0.002	mg/L	0.00097	0.00081	0.00069	0.00096	0.00088	0.00122	0.00076	0.00122	0.00098	0.00129	0.00194	0.00110
Iron	0.3	mg/L	0.02400	0.05863	0.17480	0.05480	0.06183	0.04648	0.0494	0.0555	0.0512	0.0411	0.0584	0.0233
Lead	0.001	mg/L	0.00020	0.00020	0.00020	0.00020	0.00020	0.00015	0.00023	0.00025	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium		mg/L	0.00500	0.00500	0.01680	0.00200	0.00200	0.00100	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (Dissolved)		mg/L	-	-	-	-	-	1.88167	1.77	1.69	1.73	1.94	2.06	2.10
Manganese		mg/L	0.00100	0.00233	0.01170	0.00220	0.00220	0.00370	0.0123	0.0028	0.0023	0.0019	0.0015	0.0014
Mercury	0.000026	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00100	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025	mg/L	0.00100	0.00100	0.00140	0.00100	0.00100	0.00060	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0011	< 0.0010
Potassium (Dissolved)		mg/L	-	-	-	-	-	1.11333	1.03	1.01	1.07	1.15	1.26	1.16
Selenium	0.001	mg/L	0.00010	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon		mg/L	-	-	0.60000	0.13933	0.14167	0.19000	< 0.10	0.12	0.12	0.21	0.43	0.21
Silver	0.0025	mg/L	0.00002	0.00002	0.00002	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)		mg/L	-	-	-	-	-	3.58000	3.25	3.21	3.26	3.68	3.98	4.10
Strontium		mg/L	0.05190	0.05825	0.37050	0.05160	0.06430	0.07045	0.0638	0.0632	0.0671	0.0734	0.0766	0.0786
Sulphur		mg/L	-	-	-	3.00000	3.00000	1.50000	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	0.0008	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.000010	0.000013	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin		mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium		mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	mg/L	0.00010	0.00010	0.00013	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium		mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	0.00500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium		mg/L	-	-	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-16 Parameter	Sample date		8/21/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.09	-	7.57	7.68	1.44	-
Turbidity	NTU	0.1	0.1	0.1	0.6	0.4	40.00	0.00
Specific conductivity	umhos/cm	1.0	1.5	1.0	120	130	8.00	40.00
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	42.7	43.6	2.09	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	45.2	44.9	0.67	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	29	30	3.39	0.00
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1	-	29	30	3.39	-
TDS	mg/L	10	10	10	70	50	33.33	0.00
TDS, calculated	mg/L	1.0	1	-	60	61	1.65	-
TSS	mg/L	1	1	1	3	4	28.57	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	4.7	4.7	0.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	4.4	5.1	14.74	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	16	16	0.00	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.0010	0.0022	0.0010	0.0027	0.0031	13.79	75.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.0010	0.0010	0.0012	18.18	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.44	0.44	0.00	0.00
Sulfate	mg/L	1.0	1	1.0	5.2	4.8	8.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	-	0.05	0.070	33.33	-
Nitrate	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.32	0.33	3.08	0.00
Total phosphorus	mg/L	0.020	0.02	0.020	0.028	0.023	19.61	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0205	0.0398	64.01	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00452	0.00567	22.57	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0200	0.0209	4.40	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00

QAQC MEL-16 Parameter	Sample date		8/21/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Calcium (total)	mg/L	0.050	0.05	-	13.9	14.2	2.14	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00158	0.00182	14.12	0.00
Iron	mg/L	0.010	0.01	0.010	0.091	0.200	74.91	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.00025	0.00038	41.27	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.002	0.002	0.00	0.00
Magnesium (total)	mg/L	0.050	0.05	-	1.91	1.99	4.10	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0052	0.0113	73.94	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	1.17	1.19	1.69	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	0.23	0.25	8.33	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	3.65	4.07	10.88	-
Strontium	mg/L	0.0010	0.001	0.0010	0.0729	0.0751	2.97	0.00
Sulphur	mg/L	3.0	3	3.0	3	3	0.00	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0113	0.0118	4.33	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00340	0.00337	0.89	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0204	0.0201	1.48	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	0.05	-	14.9	14.8	0.67	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00

QAQC MEL-16 Parameter	Sample date		8/21/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Copper	mg/L	0.00020	0.0002	0.00020	0.00134	0.00129	3.80	0.00
Iron	mg/L	0.0050	0.005	0.0050	0.0410	0.0411	0.24	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.002	0.002	0.00	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	1.93	1.94	0.52	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0018	0.0019	5.41	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	1.15	1.15	0.00	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	0.21	0.21	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	3.70	3.68	0.54	-
Strontium	mg/L	0.0010	0.001	0.0010	0.0733	0.0734	0.14	0.00
Sulphur	mg/L	3.0	3	3.0	3	3	0.00	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
% Exceedance*							1%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-17 Parameter	CCME Guideline	Sample date Unit	Annual Average							6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021
			2015	2016	2017	2018	2019	2020	2021	C1H4534	C1I8709	C1K4937	C1O3945	C1R5180	C1T8517
Field Measured															
Temperature		°C	11.00	10.27	12.20	16.20	12.28	14.67	8.98	7	13.4	12.5	10.04	7.8	3.16
pH		pH units	8.21	9.30	8.44	8.57	8.00	7.91	7.89	7.63	7.45	8.33	7.36	8.61	7.95
Conductivity		uS/cm	0.34	2.61	0.74	0.47	256.35	293.87	249.70	153.2	238	240.8	269.6	301.3	295.3
Dissolved oxygen		mg/L	-	-	-	-	10.13	39.80	27.17	10.28	102.4	11.03	14.41	14.57	13.34
Dissolved oxygen		%	-	-	-	-	94.18	99.73	85.61	84.7	10.42	103.6	103.04	110.3	101.6
Turbidity		NTU	-	-	-	-	-	-	1.83	-	-	-	1.71	1.32	2.45
Conventional Parameters															
pH	6.5 to 9.0	pH units	7.69	7.48	7.73	7.50	7.77	7.90	7.78	7.66	7.73	7.86	7.83	7.87	7.74
Turbidity		NTU	1.48	3.92	0.58	0.53	0.65	0.93	0.63	0.7	0.5	0.5	0.5	0.7	0.9
Specific conductivity		umhos/cm	313.00	2151.00	657.50	302.33	257.50	316.67	236.67	160	220	240	260	270	270
Hardness, as CaCO3 (T)		mg/L	133.60	804.00	148.13	78.10	93.35	112.70	86.43	54.0	81.1	86.2	93.3	103	101
Hardness, as CaCO3 (D)		mg/L	-	2130.00	154.67	77.80	86.50	115.20	88.25	52.6	88.1	84.8	98.8	106	99.2
Total alkalinity, as CaCO3		mg/L	44.40	44.00	44.25	41.00	43.00	59.33	50.00	34	47	54	53	59	53
Carbonate, as CaCO3		mg/L	0.60	1.67	1.00	1.00	1.00	1.00	0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3		mg/L	54.18	44.00	44.00	41.00	42.50	59.00	49.67	34	47	54	53	58	52
TDS		mg/L	187.00	2241.00	590.50	156.67	231.25	221.67	205.83	110	200	410	170	175	170
TDS, calculated		mg/L	-	-	-	-	-	-	140.00	-	-	-	140	140	140
TSS		mg/L	5.25	2.33	3.75	1.67	1.50	4.00	4.83	4	2	2	17	2	2
Total organic carbon		mg/L	-	11.20	9.95	7.50	8.50	9.90	8.30	5.6	7.6	9.0	9.8	9.5	8.3
Dissolved organic carbon		mg/L	-	8.90	9.57	7.03	8.25	9.70	8.42	5.9	7.3	8.7	11	9.5	8.1
Major Ions															
Chloride	120	mg/L	-	1700.00	152.50	57.03	43.75	44.67	30.00	20	29	30	33	34	34
Cyanide		mg/L	-	0.0050	0.0050	0.0050	0.0050	0.0050	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	0.005	mg/L	-	0.0050	0.0013	0.0010	0.0034	0.0013	0.0025	0.0018	0.0018	0.0018	0.0036	0.0016	0.0046
Cyanide (WAD)		mg/L	-	-	-	-	0.0010	0.0010	0.0007	< 0.0010	< 0.0010	< 0.0010	0.0014	0.0010	< 0.0010
Fluoride	0.12	mg/L	-	-	-	-	-	-	0.0500	-	-	-	< 0.10	< 0.10	< 0.10
Silica		mg/L	-	5.47	1.56	1.20	1.36	2.20	1.74	0.72	0.62	0.90	2.0	2.6	3.6
Sulfate	128	mg/L	-	77.00	15.50	7.57	7.48	16.17	17.75	9.5	13	12	24	22	26
Nutrients and Chlorophyll a															
Ammonia Nitrogen		mg/L	-	8.76	0.08	0.05	0.05	0.30	0.03	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Unionized Ammonia, calculated internally		mg/L	-	-	-	-	-	-	0.002	-	-	-	-	0.002	-
Nitrate	13	mg/L	0.64	8.22	0.15	0.14	0.10	0.13	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	0.06	mg/L	0.01	0.14	0.01	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite		mg/L	0.66	8.37	0.16	0.14	0.10	0.13	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Kjeldahl nitrogen		mg/L	0.54	9.75	0.51	0.42	0.41	0.60	0.39	0.25	0.32	0.27	0.54	0.53	0.44
Total phosphorus		mg/L	0.05	0.01	0.01	0.02	0.02	0.02	0.01	< 0.020	< 0.020	< 0.020	< 0.020	0.024	< 0.020
Orthophosphate (P)		mg/L	-	0.17	0.01	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
General Organics															
Total oil and grease		mg/L	-	-	-	-	1.18	0.53	0.34	-	0.60	-	< 0.50	< 0.50	< 0.50
Total Metals															
Aluminum		mg/L	0.01045	0.00587	0.00510	0.00590	0.00708	0.01017	0.01065	0.0072	0.0047	0.0046	0.0295	0.0090	0.0089
Antimony		mg/L	0.00020	0.00010	0.00050	0.00050	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	0.00077	0.00070	0.00073	0.00048	0.00064	0.00108	0.00109	0.00089	0.00080	0.00088	0.00204	0.00100	0.00091
Barium		mg/L	0.03840	0.25100	0.05645	0.02650	0.02873	0.03383	0.02935	0.0207	0.0275	0.0267	0.0419	0.0291	0.0302
Beryllium		mg/L	0.00020	0.00037	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	-	-	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	0.01000	0.04200	0.05000	0.05000	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	0.00001	0.00003	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	0.000012	< 0.000010	< 0.000010
Calcium (total)		mg/L	46.76667	285.66667	75.90000	25.70000	31.07500	37.76667	28.88333	17.9	27.4	29.0	31.0	34.6	33.4
Chromium		mg/L	0.00011	0.00077	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	-	-	-	0.00020	0.00020	0.00030	< 0.00020	< 0.00020	< 0.00020	0.00128	< 0.00020	< 0.00020
Copper	0.002	mg/L	0.00098	0.00097	0.00096	0.00071	0.00099	0.00120	0.00134	0.00106	0.00098	0.00104	0.00226	0.00137	0.00134
Iron	0.3	mg/L	0.29750	0.70000	0.17350	0.15100	0.25625	0.31500	0.49800	0.247	0.257	0.249	1.59	0.292	0.353
Lead	0.001	mg/L	0.00009	0.00027	0.00020	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium		mg/L	0.01333	0.27267	0.04680	0.01240	0.00910	0.00783	0.00438	0.0033	0.0047	0.0047	0.0046	0.0044	0.0046
Magnesium (total)		mg/L	14.58500	22.17000	8.74750	3.42000	3.84500	4.48333	3.49167	2.23	3.11	3.36	3.88	4.12	4.25
Manganese		mg/L	0.06418	0.13217	0.02493	0.05110	0.04853	0.05880	0.12482	0.0440	0.0760	0.0405	0.494	0.0547	0.0397
Mercury	0.000026	mg/L	0.00002	0.00007	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00022	0.00067	0.00100	0.00100	0.00100	0.00100	0.00100	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025	mg/L	0.00158	0.00417	0.00140	0.00130	0.00150	0.00203	0.00202	0.0013	0.0015	0.0016	0.0038	0.0019	0.0020
Potassium (total)		mg/L	2.72500	12.94000	4.58250	2.01000	2.10250	2.63000	1.88833	1.52	1.84	1.97	1.90	2.09	2.01

MEL-17 Parameter	CCME Guideline	Sample date Unit	Annual Average							6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021	
			2015	2016	2017	2018	2019	2020	2021	C1H4534	C1I8709	C1K4937	C1O3945	C1R5180	C1T8517	
Selenium	0.001	mg/L	0.00010	0.00170	0.00010	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon		mg/L	-	-	-	-	0.76375	0.97600	0.79500	0.35	0.29	0.43	0.93	1.13	1.64	
Silver	0.0025	mg/L	0.00001	0.00006	0.00002	0.00002	0.00002	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)		mg/L	5.65750	63.34667	25.32500	10.50000	10.07750	11.37667	8.87333	5.72	8.70	7.82	10.5	10.1	10.4	
Strontium		mg/L	0.33450	4.33233	0.89825	0.29300	0.27900	0.31967	0.20933	0.142	0.195	0.229	0.228	0.237	0.225	
Sulphur		mg/L	-	-	-	-	3.46500	6.96667	5.13333	< 3.0	4.2	4.0	6.4	6.3	8.4	
Thallium	0.0008	mg/L	0.00010	0.00030	0.00008	0.00001	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin		mg/L	0.00020	0.00233	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium		mg/L	0.00050	0.02500	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	mg/L	0.00011	0.00077	0.00013	0.00010	0.00011	0.00010	0.00008	< 0.00010	< 0.00010	< 0.00010	0.00011	0.00011	0.00010	
Vanadium		mg/L	0.00020	0.00327	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	0.00165	0.00233	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium		mg/L	-	-	-	-	0.00010	0.00010	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00010	
Dissolved Metals																
Aluminum		mg/L	-	0.00595	0.00443	0.00420	0.00373	0.00337	0.01050	0.0057	0.0271	0.0045	0.0095	0.0112	0.0050	
Antimony		mg/L	-	0.00030	0.00050	0.00050	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	-	0.00058	0.00070	0.00046	0.00063	0.00098	0.00092	0.00081	0.00094	0.00091	0.00095	0.00103	0.00087	
Barium		mg/L	-	0.35855	0.05430	0.02650	0.03017	0.03377	0.02692	0.0203	0.0274	0.0261	0.0278	0.0308	0.0291	
Beryllium		mg/L	-	0.00030	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	0.08900	0.05000	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	-	-	-	0.05000	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	-	0.00003	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (Dissolved)		mg/L	39.37	744.00	70.90	25.40	28.94	38.77	29.63	17.5	30.3	28.4	33.2	35.5	32.9	
Chromium		mg/L	-	0.00080	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	-	-	-	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	0.002	mg/L	-	0.00081	0.00084	0.00070	0.00099	0.00113	0.00130	0.00105	0.00145	0.00097	0.00175	0.00137	0.00120	
Iron	0.3	mg/L	-	0.23400	0.09615	0.11400	0.15267	0.16933	0.19500	0.161	0.190	0.153	0.197	0.220	0.249	
Lead	0.001	mg/L	-	0.00025	0.00020	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium		mg/L	-	0.41700	0.04585	0.01310	0.00947	0.00757	0.00460	0.0032	0.0049	0.0051	0.0051	0.0048	0.0045	
Magnesium (Dissolved)		mg/L	3.61	65.70	8.49	3.48	3.46	4.44	3.43	2.13	3.03	3.39	3.86	4.07	4.12	
Manganese		mg/L	-	0.16725	0.01860	0.04460	0.03700	0.03573	0.04425	0.0324	0.0645	0.0230	0.0540	0.0551	0.0365	
Mercury	0.000026	mg/L	-	0.00006	0.00001	0.00001	0.00001	0.00001	0.00057	< 0.00001	< 0.00001	< 0.00001	0.0034	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	-	0.00075	0.00100	0.00100	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025	mg/L	-	0.00470	0.00130	0.00130	0.00167	0.00197	0.00173	0.0014	0.0016	0.0015	0.0020	0.0020	0.0019	
Potassium (Dissolved)		mg/L	2.08	38.00	4.52	1.93	1.85	2.67	1.87	1.47	1.80	2.01	1.90	2.14	1.89	
Selenium	0.001	mg/L	-	0.00055	0.00010	0.00010	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon		mg/L	-	-	-	-	0.87967	0.97867	0.78667	0.33	0.32	0.43	0.91	1.16	1.57	
Silver	0.0025	mg/L	-	0.00002	0.00002	0.00002	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)		mg/L	5.38	192.00	24.80	10.80	8.68	11.30	8.75	5.49	7.67	8.08	10.7	10.7	9.84	
Strontium		mg/L	-	5.80750	0.89425	0.27900	0.30967	0.32400	0.20933	0.139	0.207	0.215	0.233	0.238	0.224	
Sulphur		mg/L	-	-	-	-	3.35000	6.73333	5.05000	< 3.0	3.8	3.0	7.2	7.0	7.8	
Thallium	0.0008	mg/L	-	0.00045	0.00006	0.00001	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin		mg/L	-	0.00300	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium		mg/L	-	0.01250	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	mg/L	-	0.00064	0.00012	0.00010	0.00010	0.00010	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00012	< 0.00010	< 0.00010
Vanadium		mg/L	-	0.00285	0.00500	0.00500	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	-	0.00300	0.00500	0.00500	0.00500	0.00500	0.00367	< 0.0050	0.0095	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium		mg/L	-	-	-	-	0.00010	0.00010	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00010	
Volatile Organics																
Benzene	0.37	mg/L	-	-	-	-	0.00020	0.00020	0.00010	-	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	0.09	mg/L	-	-	-	-	0.00020	0.00020	0.00010	-	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	0.002	mg/L	-	-	-	-	0.00100	0.00020	0.00010	-	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes		mg/L	-	-	-	-	0.00040	0.00040	0.00020	-	< 0.00040	-	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes		mg/L	-	-	-	-	0.00040	0.00040	0.00020	-	< 0.00040	-	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene		mg/L	-	-	-	-	0.00020	0.00020	0.00010	-	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX		mg/L	-	-	-	-	0.02500	0.02500	0.01250	-	< 0.025	-	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)		mg/L	-	-	-	-	0.02500	0.02500	0.01250	-	< 0.025	-	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)		mg/L	-	-	-	-	-	-	0.05	-	-	-	< 0.1	-	-	-
F3 (C16-C34)		mg/L	-	-	-	-	-	-	0.10	-	-	-	< 0.2	-	-	-
F4 (C34-C50)		mg/L	-	-	-	-	-	-	0.10	-	-	-	< 0.2	-	-	-

Footnotes:

MEL-17 Parameter	CCME Guideline	Sample date Unit	Annual Average							6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021
			2015	2016	2017	2018	2019	2020	2021	C1H4534	C1I8709	C1K4937	C1O3945	C1R5180	C1T8517

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-17 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.25	-	7.87	7.87	0.00	-
Turbidity	NTU	0.1	0.1	0.1	0.7	0.7	0.00	0.00
Specific conductivity	umhos/cm	1.0	1.4	1.0	270	270	0.00	33.33
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	108	103	4.74	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	105	106	0.95	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	59	59	0.00	0.00
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	1	-	59	58	1.71	-
TDS	mg/L	10	10	10	170	175	2.90	0.00
TDS, calculated	mg/L	1.0	1	-	140	140	0.00	-
TSS	mg/L	1	1	1	1	2	66.67	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	9.3	9.5	2.13	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	9.2	9.5	3.21	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	35	34	2.90	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.0010	0.0023	0.0010	0.0014	0.0016	13.33	78.79
Cyanide (WAD)	mg/L	0.0010	0.001	0.0010	0.001	0.0010	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	2.6	2.6	0.00	0.00
Sulfate	mg/L	1.0	1	1.0	21	22	4.65	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.37	0.53	35.56	0.00
Total phosphorus	mg/L	0.020	0.02	0.020	0.028	0.024	15.38	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
General Organics								
Total oil and grease	mg/L	0.50	0.5	0.50	0.5	0.5	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0100	0.0090	10.53	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00100	0.00100	0.00	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0337	0.0291	14.65	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00

QAQC MEL-17 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Calcium (total)	mg/L	0.050	0.05	-	36.0	34.6	3.97	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00132	0.00137	3.72	0.00
Iron	mg/L	0.010	0.01	0.010	0.347	0.292	17.21	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0045	0.0044	2.25	0.00
Magnesium (total)	mg/L	0.050	0.05	-	4.28	4.12	3.81	-
Manganese	mg/L	0.0010	0.001	0.0010	0.100	0.0547	58.56	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0020	0.0019	5.13	0.00
Potassium (total)	mg/L	0.050	0.05	-	2.20	2.09	5.13	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	1.21	1.13	6.84	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	10.8	10.1	6.70	-
Strontium	mg/L	0.0010	0.001	0.0010	0.250	0.237	5.34	0.00
Sulphur	mg/L	3.0	3	3.0	6.7	6.3	6.15	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00011	0.00011	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0093	0.0112	18.54	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00097	0.00103	6.00	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0304	0.0308	1.31	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00

QAQC MEL-17 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Calcium (Dissolved)	mg/L	0.050	0.05	-	35.2	35.5	0.85	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.00135	0.00137	1.47	0.00
Iron	mg/L	0.0050	0.005	0.0050	0.226	0.220	2.69	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0049	0.0048	2.06	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	4.04	4.07	0.74	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0544	0.0551	1.28	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0020	0.0020	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	2.16	2.14	0.93	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	1.15	1.16	0.87	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	10.0	10.7	6.76	-
Strontium	mg/L	0.0010	0.001	0.0010	0.237	0.238	0.42	0.00
Sulphur	mg/L	3.0	3	3.0	6.9	7.0	1.44	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00011	0.00012	8.70	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Volatile Organics								
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Toluene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.0004	0.00	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.0004	0.00	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.00	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.025	0.00	0.00
% Exceedance*							1%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

QAQC MEL-17 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-18 Parameter	CCME Guideline	Unit	Annual Average					6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021	
			2016	2017	2018	2019	2020	2021	C1H4534	C1I8723	C1K4937	C1O3964	C1R4995	C1T8509
Field Measured														
Temperature		°C	7.95	-	17.10	9.22	14.40	8.15	4.6	12.6	10.9	10.32	5.9	4.55
pH		pH units	8.58	-	8.45	7.78	7.84	7.81	7.39	7.71	7.5	7.89	8.84	7.55
Conductivity		uS/cm	145.85	-	105.40	127.83	142.20	416.50	128.7	120.4	147.4	154	1750	198.5
Dissolved oxygen		mg/L	-	-	-	10.73	40.17	29.86	10.84	118.3	11.05	11.7	14.99	12.27
Dissolved oxygen		%	-	-	-	92.73	75.18	85.44	84.1	9.23	100	106.5	115.6	97.2
Turbidity		NTU	-	-	-	-	-	2.14	-	-	-	1.54	2.13	2.76
Conventional Parameters														
pH	6.5 to 9.0	pH units	7.66	7.70	7.35	7.61	7.54	7.60	7.63	7.41	7.51	7.69	7.71	7.66
Turbidity		NTU	1.05	0.40	0.55	0.50	0.53	0.39	0.5	0.4	0.3	0.3	< 0.1	0.8
Specific conductivity		umhos/cm	155.00	143.33	125.00	123.75	156.67	156.67	130	130	150	160	180	190
Hardness, as CaCO3 (T)		mg/L	59.05	53.97	-	45.78	57.17	64.87	45.7	43.9	55.3	99.6	71.8	72.9
Hardness, as CaCO3 (D)		mg/L	62.00	55.70	-	45.90	58.03	56.73	45.0	44.0	51.9	59.1	70.4	70.0
Total alkalinity, as CaCO3		mg/L	37.50	35.00	28.50	28.75	30.67	34.67	30	26	34	37	39	42
Carbonate, as CaCO3		mg/L	19.20	17.97	-	15.27	1.00	0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3		mg/L	37.50	34.67	28.50	28.50	30.67	34.50	30	26	34	37	39	41
TDS		mg/L	153.00	114.67	60.00	93.75	110.00	122.50	100	140	160	120	95	120
TDS, calculated		mg/L	-	-	-	-	-	88.67	-	-	-	80	91	95
TSS		mg/L	1.50	4.33	2.00	1.25	3.33	2.08	< 1	3	2	2	2	3
Total organic carbon		mg/L	4.10	4.27	3.80	4.13	3.97	4.05	3.0	3.0	4.1	4.1	5.1	5.0
Dissolved organic carbon		mg/L	4.10	3.97	3.55	3.85	3.70	4.03	3.3	2.9	3.6	4.7	4.8	4.9
Major Ions														
Chloride	120	mg/L	21.50	19.33	17.00	17.00	23.33	21.17	18	18	20	22	24	25
Cyanide		mg/L	0.0050	0.0050	0.0050	0.0050	0.0050	0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	0.005	mg/L	-	-	-	0.0010	0.0011	0.0017	0.0018	0.0018	0.0016	0.0018	< 0.0010	0.0025
Cyanide (WAD)		mg/L	0.0010	0.0010	0.0010	0.0010	0.0010	0.0008	< 0.0010	< 0.0010	< 0.0010	0.0013	0.0011	0.0010
Fluoride	0.12	mg/L	-	-	-	-	-	0.05	-	-	-	< 0.10	< 0.10	< 0.10
Silica		mg/L	0.82	0.55	0.21	0.70	0.74	0.45	0.34	0.065	0.31	0.37	0.66	0.94
Sulfate	128	mg/L	3.50	4.10	3.95	4.30	5.80	7.48	4.8	4.9	6.1	7.5	9.6	12
Nutrients and Chlorophyll a														
Ammonia Nitrogen		mg/L	0.05	0.01	0.05	0.08	0.06	0.03	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Nitrate	13	mg/L	0.01	0.01	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	0.06	mg/L	0.10	0.10	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite		mg/L	0.01	0.01	0.10	0.10	0.10	0.05	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Kjeldahl nitrogen		mg/L	0.31	0.23	0.22	0.32	0.25	0.21	0.12	0.11	0.14	0.31	0.36	0.23
Total phosphorus		mg/L	0.01	0.01	0.02	0.02	0.02	0.01	< 0.020	< 0.020	< 0.020	0.024	0.025	< 0.020
Orthophosphate (P)		mg/L	0.01	0.01	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals														
Aluminum		mg/L	0.00605	0.00457	-	0.00858	0.01003	0.01070	0.0138	0.0076	0.0105	0.0138	0.0115	0.0070
Antimony		mg/L	0.00050	0.00050	-	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	0.00165	0.00145	-	0.00170	0.00274	0.00209	0.00308	0.00189	0.00244	0.00102	0.00220	0.00193
Barium		mg/L	0.01615	0.01490	-	0.01475	0.02020	0.01895	0.0166	0.0141	0.0171	0.0282	0.0184	0.0193
Beryllium		mg/L	0.00010	0.00010	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	-	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	0.05000	0.05000	-	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	0.00001	0.00001	-	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)		mg/L	20.40000	18.23333	-	15.17500	18.90000	21.48	15.1	14.5	18.2	33.1	23.9	24.1
Chromium		mg/L	0.00100	0.00100	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	-	-	0.00020	0.00042	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	0.002	mg/L	0.00061	0.00060	-	0.00067	0.00084	0.00098	0.00064	0.00052	0.00076	0.00182	0.00108	0.00103
Iron	0.3	mg/L	0.07400	0.08000	-	0.14525	0.24600	0.12883	0.155	0.085	0.152	0.198	0.103	0.080
Lead	0.001	mg/L	0.00020	0.00020	-	0.00020	0.00020	0.00014	0.00036	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium		mg/L	0.00520	0.00337	-	0.00553	0.01440	0.00862	0.0080	0.0075	0.0085	0.0057	0.0107	0.0113
Magnesium (total)		mg/L	3.00000	2.31000	-	1.92000	2.42667	2.73	1.94	1.85	2.38	4.15	2.95	3.11
Manganese		mg/L	0.00950	0.01273	-	0.01738	0.06147	0.01595	0.0275	0.0075	0.0162	0.0258	0.0124	0.0063
Mercury	0.000026	mg/L	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00100	0.00100	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025	mg/L	0.00100	0.00100	-	0.00103	0.00110	0.00075	< 0.0010	< 0.0010	< 0.0010	0.0020	< 0.0010	< 0.0010

MEL-18 Parameter	CCME Guideline	Unit	Annual Average					6/20/2021	7/3/2021	7/17/2021	8/21/2021	9/18/2021	10/9/2021	
			2016	2017	2018	2019	2020	2021	C1H4534	C1I8723	C1K4937	C1O3964	C1R4995	C1T8509
Potassium (total)		mg/L	1.29000	1.08800	-	1.00925	1.14900	1.34	1.05	0.937	1.19	2.02	1.42	1.41
Selenium	0.001	mg/L	0.00010	0.00010	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon		mg/L	-	-	-	0.28150	0.36467	0.38667	0.20	< 0.10	0.19	1.03	0.38	0.47
Silver	0.0025	mg/L	0.00002	0.00002	-	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)		mg/L	5.54000	4.44667	-	3.68000	4.28667	5.94	4.05	3.93	4.85	11.2	5.85	5.74
Strontium		mg/L	0.13200	0.10300	-	0.10288	0.14933	0.17083	0.133	0.111	0.155	0.246	0.183	0.197
Sulphur		mg/L	-	-	-	3.00000	3.00000	3.03	< 3.0	< 3.0	< 3.0	7.1	3.2	3.4
Thallium	0.0008	mg/L	0.00005	0.00004	-	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin		mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium		mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	mg/L	0.00010	0.00010	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium		mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium		mg/L	-	-	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals														
Aluminum		mg/L	0.00455	0.00357	-	0.00320	0.00597	0.00597	0.0166	< 0.0030	0.0042	0.0044	0.0076	< 0.0030
Antimony		mg/L	0.00050	0.00050	-	0.00050	0.00050	0.00025	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	0.005	mg/L	0.00133	0.00124	-	0.00135	0.00197	0.00175	0.00238	0.00167	0.00179	0.00148	0.00174	0.00142
Barium		mg/L	0.01440	0.01487	-	0.01480	0.01987	0.01615	0.0159	0.0143	0.0160	0.0153	0.0173	0.0181
Beryllium		mg/L	0.00010	0.00010	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth		mg/L	-	-	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron		mg/L	0.05000	0.05000	-	0.05000	0.05000	0.02500	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	0.00006	mg/L	0.00001	0.00001	-	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (Dissolved)		mg/L	-	-	-	-	-	18.73	14.7	14.5	17.1	19.6	23.4	23.1
Chromium		mg/L	0.00100	0.00100	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt		mg/L	-	-	-	0.00020	0.00041	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	0.002	mg/L	0.00062	0.00058	-	0.00056	0.00067	0.00078	0.00062	0.00052	0.00067	0.00088	0.00103	0.00094
Iron	0.3	mg/L	0.02860	0.04233	-	0.08183	0.14150	0.05253	0.113	0.0578	0.0578	0.0198	0.0427	0.0241
Lead	0.001	mg/L	0.00020	0.00020	-	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium		mg/L	0.00500	0.00347	-	0.00590	0.01493	0.00907	0.0077	0.0079	0.0088	0.0092	0.0104	0.0104
Magnesium (Dissolved)		mg/L	-	-	-	-	-	2.40	1.97	1.87	2.24	2.46	2.88	2.97
Manganese		mg/L	0.00210	0.00370	-	0.01570	0.04593	0.00690	0.0215	0.0025	0.0073	0.0014	0.0067	0.0020
Mercury	0.000026	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073	mg/L	0.00100	0.00100	-	0.00307	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	0.025	mg/L	0.00100	0.00100	-	0.00100	0.00107	0.00058	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium (Dissolved)		mg/L	-	-	-	-	-	1.19	1.02	0.972	1.13	1.23	1.42	1.35
Selenium	0.001	mg/L	0.00010	0.00010	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon		mg/L	-	-	-	0.30467	0.36667	0.24000	0.19	< 0.10	0.17	0.20	0.38	0.45
Silver	0.0025	mg/L	0.00002	0.00002	-	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)		mg/L	-	-	-	-	-	4.82	3.95	3.88	4.65	5.12	5.71	5.58
Strontium		mg/L	0.11400	0.10437	-	0.10090	0.14927	0.15133	0.130	0.124	0.141	0.153	0.176	0.184
Sulphur		mg/L	-	-	-	3.00000	3.03333	2.08333	< 3.0	< 3.0	< 3.0	< 3.0	3.2	3.3
Thallium	0.0008	mg/L	0.00005	0.00001	-	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin		mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium		mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	0.015	mg/L	0.00010	0.00010	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium		mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	mg/L	0.00500	0.00500	-	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium		mg/L	-	-	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-18 Parameter	Sample date		10/9/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		7.63	-	7.72	7.66	0.78	-
Turbidity	NTU	0.1	1.0	0.1	0.8	0.8	0.00	163.64
Specific conductivity	umhos/cm	1.0	180	1	190	190	0.00	197.79
Hardness, as CaCO3 (T)	mg/L	0.50	72.6	-	72.9	72.9	0.00	-
Hardness, as CaCO3 (D)			70.3	-	71.0	70.0	1.42	-
Total alkalinity, as CaCO3	mg/L	1.0	41	1	43	42	2.35	190.48
Carbonate, as CaCO3	mg/L	1.0	1	-	1	1	0.00	-
Bicarbonate, as CaCO3	mg/L	1.0	41	-	42	41	2.41	-
TDS	mg/L	10	120	10	115	120	4.26	169.23
TDS, calculated	mg/L	1.0	94	-	96	95	1.05	-
TSS	mg/L	1	2	1	1	3	100.00	66.67
Total organic carbon	mg/L	0.40	5.2	0.4	5.2	5.0	3.92	171.43
Dissolved organic carbon	mg/L	0.40	5.0	0.4	5.0	4.9	2.02	170.37
Major Ions								
Chloride	mg/L	1.0	25	1	25	25	0.00	184.62
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.0010	0.0076	0.0010	0.0073	0.0025	97.96	153.49
Cyanide (WAD)	mg/L	0.0010	0.001	0.001	0.001	0.0010	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.1	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.99	0.05	1.1	0.94	15.69	180.77
Sulfate	mg/L	1.0	12	1	12	12	0.00	169.23
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.05	0.068	0.05	30.51	0.00
Nitrate	mg/L	0.10	0.1	0.1	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.29	0.1	0.30	0.23	26.42	-
Total phosphorus	mg/L	0.020	0.042	0.02	0.02	0.02	0.00	70.97
Orthophosphate (P)	mg/L	0.010	0.01	0.01	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.0053	0.0030	0.0125	0.0070	56.41	55.42
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.00169	0.00010	0.00179	0.00193	7.53	177.65
Barium	mg/L	0.0010	0.0186	0.0010	0.0189	0.0193	2.09	179.59
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00

QAQC MEL-18 Parameter	Sample date		10/9/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Calcium (total)	mg/L	0.050	24.1	-	24.2	24.1	0.41	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00050	0.00137	0.00050	0.00180	0.00103	54.42	93.05
Iron	mg/L	0.010	0.066	0.010	0.059	0.080	30.22	147.37
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.0106	0.0020	0.0112	0.0113	0.89	136.51
Magnesium (total)	mg/L	0.050	3.03	-	3.01	3.11	3.27	-
Manganese	mg/L	0.0010	0.0050	0.0010	0.0049	0.0063	25.00	133.33
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.0010	0.0010	0.001	0.001	0.00	0.00
Potassium (total)	mg/L	0.050	1.35	-	1.38	1.41	2.15	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.46	0.10	0.48	0.47	2.11	128.57
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	5.62	-	5.58	5.74	2.83	-
Strontium	mg/L	0.0010	0.177	0.0010	0.196	0.197	0.51	197.75
Sulphur	mg/L	3.0	4.1	3.0	3.2	3.4	6.06	30.99
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.0053	0.0030	0.003	0.003	0.00	55.42
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.00148	0.00010	0.00147	0.00142	3.46	174.68
Barium	mg/L	0.0010	0.0181	0.0010	0.0181	0.0181	0.00	179.06
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	23.2	-	23.5	23.1	1.72	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00

QAQC MEL-18 Parameter	Sample date		10/9/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00020	0.00133	0.00020	0.00095	0.00094	1.06	147.71
Iron	mg/L	0.0050	0.0648	0.0050	0.0493	0.0241	68.66	<i>171.35</i>
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.0106	0.0020	0.0104	0.0104	0.00	136.51
Magnesium (Dissolved)	mg/L	0.050	2.98	-	3.01	2.97	1.34	-
Manganese	mg/L	0.0010	0.0020	0.0010	0.0017	0.0020	16.22	66.67
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0010	0.001	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	1.34	-	1.36	1.35	0.74	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.46	0.10	0.45	0.45	0.00	128.57
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	5.51	-	5.65	5.58	1.25	-
Strontium	mg/L	0.0010	0.181	0.0010	0.183	0.184	0.54	<i>197.80</i>
Sulphur	mg/L	3.0	3.6	3.0	4.1	3.3	21.62	18.18
Thallium	mg/L	0.000010	0.00001	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-20	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2020	C1H4548	C1I9083	C1K4962	C1O6543	C1R5258	C1T8362
Field Measured										
Temperature	°C	6.49	6.24	5.58	1.8	11.2	9.58	1.5	6	3.4
pH	pH units	7.72	7.75	7.87	7.89	8.04	8.28	7.83	8.1	7.08
Conductivity	uS/cm	1607.59	2112.41	2619.00	1436	1837	2016	3654	1610	5161
Dissolved oxygen	mg/L	9.47	10.64	10.68	12.15	7.68	10.48	9.43	12.1	12.22
Dissolved oxygen	%	78.88	84.77	88.20	87.8	70.3	92.5	80	105.1	93.5
Turbidity	NTU	-	-	9	-	-	-	16.6	3.57	6.83
Conventional Parameters										
pH	pH units	7.73	7.74	7.77	7.70	7.77	7.82	7.69	7.88	7.74
Turbidity	NTU	125.00	9.76	12.62	32	22	6.1	12	1.5	2.1
Hardness, as CaCO3 (T)	mg/L	259.75	395.70	382.50	250	325	368	676	393	283
Hardness, as CaCO3 (D)	mg/L	292.67	396.90	380.17	240	335	364	668	379	295
Total alkalinity, as CaCO3	mg/L	72.88	72.14	85.17	76	83	88	93	92	79
TDS	mg/L	839.38	1183.57	1037.50	745	965	970	2000	855	690
TDS, calculated	mg/L	-	-	1253.33	-	-	-	2100	970	690
TSS	mg/L	92.75	16.86	20.00	40	23	26	22	3	6
Major Ions										
Chloride	mg/L	273.75	419.14	391.67	240	300	340	890	350	230
Cyanide	mg/L	0.02	0.02	0.01	0.026	0.022	0.010	0.012	0.0074	0.0086
Cyanide (free)	mg/L	-	-	0.00795	0.016	0.01	0.0041	0.0061	0.0037	0.0078
Cyanide (WAD)	mg/L	-	-	0.0065	0.016	-	0.0045	0.0042	0.0037	0.0041
Fluoride	mg/L	140.38	0.11	0.09	< 0.10	0.10	0.14	0.13	< 0.10	< 0.10
Silica	mg/L	-	-	2.7	-	-	-	3.5	2.1	2.5
Sulfate	mg/L	0.14	227.14	243.33	220	260	320	320	190	150
Nutrients and Chlorophyll a										
Ammonia Nitrogen	mg/L	4.84	7.54	7.98	8.1	10	9.2	13	4.8	2.8
Nitrate	mg/L	8.04	11.77	11.95	6.97	8.65	9.29	30.3	10.8	5.71
Nitrite	mg/L	0.19	0.28	0.23	0.096	0.123	0.417	0.475	0.174	0.092
Nitrate + nitrite	mg/L	8.22	12.05	12.19	7.07	8.77	9.71	30.8	11.0	5.80
Total phosphorus	mg/L	0.22	0.08	0.07	0.094	0.10	0.082	0.076	0.038	< 0.020
Orthophosphate (P)	mg/L	0.06	0.06	0.07	0.094	0.13	0.12	0.029	0.012	< 0.010
Total Metals										
Aluminum	mg/L	2.00863	0.31857	0.25593	0.531	0.299	0.338	0.248	0.0357	0.0839
Antimony	mg/L	0.00229	0.00126	0.00106	0.00161	0.00172	0.00202	< 0.0010	< 0.00050	< 0.00050
Arsenic	mg/L	0.09328	0.20380	0.23905	0.447	0.377	0.422	0.0970	0.0563	0.0350
Barium	mg/L	0.05994	0.05099	0.05925	0.0449	0.0532	0.0567	0.0832	0.0640	0.0535
Beryllium	mg/L	0.00028	0.00006	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00010
Bismuth	mg/L	0.00283	0.00057	0.00058	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010
Boron	mg/L	0.34950	0.23371	0.21133	0.146	0.193	0.233	0.46	0.145	0.091
Cadmium	mg/L	0.00005	0.00004	0.00007	0.000053	0.000054	0.000054	0.000137	0.000062	0.000038
Calcium (total)	mg/L	66.03750	102.20000	104.60000	72.3	91.6	103	170	110	80.7
Chromium	mg/L	0.00618	0.00096	0.00072	0.0013	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010
Cobalt	mg/L	0.00454	0.00516	0.00524	0.00644	0.00695	0.00777	0.00578	0.00255	0.00195
Copper	mg/L	0.01182	0.01014	0.00844	0.0154	0.0112	0.00973	0.0068	0.00402	0.00346
Iron	mg/L	3.20175	0.60300	0.64867	1.42	0.724	0.806	0.489	0.194	0.259

MEL-20	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2020	C1H4548	C1I9083	C1K4962	C1O6543	C1R5258	C1T8362
Lead	mg/L	0.00613	0.00559	0.00700	0.0196	0.00980	0.00748	0.00305	0.00077	0.00127
Lithium	mg/L	0.01687	0.00676	0.00573	0.0035	0.0044	0.0055	0.0110	0.0057	0.0043
Magnesium (total)	mg/L	23.08750	34.19286	29.45000	16.8	23.4	26.8	61.3	28.6	19.8
Manganese	mg/L	0.22208	0.36114	0.30133	0.268	0.339	0.323	0.450	0.243	0.185
Mercury	mg/L	0.00001	0.00002	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00670	0.00601	0.00693	0.0096	0.0101	0.0117	0.0058	0.0025	0.0019
Nickel	mg/L	0.02458	0.02150	0.01995	0.0145	0.0204	0.0263	0.0294	0.0171	0.0120
Potassium (total)	mg/L	13.74125	16.18429	15.94167	12.9	15.4	17.7	27.7	13.1	8.85
Selenium	mg/L	0.00040	0.00181	0.00481	0.00830	0.00770	0.00768	0.00281	0.00102	0.00133
Silicon	mg/L	5.39500	1.94014	1.66667	1.79	1.75	1.83	2.26	1.07	1.30
Silver	mg/L	0.00006	0.00002	0.00002	0.000027	0.000026	0.000025	< 0.000040	< 0.000020	< 0.000020
Sodium (total)	mg/L	150.87500	234.78571	215.83333	154	203	219	419	184	116
Strontium	mg/L	0.58350	0.82000	0.78100	0.489	0.637	0.718	1.55	0.783	0.509
Sulphur	mg/L	49.22500	86.11429	85.16667	78.3	92.9	103	121	62.9	52.9
Thallium	mg/L	0.00006	0.00002	0.00002	0.000022	0.000022	< 0.000010	0.000047	0.000019	0.000015
Tin	mg/L	0.01417	0.00286	0.00292	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Titanium	mg/L	0.11403	0.01529	0.01032	0.0208	0.0107	0.0134	0.012	< 0.0050	< 0.0050
Uranium	mg/L	0.00639	0.00566	0.00360	0.00244	0.00333	0.00406	0.00629	0.00329	0.00217
Vanadium	mg/L	0.01527	0.00286	0.00292	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Zinc	mg/L	0.01595	0.00330	0.00292	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Zirconium	mg/L	0.00246	0.00061	0.00041	0.00067	0.00039	0.00039	0.00056	0.00019	0.00023
Dissolved Metals										
Aluminum	mg/L	0.01625	0.04003	0.01515	0.0279	0.0161	0.0158	0.0147	0.0090	0.0074
Antimony	mg/L	0.00233	0.00089	0.00108	0.00160	0.00183	0.00203	< 0.0010	< 0.00050	< 0.00050
Arsenic	mg/L	0.04917	0.17910	0.18735	0.314	0.305	0.352	0.0783	0.0466	0.0282
Barium	mg/L	0.04285	0.04821	0.05522	0.0389	0.0497	0.0519	0.0747	0.0631	0.0530
Beryllium	mg/L	0.00025	0.00006	0.00006	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00010
Bismuth	mg/L	0.00250	0.00057	0.00058	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010
Boron	mg/L	0.34750	0.22871	0.19933	0.143	0.182	0.236	0.40	0.146	0.089
Cadmium	mg/L	0.00004	0.00004	0.00005	0.000027	0.000043	0.000035	0.000132	0.000050	0.000032
Calcium (Dissolved)	mg/L	74.60	104.14	105.40	69.8	94.3	102	172	108	86.3
Chromium	mg/L	0.00317	0.00057	0.00058	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010
Cobalt	mg/L	0.00256	0.00493	0.00475	0.00542	0.00649	0.00674	0.00557	0.00238	0.00189
Copper	mg/L	0.00641	0.00894	0.00672	0.0117	0.00895	0.00680	0.00588	0.00392	0.00306
Iron	mg/L	0.04107	0.09546	0.04923	0.0311	0.0255	0.0350	0.047	0.0782	0.0786
Lead	mg/L	0.00051	0.00123	0.00042	0.00047	0.00052	0.00060	0.00041	0.00025	0.00026
Lithium	mg/L	0.01453	0.00706	0.00522	0.0029	0.0041	0.0053	0.0095	0.0053	0.0042
Magnesium (Dissolved)	mg/L	25.88	33.19	28.35	15.9	24.2	26.4	57.8	26.5	19.3
Manganese	mg/L	0.17392	0.34100	0.26867	0.239	0.323	0.228	0.432	0.206	0.184
Mercury	mg/L	0.00001	0.00002	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00788	0.00606	0.00693	0.0093	0.0103	0.0116	0.0060	0.0025	0.0019
Nickel	mg/L	0.02272	0.01966	0.01843	0.0119	0.0189	0.0224	0.0287	0.0167	0.0120
Potassium (Dissolved)	mg/L	14.52	16.15	15.70	12.3	16.1	17.3	26.9	12.8	8.79
Selenium	mg/L	0.00040	0.00183	0.00471	0.00803	0.00751	0.00758	0.00284	0.00097	0.00134
Silicon	mg/L	1.75167	1.43500	1.22833	1.08	1.17	1.31	1.69	1.00	1.12

MEL-20	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2020	C1H4548	C1I9083	C1K4962	C1O6543	C1R5258	C1T8362
Silver	mg/L	0.00005	0.00001	0.00010	< 0.000020	< 0.000020	< 0.000020	< 0.000040	0.000564	< 0.000020
Sodium (Dissolved)	mg/L	175.80	228.99	214.33	148	203	220	424	175	116
Strontium	mg/L	0.59950	0.82100	0.75017	0.452	0.616	0.681	1.47	0.752	0.530
Sulphur	mg/L	56.70000	86.12857	82.88333	73.3	91.2	101	118	62.1	51.7
Thallium	mg/L	0.00003	0.00002	0.00002	0.000014	0.000018	0.000017	0.000041	0.000019	0.000012
Tin	mg/L	0.01250	0.00286	0.00292	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Titanium	mg/L	0.01250	0.00384	0.00292	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Uranium	mg/L	0.00644	0.00552	0.00359	0.00230	0.00339	0.00403	0.00644	0.00327	0.00213
Vanadium	mg/L	0.01250	0.00286	0.00292	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Zinc	mg/L	0.01250	0.00286	0.00378	0.0077	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050
Zirconium	mg/L	0.00057	0.00033	0.00014	0.00014	< 0.00010	< 0.00010	0.00028	0.00017	0.00014

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-20 Parameter	Sample date		6/20/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		5.77	-	7.68	7.70	0.26	-
Turbidity	NTU	0.1	0.1	0.1	31	32	3.17	0.00
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	250	250	0.00	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	247	240	2.87	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	77	76	1.31	0.00
TDS	mg/L	10	10	10	805	745	7.74	0.00
TSS	mg/L	1	1	1	38	40	5.13	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	230	240	4.26	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.025	0.026	3.92	0.00
Cyanide (free)	mg/L	0.0010	-	0.0010	-	0.016	-	-
Cyanide (WAD)	mg/L	0.0010	-	0.0010	-	0.016	-	-
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Sulfate	mg/L	1.0	1	1.0	220	220	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	8.1	8.1	0.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	7.00	6.97	0.43	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.099	0.096	3.08	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	7.10	7.07	0.42	-
Total phosphorus	mg/L	0.020	0.02	0.020	0.092	0.094	2.15	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.095	0.094	1.06	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.0038	0.0030	0.561	0.531	5.49	23.53
Antimony	mg/L	0.00050	0.0005	0.00050	0.00164	0.00161	1.85	0.00
Arsenic	mg/L	0.00010	0.00017	0.00010	0.445	0.447	0.45	51.85
Barium	mg/L	0.0010	0.001	0.0010	0.0455	0.0449	1.33	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.147	0.146	0.68	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000046	0.000053	14.14	0.00
Calcium (total)	mg/L	0.050	0.05	-	72.4	72.3	0.14	-
Chromium	mg/L	0.0010	0.001	0.0010	0.0012	0.0013	8.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00643	0.00644	0.16	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.0152	0.0154	1.31	0.00
Iron	mg/L	0.010	0.01	0.010	1.41	1.42	0.71	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0195	0.0196	0.51	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0036	0.0035	2.82	0.00

QAQC MEL-20 Parameter	Sample date		6/20/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0095	0.0093	2.13	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0122	0.0119	2.49	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	12.7	12.3	3.20	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00831	0.00803	3.43	0.00
Silicon	mg/L	0.10	0.1	0.10	1.14	1.08	5.41	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.000021	0.00002	4.88	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	153	148	3.32	-
Strontium	mg/L	0.0010	0.001	0.0010	0.477	0.452	5.38	0.00
Sulphur	mg/L	3.0	3	-	77.1	73.3	5.05	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.000015	0.000014	6.90	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00242	0.00230	5.08	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.0077	42.52	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.00014	33.33	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-21	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2021	C1H4548	C1I9037	C1K4962	C1O6503	C1R4985	C1T8375
Field Measured										
Temperature	°C	7.61	6.67	5.94	3.72	7.8	8.7	7.2	4.9	3.3
pH	pH units	8.05	7.68	7.89	7.82	7.88	7.38	8.31	8.09	7.88
Conductivity	uS/cm	1701.19	2431.81	1961.45	947.7	1495	1726	2206	2643	2751
Dissolved oxygen	mg/L	9.88	10.94	38.94	96.1	9.52	10.97	10.09	94.6	12.36
Dissolved oxygen	%	91.46	89.30	63.81	12.65	80.5	94.7	89.2	12.38	93.4
Turbidity	NTU	-	-	37.93	-	-	-	44.2	48.8	20.8
Conventional Parameters										
pH	pH units	7.85	7.75	7.87	7.78	7.89	7.88	7.87	7.97	7.83
Turbidity	NTU	58.17	6.60	15.92	13	6.2	3.3	23	39	11
Hardness, as CaCO3 (T)	mg/L	297.00	606.29	488.33	248	399	425	554	692	612
Hardness, as CaCO3 (D)	mg/L	308.67	613.00	485.17	241	394	427	544	681	624
Total alkalinity, as CaCO3	mg/L	83.29	83.86	81.50	58	65	69	85	120	92
TDS	mg/L	957.14	1281.43	1159.17	560	875	970	1370	1710	1470
TDS, calculated	mg/L	-	-	1366.67	-	-	-	1200	1500	1400
TSS	mg/L	42.71	15.43	28.50	21	7	10	41	68	24
Major Ions										
Chloride	mg/L	334.29	468.57	415.00	190	300	370	480	610	540
Cyanide	mg/L	0.01	0.01	0.01	0.0070	< 0.0050	< 0.0050	0.010	< 0.0050	0.0092
Cyanide (free)	mg/L	-	-	0.00	-	0.0037	-	-	-	-
Cyanide (WAD)	mg/L	-	-	0.00	-	0.0027	-	-	-	-
Fluoride	mg/L	0.14	0.12	0.11	< 0.10	0.11	< 0.10	0.14	0.17	0.13
Silica	mg/L	-	-	4.37	-	-	-	4.1	5.0	4.0
Sulfate	mg/L	132.14	188.43	215.83	85	130	170	270	330	310
Nutrients and Chlorophyll a										
Ammonia Nitrogen	mg/L	1.99	0.52	0.64	0.57	0.43	0.24	0.83	0.54	1.2
Nitrate	mg/L	2.71	1.51	3.96	0.90	1.51	2.10	6.69	4.79	7.78
Nitrite	mg/L	0.09	0.02	0.04	0.020	0.018	0.025	0.066	0.046	0.050
Nitrate + nitrite	mg/L	2.80	1.53	4.00	0.92	1.53	2.13	6.76	4.83	7.83
Total phosphorus	mg/L	0.090	0.020	0.04	0.032	0.038	< 0.020	0.075	0.091	< 0.020
Orthophosphate (P)	mg/L	0.015	0.021	0.01	0.012	0.016	0.012	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	0.86486	0.24541	0.47067	0.364	0.195	0.186	0.424	1.35	0.305
Antimony	mg/L	0.00420	0.00231	0.00118	0.00091	0.00110	0.00135	0.00166	0.00123	0.00080
Arsenic	mg/L	0.02993	0.11237	0.06500	0.137	0.0876	0.0624	0.0266	0.0592	0.0172
Barium	mg/L	0.04710	0.08844	0.06827	0.0415	0.0586	0.0672	0.0831	0.0820	0.0772
Beryllium	mg/L	0.00012	0.00006	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	0.00117	0.00064	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.52450	0.28657	0.13783	0.085	0.130	0.143	0.190	0.160	0.119
Cadmium	mg/L	0.00004	0.00007	0.00006	0.000040	0.000062	0.000054	0.000051	0.000075	0.000056
Calcium (total)	mg/L	77.28571	186.58571	135.71667	74.3	113	124	156	185	162
Chromium	mg/L	0.00247	0.00086	0.00123	< 0.0010	< 0.0010	< 0.0010	0.0013	0.0041	< 0.0010
Cobalt	mg/L	0.00286	0.00517	0.00351	0.00204	0.00256	0.00324	0.00449	0.00472	0.00399
Copper	mg/L	0.00744	0.00697	0.00555	0.00687	0.00559	0.00463	0.00476	0.00764	0.00381
Iron	mg/L	1.38200	0.47529	1.01917	1.02	0.480	0.408	0.848	2.75	0.609

MEL-21	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2021	C1H4548	C1I9037	C1K4962	C1O6503	C1R4985	C1T8375
Lead	mg/L	0.00195	0.00566	0.00752	0.0157	0.00759	0.00425	0.00168	0.0135	0.00242
Lithium	mg/L	0.03550	0.13563	0.03712	0.0361	0.0509	0.0482	0.0366	0.0313	0.0196
Magnesium (total)	mg/L	25.28571	34.21286	36.38333	15.2	28.1	28.2	40.0	56.1	50.7
Manganese	mg/L	0.12273	0.33914	0.20467	0.118	0.176	0.169	0.215	0.319	0.231
Mercury	mg/L	0.00001	0.00002	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.01834	0.00954	0.00577	0.0037	0.0041	0.0051	0.0069	0.0094	0.0054
Nickel	mg/L	0.01971	0.02683	0.02010	0.0119	0.0171	0.0213	0.0224	0.0271	0.0208
Potassium (total)	mg/L	16.10571	13.37286	12.97333	6.77	9.67	11.1	16.5	17.7	16.1
Selenium	mg/L	0.00032	0.00039	0.00048	0.00053	0.00054	0.00049	0.00055	0.00029	0.00046
Silicon	mg/L	3.57167	2.47229	2.44667	1.39	1.29	1.59	2.83	4.99	2.59
Silver	mg/L	0.00003	0.00001	0.00002	< 0.000020	< 0.000020	< 0.000020	0.000022	0.000031	< 0.000020
Sodium (total)	mg/L	172.41429	140.37143	171.95000	65.7	132	140	207	250	237
Strontium	mg/L	0.73783	2.29271	1.12033	0.822	1.08	1.21	1.22	1.32	1.07
Sulphur	mg/L	47.08571	65.50000	74.25000	29.5	47.8	57.5	90.7	113	107
Thallium	mg/L	0.00003	0.00001	0.00002	0.000011	0.000013	< 0.000010	0.000026	0.000030	0.000020
Tin	mg/L	0.00583	0.00321	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	0.04797	0.01003	0.02485	0.0136	0.0061	0.0078	0.0329	0.0729	0.0158
Uranium	mg/L	0.00653	0.00442	0.00413	0.00211	0.00312	0.00343	0.00468	0.00701	0.00444
Vanadium	mg/L	0.00583	0.00321	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.00639	0.00321	0.00325	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0070	< 0.0050
Zirconium	mg/L	0.00120	0.00048	0.00060	0.00044	0.00022	0.00029	0.00064	0.00150	0.00053
Dissolved Metals										
Aluminum	mg/L	0.01347	0.01531	0.01182	0.0164	0.0147	0.0164	0.0087	0.0078	0.0069
Antimony	mg/L	0.00424	0.00169	0.00116	0.00088	0.00110	0.00133	0.00163	0.00118	0.00086
Arsenic	mg/L	0.02132	0.09599	0.03758	0.0732	0.0652	0.0492	0.0176	0.00947	0.0108
Barium	mg/L	0.04065	0.09013	0.06530	0.0366	0.0603	0.0648	0.0736	0.0693	0.0872
Beryllium	mg/L	0.00012	0.00007	0.00005	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	0.00117	0.00071	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.53350	0.28786	0.13917	0.086	0.137	0.152	0.170	0.174	0.116
Cadmium	mg/L	0.00002	0.00007	0.00005	0.000021	0.000041	0.000054	0.000039	0.000056	0.000061
Calcium (Dissolved)	mg/L	79.82	188.43	136.68333	72.1	114	123	158	184	169
Chromium	mg/L	0.00117	0.00071	0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	0.00178	0.00510	0.00284	0.00156	0.00225	0.00301	0.00354	0.00303	0.00367
Copper	mg/L	0.00432	0.00590	0.00347	0.00411	0.00441	0.00389	0.00247	0.00307	0.00288
Iron	mg/L	0.01665	0.02369	0.01695	0.0058	0.0069	0.0191	0.0179	0.0242	0.0278
Lead	mg/L	0.00023	0.00032	0.00022	< 0.00020	0.00022	0.00031	< 0.00020	0.00047	< 0.00020
Lithium	mg/L	0.03447	0.14589	0.03747	0.0354	0.0545	0.0503	0.0346	0.0306	0.0194
Magnesium (Dissolved)	mg/L	26.55	34.51	34.93333	14.8	26.6	29.2	36.1	53.5	49.4
Manganese	mg/L	0.09307	0.33857	0.19333	0.107	0.165	0.163	0.196	0.284	0.245
Mercury	mg/L	0.00001	0.00002	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.02050	0.00987	0.00580	0.0036	0.0046	0.0052	0.0071	0.0093	0.0050
Nickel	mg/L	0.01718	0.02670	0.01808	0.0104	0.0162	0.0207	0.0187	0.0228	0.0197
Potassium (Dissolved)	mg/L	16.27	13.73	12.87167	6.53	9.80	11.3	16.0	17.1	16.5
Selenium	mg/L	0.00030	0.00041	0.00050	0.00049	0.00052	0.00053	0.00058	0.00028	0.00059
Silicon	mg/L	2.08333	2.20757	1.68500	0.93	1.27	1.38	2.01	2.66	1.86

MEL-21	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2021	C1H4548	C1I9037	C1K4962	C1O6503	C1R4985	C1T8375
Silver	mg/L	0.00002	0.00001	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)	mg/L	185.67	140.97	169.78333	64.7	122	144	197	238	253
Strontium	mg/L	0.75717	2.40357	1.14667	0.800	1.20	1.20	1.23	1.27	1.18
Sulphur	mg/L	49.31667	66.92857	74.50000	30.2	50.3	57.9	87.6	116	105
Thallium	mg/L	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	0.000014	0.000012	0.000016
Tin	mg/L	0.00583	0.00357	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	0.00583	0.00357	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00635	0.00459	0.00419	0.00208	0.00314	0.00354	0.00483	0.00695	0.00457
Vanadium	mg/L	0.00583	0.00357	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.00583	0.00394	0.00250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	0.00032	0.00021	0.00016	< 0.00010	< 0.00010	< 0.00010	0.00019	0.00035	0.00024

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-21 Parameter	Sample date		8/24/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.35	-	7.86	7.87	0.13	-
Turbidity	NTU	0.1	0.1	0.1	25	23	8.33	0.00
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	554	554	0.00	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	523	544	3.94	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	85	85	0.00	0.00
TDS	mg/L	10	10	10	1320	1370	3.72	0.00
TDS, calculated	mg/L	1.0	1	-	1200	1200	0.00	-
TSS	mg/L	1	1	1	36	41	12.99	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	480	480	0.00	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.010	0.010	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.12	0.14	15.38	0.00
Silica	mg/L	0.050	0.05	0.050	4.2	4.1	2.41	0.00
Sulfate	mg/L	1.0	1	1.0	280	270	3.64	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.84	0.83	1.20	0.00
Nitrate	mg/L	0.10	0.1	0.10	7.03	6.69	4.96	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.069	0.066	4.44	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	7.10	6.76	4.91	-
Total phosphorus	mg/L	0.020	0.02	0.020	0.059	0.075	23.88	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.537	0.424	23.52	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.00167	0.00166	0.60	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.0268	0.0266	0.75	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0827	0.0831	0.48	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.188	0.190	1.06	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000056	0.000051	9.35	0.00
Calcium (total)	mg/L	0.050	0.05	-	156	156	0.00	-
Chromium	mg/L	0.0010	0.001	0.0010	0.0016	0.0013	20.69	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00449	0.00449	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00483	0.00476	1.46	0.00
Iron	mg/L	0.010	0.01	0.010	1.01	0.848	17.44	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.00166	0.00168	1.20	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0381	0.0366	4.02	0.00

QAQC MEL-21 Parameter	Sample date		8/24/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0066	0.0071	7.30	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0192	0.0187	2.64	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	16.0	16.0	0.00	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00055	0.00058	5.31	0.00
Silicon	mg/L	0.10	0.1	0.10	1.89	2.01	6.15	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	193	197	2.05	-
Strontium	mg/L	0.0010	0.001	0.0010	1.20	1.23	2.47	0.00
Sulphur	mg/L	3.0	3	-	86.6	87.6	1.15	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.000015	0.000014	6.90	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00478	0.00483	1.04	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.00017	0.00019	11.11	0.00
% Exceedance*							1%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-22	Sample date	Annual Average				6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2018	2019	2020	2021	C1H4548	C1I9069	C1K4962	C1O6552	C1R4988	C1T8387
Field Measured											
Temperature	°C	-	7.13	11.54	7.76	5.76	13.6	11.78	6.8	5.9	2.7
pH	pH units	-	7.56	7.78	8.14	7.97	7.98	8.08	8.27	8.84	7.69
Conductivity	uS/cm	-	5591.57	5327.00	2896.08	3700	3677	4263	39.47	1750	3947
Dissolved oxygen	mg/L	-	11.58	9.91	11.60	12.44	6.98	11.32	10.32	14.99	13.57
Dissolved oxygen	%	-	102.40	89.48	96.22	100.6	67.9	106	85.7	115.6	101.5
Turbidity	NTU	-	-	-	3.19	-	-	-	3.03	2.13	4.42
Conventional Parameters											
pH	pH units	7.51	7.65	7.70	7.91	7.92	7.89	7.90	7.76	7.99	8.02
Turbidity	NTU	4.19	3.83	2.94	2.22	1.2	0.8	0.6	0.9	0.5	9.3
Specific conductivity	umhos/cm	7479.23	7500.00	4088.57	3900.00	-	3900	-	-	-	-
Hardness, as CaCO3 (T)	mg/L	2172.43	1285.57	1087.88	852.50	667	860	864	845	937	942
Hardness, as CaCO3 (D)	mg/L	2067.40	1257.14	1081.38	818.83	662	796	864	821	878	892
Total alkalinity, as CaCO3	mg/L	65.43	60.00	73.88	94.67	100	100	100	82	88	98
TDS	mg/L	5335.36	3468.57	2889.38	2223.33	1910	2170	2250	2460	2350	2200
TDS, calculated	mg/L	-	-	-	2166.67	-	-	-	2200	2200	2100
TSS	mg/L	12.64	6.43	8.13	5.00	3	3	3	3	3	15
Total organic carbon	mg/L	17.15	17.50	10.20	8.40	-	8.4	-	-	-	-
Major Ions											
Chloride	mg/L	2895.71	1590.00	1327.50	1023.33	960	1000	1100	1000	1100	980
Cyanide	mg/L	0.01	0.01	0.01	0.01	0.019	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	mg/L	-	-	-	0.0046	-	0.0046	-	-	-	-
Cyanide (WAD)	mg/L	-	-	-	0.0035	-	0.0035	-	-	-	-
Fluoride	mg/L	0.10	0.10	0.11	0.12	0.13	0.16	0.15	0.13	0.10	< 0.10
Silica	mg/L	-	-	-	1.71	-	-	-	1.8	0.83	2.5
Sulfate	mg/L	297.43	240.00	213.88	285.00	220	250	280	340	310	310
Nutrients and Chlorophyll a											
Ammonia Nitrogen	mg/L	18.18	10.73	7.61	3.88	7.6	4.5	4.0	3.2	1.4	2.6
Nitrate	mg/L	28.58	15.66	19.08	12.13	11.4	10.5	10.8	14.6	14.0	11.5
Nitrite	mg/L	0.40	0.22	0.47	0.28	0.363	0.408	0.470	0.203	0.132	0.086
Nitrate + nitrite	mg/L	28.97	15.92	19.57	12.42	11.8	10.9	11.2	14.9	14.1	11.6
Total phosphorus	mg/L	0.04	0.04	0.03	0.02	< 0.020	0.022	< 0.020	0.046	0.050	< 0.020
Orthophosphate (P)	mg/L	0.01	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	0.11182	0.08091	0.15640	0.03765	0.0316	0.0324	0.0314	0.0356	0.0144	0.0805
Antimony	mg/L	0.00359	0.00157	0.00138	0.00178	0.0029	0.0024	0.0021	0.0014	0.0011	0.00077
Arsenic	mg/L	0.00483	0.00406	0.01172	0.00692	0.0119	0.00808	0.00656	0.00518	0.00434	0.00545
Barium	mg/L	0.20231	0.09297	0.08998	0.06870	0.0556	0.0630	0.0696	0.0694	0.0729	0.0817
Beryllium	mg/L	0.00072	0.00031	0.00028	0.00009	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00010
Bismuth	mg/L	-	0.00314	0.00275	0.00092	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0010
Boron	mg/L	0.55367	0.28243	0.38875	0.36950	0.34	0.38	0.37	0.44	0.36	0.327
Cadmium	mg/L	0.00031	0.00014	0.00010	0.00005	0.000038	0.000087	0.000043	0.000049	0.000044	0.000054
Calcium (total)	mg/L	718.69091	371.14286	308.86250	230.66667	174	224	233	226	261	266
Chromium	mg/L	0.00642	0.00314	0.00288	0.00092	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0010
Cobalt	mg/L	-	0.00197	0.00159	0.00159	0.00170	0.00135	0.00151	0.00167	0.00155	0.00175
Copper	mg/L	0.01398	0.00413	0.00369	0.00315	0.0033	0.0035	0.0033	0.0031	0.0032	0.00249
Iron	mg/L	0.31382	0.23971	0.32888	0.15883	0.110	0.062	0.156	0.158	0.144	0.323
Lead	mg/L	0.00158	0.00079	0.00132	0.00030	0.00070	< 0.00040	< 0.00040	< 0.00040	< 0.00040	0.00032
Lithium	mg/L	0.64161	0.24164	0.16948	0.09312	0.0787	0.0899	0.104	0.0924	0.0817	0.112

MEL-22	Sample date	Annual Average				6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2018	2019	2020	2021	C1H4548	C1I9069	C1K4962	C1O6552	C1R4988	C1T8387
Magnesium (total)	mg/L	160.80909	86.91429	77.05875	67.21667	56.8	73.1	68.3	68.3	69.4	67.4
Manganese	mg/L	0.25662	0.16094	0.29361	0.17250	0.285	0.129	0.184	0.104	0.102	0.231
Mercury	mg/L	0.00004	0.00001	0.00004	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00718	0.00363	0.00445	0.00557	0.0075	0.0061	0.0067	0.0050	0.0042	0.0039
Nickel	mg/L	0.02365	0.01876	0.01898	0.01640	0.0195	0.0191	0.0169	0.0149	0.0154	0.0126
Potassium (total)	mg/L	65.57000	34.84286	33.18250	36.20000	33.6	41.3	38.6	36.5	36.1	31.1
Selenium	mg/L	0.00072	0.00033	0.00036	0.00055	0.00046	0.00056	0.00045	0.00069	0.00062	0.00049
Silicon	mg/L	-	1.14557	1.32213	0.92833	1.16	0.72	0.72	1.05	0.50	1.42
Silver	mg/L	0.00020	0.00007	0.00006	0.00002	< 0.000040	< 0.000040	< 0.000040	< 0.000040	< 0.000040	< 0.000020
Sodium (total)	mg/L	990.77273	561.71429	485.52500	438.33333	399	487	451	437	461	395
Strontium	mg/L	18.00182	7.22429	5.99950	3.52500	3.04	3.81	3.82	3.22	3.59	3.67
Sulphur	mg/L	-	88.24286	80.73750	103.00000	74.5	90.6	92.9	120	123	117
Thallium	mg/L	0.00017	0.00007	0.00006	0.00004	0.000044	0.000060	< 0.000020	0.000053	0.000046	0.000043
Tin	mg/L	0.03364	0.01571	0.01375	0.00458	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050
Titanium	mg/L	0.03661	0.01573	0.01491	0.00458	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050
Uranium	mg/L	0.00503	0.00275	0.00380	0.00550	0.00569	0.00644	0.00591	0.00522	0.00507	0.00465
Vanadium	mg/L	0.03591	0.01571	0.01375	0.00458	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050
Zinc	mg/L	0.03629	0.01579	0.01403	0.00625	< 0.010	< 0.010	0.012	< 0.010	< 0.010	0.0055
Zirconium	mg/L	-	0.00037	0.00034	0.00011	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00016
Dissolved Metals											
Aluminum	mg/L	0.02664	0.01579	0.01226	0.00800	0.0078	0.0105	0.0084	0.0098	0.0060	0.0055
Antimony	mg/L	0.00265	0.00136	0.00158	0.00176	0.00302	0.00231	0.00207	0.0013	0.0011	0.00075
Arsenic	mg/L	0.00330	0.00307	0.00777	0.00546	0.00959	0.00738	0.00546	0.00400	0.00333	0.00302
Barium	mg/L	0.17463	0.09549	0.08811	0.06795	0.0560	0.0683	0.0704	0.0658	0.0695	0.0777
Beryllium	mg/L	0.00055	0.00027	0.00031	0.00007	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00020	< 0.00010
Bismuth	mg/L	-	0.00271	0.00313	0.00067	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010
Boron	mg/L	0.40870	0.28471	0.39075	0.35817	0.334	0.380	0.375	0.37	0.39	0.300
Cadmium	mg/L	0.00020	0.00013	0.00009	0.00004	0.000035	0.000045	0.000039	0.000040	0.000045	0.000045
Calcium (Dissolved)	mg/L	613.16	364.43	308.65	224.33333	173	214	234	225	243	257
Chromium	mg/L	0.00530	0.00271	0.00313	0.00067	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010
Cobalt	mg/L	-	0.00164	0.00143	0.00148	0.00156	0.00117	0.00142	0.00161	0.00135	0.00176
Copper	mg/L	0.00406	0.00342	0.00332	0.00278	0.00296	0.00304	0.00296	0.00280	0.00268	0.00225
Iron	mg/L	0.04831	0.04780	0.03221	0.04735	0.0193	0.0281	0.0674	0.056	0.056	0.0573
Lead	mg/L	0.00108	0.00055	0.00063	0.00013	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00040	< 0.00020
Lithium	mg/L	0.57606	0.24941	0.17154	0.09252	0.0785	0.0965	0.108	0.0778	0.0863	0.108
Magnesium (Dissolved)	mg/L	130.24	84.07	75.43	63.03333	56.1	63.9	68.2	62.9	66.1	61.0
Manganese	mg/L	0.14953	0.12347	0.26705	0.15943	0.248	0.107	0.178	0.0973	0.0923	0.234
Mercury	mg/L	0.00001	0.00002	0.00004	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00530	0.00319	0.00446	0.00570	0.0076	0.0070	0.0067	0.0051	0.0038	0.0040
Nickel	mg/L	0.01787	0.01793	0.01831	0.01512	0.0182	0.0167	0.0157	0.0142	0.0135	0.0124
Potassium (Dissolved)	mg/L	55.16	33.39	32.96	34.35000	33.4	36.6	38.5	34.6	34.1	28.9
Selenium	mg/L	0.00053	0.00027	0.00038	0.00052	0.00043	0.00046	0.00048	0.00066	0.00056	0.00050
Silicon	mg/L	-	0.99314	1.10950	0.85833	1.12	0.78	0.71	0.90	0.45	1.19
Silver	mg/L	0.00014	0.00005	0.00006	0.00001	< 0.000020	< 0.000020	< 0.000020	< 0.000040	< 0.000040	< 0.000020
Sodium (Dissolved)	mg/L	791.58	540.29	472.75	414.00000	394	427	448	420	424	371
Strontium	mg/L	14.29404	7.61286	5.92963	3.50167	3.18	3.85	4.03	3.04	3.23	3.68
Sulphur	mg/L	-	86.00000	80.60000	100.23333	74.7	89.8	97.9	111	117	111
Thallium	mg/L	0.00014	0.00007	0.00007	0.00005	0.000045	0.000057	0.000044	0.000046	0.000047	0.000037
Tin	mg/L	0.02650	0.01357	0.01563	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.0050

MEL-22	Sample date	Annual Average				6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2018	2019	2020	2021	C1H4548	C1I9069	C1K4962	C1O6552	C1R4988	C1T8387
Titanium	mg/L	0.02650	0.01357	0.01563	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.0050
Uranium	mg/L	0.00426	0.00278	0.00375	0.00543	0.00606	0.00629	0.00599	0.00524	0.00467	0.00432
Vanadium	mg/L	0.02650	0.01357	0.01563	0.00333	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.0050
Zinc	mg/L	0.02656	0.01359	0.01713	0.00455	< 0.0050	< 0.0050	0.0098	< 0.010	< 0.010	< 0.0050
Zirconium	mg/L	-	0.00027	0.00031	0.00008	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00020	0.00012

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-22 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.41	-	7.94	7.99	0.63	-
Turbidity	NTU	0.1	0.1	0.1	0.5	0.5	0.00	0.00
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	906	937	3.36	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	870	878	0.92	-
Total alkalinity, as CaCO3	mg/L	1.0	1.0	1.0	90	88	2.25	0.00
TDS	mg/L	10	10	10	2290	2350	2.59	0.00
TDS, calculated	mg/L	1.0	1.0	-	2200	2200	0.00	-
TSS	mg/L	1	1	1	3	3	0.00	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	1000	1100	9.52	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.10	0.10	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.85	0.83	2.38	0.00
Sulfate	mg/L	1.0	1	1.0	300	310	3.28	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	1.4	1.4	0.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	13.3	14.0	5.13	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.129	0.132	2.30	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	13.4	14.1	5.09	-
Total phosphorus	mg/L	0.020	0.026	0.020	0.044	0.050	12.77	26.09
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0145	0.0144	0.69	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0011	0.0011	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00406	0.00434	6.67	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0714	0.0729	2.08	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.002	0.002	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.36	0.36	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000048	0.000044	8.70	0.00
Calcium (total)	mg/L	0.050	0.079	-	252	261	3.51	-
Chromium	mg/L	0.0010	0.001	0.0010	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00147	0.00155	5.30	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.0029	0.0032	9.84	0.00
Iron	mg/L	0.010	0.01	0.010	0.129	0.144	10.99	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0004	0.0004	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0799	0.0817	2.23	0.00

QAQC MEL-22 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0037	0.0038	2.67	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0134	0.0135	0.74	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	33.2	34.1	2.67	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00054	0.00056	3.64	0.00
Silicon	mg/L	0.10	0.1	0.10	0.45	0.45	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00004	0.00004	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	414	424	2.39	-
Strontium	mg/L	0.0010	0.001	0.0010	3.18	3.23	1.56	0.00
Sulphur	mg/L	3.0	3	-	111	117	5.26	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.000046	0.000047	2.15	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00466	0.00467	0.21	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0002	0.0002	0.00	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-23	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2021	C1H4548	C1I9117	C1K4962	C1O6549	C1R5233	C1T8399
Field Measured										
Temperature	°C	10.97	11.41	5.08	2.1	2.1	11.59	6.4	5.4	2.9
pH	pH units	7.69	7.88	7.97	8.14	7.27	7.99	8.41	8.17	7.83
Conductivity	uS/cm	276.93	4688.86	5400.00	1492	13002	3963	4762	4240	4941
Dissolved oxygen	mg/L	9.84	8.87	9.86	13.23	0.6	10.43	9.55	13.39	11.97
Dissolved oxygen	%	87.00	78.80	78.75	96.4	4.6	97.1	78.8	105.2	90.4
Turbidity	NTU	-	-	14.43	-	-	-	18.2	10.9	14.2
Conventional Parameters										
pH	pH units	7.83	7.95	7.93	7.86	7.94	7.98	7.94	7.92	7.92
Turbidity	NTU	0.60	30.14	18.77	33	36	8.0	13	7.6	15
Hardness, as CaCO3 (T)	mg/L	79.50	679.14	681.83	280	358	768	939	830	916
Hardness, as CaCO3 (D)	mg/L	80.27	668.29	666.83	272	345	762	892	851	879
Total alkalinity, as CaCO3	mg/L	41.33	158.57	115.17	65	86	130	140	130	140
TDS	mg/L	210.00	2521.43	1994.17	845	1020	2130	2780	2310	2880
TDS, calculated	mg/L	-	-	2766.67	-	-	-	2800	2700	2800
TSS	mg/L	1.33	42.14	21.17	41	18	22	17	8	21
Major Ions										
Chloride	mg/L	50.00	1107.14	736.67	300	350	820	1000	950	1000
Cyanide	mg/L	0.01	0.01	0.02	0.0073	< 0.0050	< 0.0050	0.049	0.046	0.032
Cyanide (free)	mg/L	-	-	0.0041	-	0.0041	-	-	-	-
Cyanide (WAD)	mg/L	-	-	0.0031	-	0.0031	-	-	-	-
Fluoride	mg/L	0.10	0.26	0.20	< 0.10	0.15	0.22	0.28	0.24	0.25
Silica	mg/L	-	-	5.27	-	-	-	5.1	5.3	5.4
Sulfate	mg/L	5.33	351.29	485.00	180	240	490	660	640	700
Nutrients and Chlorophyll a										
Ammonia Nitrogen	mg/L	0.08	5.33	9.38	2.8	3.5	6.0	14	15	15
Nitrate	mg/L	0.10	8.64	18.91	5.44	6.11	14.9	24.2	30.4	32.4
Nitrite	mg/L	0.01	0.31	0.22	0.033	0.056	0.296	0.301	0.366	0.282
Nitrate + nitrite	mg/L	0.10	8.95	19.14	5.48	6.16	15.2	24.5	30.8	32.7
Total phosphorus	mg/L	0.02	0.14	0.04	0.038	0.027	0.021	0.057	0.080	0.030
Orthophosphate (P)	mg/L	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	0.00963	1.33829	0.32533	0.437	0.429	0.372	0.271	0.156	0.287
Antimony	mg/L	0.00050	0.00457	0.00335	0.00151	0.00188	0.0036	0.0048	0.0041	0.0042
Arsenic	mg/L	0.00191	0.02077	0.01039	0.00897	0.00813	0.0132	0.0128	0.00841	0.0108
Barium	mg/L	0.02273	0.09450	0.05442	0.0360	0.0406	0.0746	0.0686	0.0530	0.0537
Beryllium	mg/L	0.00010	0.00026	0.00008	< 0.00010	< 0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Bismuth	mg/L	0.00100	0.00257	0.00083	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Boron	mg/L	0.05000	0.97271	0.71283	0.262	0.345	0.82	1.15	0.79	0.91
Cadmium	mg/L	0.00004	0.00006	0.00007	0.000017	0.000036	0.000063	0.000099	0.000084	0.000115
Calcium (total)	mg/L	22.50000	120.07143	142.08333	58.4	72.1	154	199	179	190
Chromium	mg/L	0.00100	0.00540	0.00113	0.0014	0.0014	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Cobalt	mg/L	0.00020	0.00718	0.01019	0.00434	0.00532	0.0122	0.0139	0.0115	0.0139
Copper	mg/L	0.00096	0.00732	0.01048	0.00259	0.00330	0.0397	0.0065	0.0052	0.0056
Iron	mg/L	0.19267	2.28529	0.63717	1.13	0.761	0.631	0.494	0.289	0.518

MEL-23	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2021	C1H4548	C1I9117	C1K4962	C1O6549	C1R5233	C1T8399
Lead	mg/L	0.00020	0.00263	0.00171	0.00206	0.00141	0.00437	0.00105	0.00048	0.00089
Lithium	mg/L	0.00343	0.04047	0.02120	0.0094	0.0100	0.0261	0.0331	0.0243	0.0243
Magnesium (total)	mg/L	5.66333	91.95714	79.40000	32.6	43.2	93.3	107	93.3	107
Manganese	mg/L	0.00870	0.40727	0.39850	0.208	0.241	0.441	0.524	0.497	0.480
Mercury	mg/L	0.00001	0.00005	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00143	0.01463	0.01030	0.0045	0.0048	0.0107	0.0161	0.0126	0.0131
Nickel	mg/L	0.00150	0.06100	0.06252	0.0220	0.0298	0.0747	0.0851	0.0770	0.0865
Potassium (total)	mg/L	1.99000	39.77143	40.70000	13.7	19.3	39.5	58.8	55.6	57.3
Selenium	mg/L	0.00010	0.00125	0.00137	0.00043	0.00063	0.00132	0.00190	0.00182	0.00210
Silicon	mg/L	0.19333	4.39429	2.41167	1.39	1.43	2.65	3.19	2.66	3.15
Silver	mg/L	0.00002	0.00005	0.00002	< 0.000020	< 0.000020	< 0.000040	< 0.000040	< 0.000040	< 0.000040
Sodium (total)	mg/L	19.46667	620.00000	428.33333	159	219	461	583	560	588
Strontium	mg/L	0.13267	1.25386	1.23150	0.478	0.521	1.32	1.80	1.61	1.66
Sulphur	mg/L	3.17667	130.65714	176.10000	61.8	80.8	187	257	224	246
Thallium	mg/L	0.00001	0.00005	0.00003	< 0.000010	0.000016	< 0.000020	0.000048	0.000040	0.000049
Tin	mg/L	0.00500	0.01286	0.00417	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010	< 0.010
Titanium	mg/L	0.00500	0.07857	0.01898	0.0246	0.0233	0.021	0.017	0.013	0.015
Uranium	mg/L	0.00010	0.01572	0.01762	0.00691	0.00793	0.0196	0.0258	0.0207	0.0248
Vanadium	mg/L	0.00500	0.01424	0.00417	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010	< 0.010
Zinc	mg/L	0.00500	0.01484	0.00417	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010	< 0.010
Zirconium	mg/L	0.00010	0.00418	0.00140	0.00128	0.00102	0.00181	0.00167	0.00132	0.00130
Dissolved Metals										
Aluminum	mg/L	0.00493	0.01373	0.01010	0.0090	0.0092	0.0077	0.0133	0.0142	0.0072
Antimony	mg/L	0.00050	0.00393	0.00337	0.00152	0.00204	0.00354	0.0047	0.0041	0.0043
Arsenic	mg/L	0.00164	0.01495	0.00808	0.00406	0.00620	0.0107	0.0103	0.00777	0.00947
Barium	mg/L	0.02277	0.08343	0.05155	0.0299	0.0402	0.0720	0.0625	0.0525	0.0522
Beryllium	mg/L	0.00010	0.00026	0.00008	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00020	< 0.00020
Bismuth	mg/L	0.00100	0.00257	0.00075	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0020
Boron	mg/L	0.05000	0.98814	0.69733	0.260	0.402	0.842	0.95	0.82	0.91
Cadmium	mg/L	0.00003	0.00006	0.00006	< 0.000010	0.000021	0.000063	0.000088	0.000084	0.000105
Calcium (Dissolved)	mg/L	22.87	119.17	142.93333	55.9	72.7	154	196	189	190
Chromium	mg/L	0.00100	0.00257	0.00075	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0020
Cobalt	mg/L	0.00020	0.00566	0.00925	0.00328	0.00453	0.0105	0.0128	0.0115	0.0129
Copper	mg/L	0.00093	0.00489	0.00381	0.00098	0.00260	0.00437	0.00522	0.00486	0.00483
Iron	mg/L	0.12433	0.03860	0.03185	0.0130	0.0147	0.0084	0.047	0.063	0.045
Lead	mg/L	0.00020	0.00051	0.00015	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00040	< 0.00040
Lithium	mg/L	0.00343	0.04096	0.02097	0.0088	0.0111	0.0283	0.0282	0.0247	0.0247
Magnesium (Dissolved)	mg/L	5.63	89.70	75.30000	32.2	39.6	91.9	97.7	92.2	98.2
Manganese	mg/L	0.00573	0.35836	0.38567	0.194	0.247	0.402	0.492	0.496	0.483
Mercury	mg/L	0.00001	0.00005	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.00150	0.01516	0.01048	0.0043	0.0058	0.0111	0.0158	0.0128	0.0131
Nickel	mg/L	0.00147	0.05586	0.05955	0.0188	0.0297	0.0662	0.0804	0.0785	0.0837
Potassium (Dissolved)	mg/L	1.92	40.19	39.58333	13.5	18.5	38.7	55.6	55.9	55.3
Selenium	mg/L	0.00010	0.00125	0.00138	0.00041	0.00072	0.00133	0.00190	0.00187	0.00206
Silicon	mg/L	0.18300	2.33400	1.89333	0.72	1.10	2.03	2.37	2.52	2.62

MEL-23	Sample date	Annual Average			6/20/2021	7/3/2021	7/17/2021	8/24/2021	9/18/2021	10/9/2021
Parameter	Unit	2019	2020	2021	C1H4548	C1I9117	C1K4962	C1O6549	C1R5233	C1T8399
Silver	mg/L	0.00002	0.00005	0.00002	< 0.000020	< 0.000020	< 0.000020	< 0.000040	< 0.000040	< 0.000040
Sodium (Dissolved)	mg/L	19.77	624.71	414.83333	159	207	449	565	553	556
Strontium	mg/L	0.13233	1.28743	1.24767	0.475	0.591	1.37	1.71	1.58	1.76
Sulphur	mg/L	3.00000	135.80000	174.51667	61.9	83.2	190	235	226	251
Thallium	mg/L	0.00001	0.00003	0.00003	< 0.000010	0.000015	0.000017	0.000038	0.000041	0.000042
Tin	mg/L	0.00500	0.01286	0.00375	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010
Titanium	mg/L	0.00500	0.01286	0.00375	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010
Uranium	mg/L	0.00010	0.01585	0.01767	0.00666	0.00867	0.0197	0.0259	0.0214	0.0237
Vanadium	mg/L	0.00500	0.01286	0.00375	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010
Zinc	mg/L	0.00500	0.01357	0.00375	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010	< 0.010
Zirconium	mg/L	0.00010	0.00200	0.00071	0.00021	0.00025	0.00094	0.00101	0.00084	0.00103

Footnotes:

All 2021 samples have been included in the Annual average.

The Annual average is calculated with half detection limit when it's lower the detection limit.

QAQC MEL-23 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.37	-	7.93	7.92	0.13	-
Turbidity	NTU	0.1	0.1	0.1	7.0	7.6	8.22	0.00
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	828	830	0.24	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	834	851	2.02	-
Total alkalinity, as CaCO3	mg/L	1.0	1.2	1.0	130	130	0.00	18.18
TDS	mg/L	10	10	10	2750	2310	17.39	0.00
TDS, calculated	mg/L	1.0	1.0	-	2700	2700	0.00	-
TSS	mg/L	1	1	1	9	8	11.76	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	1000	950	5.13	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.045	0.046	2.20	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.24	0.24	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	5.3	5.3	0.00	0.00
Sulfate	mg/L	1.0	1	1.0	620	640	3.17	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	15	15	0.00	0.00
Nitrate	mg/L	0.10	0.1	0.10	30.3	30.4	0.33	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.361	0.366	1.38	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	30.6	30.8	0.65	-
Total phosphorus	mg/L	0.020	0.02	0.020	0.046	0.080	53.97	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.162	0.156	3.77	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.0041	0.0041	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00846	0.00841	0.59	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0526	0.0530	0.76	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.002	0.002	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.79	0.79	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000089	0.000084	5.78	0.00
Calcium (total)	mg/L	0.050	0.053	-	178	179	0.56	-
Chromium	mg/L	0.0010	0.001	0.0010	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.0113	0.0115	1.75	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.0049	0.0052	5.94	0.00
Iron	mg/L	0.010	0.01	0.010	0.277	0.289	4.24	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.00048	0.00048	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0240	0.0243	1.24	0.00

QAQC MEL-23 Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0125	0.0128	2.37	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0774	0.0785	1.41	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	54.0	55.9	3.46	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00188	0.00187	0.53	0.00
Silicon	mg/L	0.10	0.1	0.10	2.47	2.52	2.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00004	0.00004	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	534	553	3.50	-
Strontium	mg/L	0.0010	0.001	0.0010	1.56	1.58	1.27	0.00
Sulphur	mg/L	3.0	3	-	221	226	2.24	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.000038	0.000041	7.59	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.0211	0.0214	1.41	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.01	0.01	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.00086	0.00084	2.35	0.00
% Exceedance*							1%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-25	MEL-25	MEL-25	Sample date	Annual Average				6/8/2021	7/21/2021	8/25/2021	10/17/2021
Parameter	MAX GRAB	MAX MEAN	Unit	2018	2019	2020	2021	C1G1330	C1K9406	C1O8191	C1U6613
Field Measured											
Temperature			°C	-	17.88	4.60	6.68	9.3	4	10.4	3
pH	6 - 9.5	6 - 9.5	pH units	-	7.89	7.97	8.05	7.94	7.9	8.21	8.14
Conductivity			uS/cm	-	257.95	265.65	186.48	171	110	252.1	212.8
Dissolved oxygen			mg/L	-	11.15	12.77	10.09	11.67	-	7.06	11.53
Dissolved oxygen			%	-	94.30	104.20	92.37	101.5	-	89.9	85.7
Turbidity			NTU	-	-	-	2.15	-	-	1.67	2.63
Conventional Parameters											
pH	6 - 9.5	6 - 9.5	pH units	8.13	7.90	7.82	7.93	7.46	8.13	8.07	8.05
Turbidity			NTU	-	-	-	1.45	2.5	0.4	-	-
Hardness, as CaCO3			mg/L	109.30	63.10	133.00	96.25	39.6	175	89.8	80.6
Total alkalinity, as CaCO3			mg/L	-	-	-	62.00	29	95	-	-
TDS			mg/L	-	-	-	212.50	110	315	-	-
TSS	30	15	mg/L	33.57	2.50	4.50	1.25	2	2	< 1	< 1
Major Ions											
Chloride			mg/L	-	-	-	28.00	26	30	-	-
Fluoride			mg/L	-	-	-	0.26	< 0.10	0.47	-	-
Sulfate			mg/L	-	-	-	70.50	11	130	-	-
Nutrients and Chlorophyll a											
Ammonia Nitrogen			mg/L	7.02	0.12	0.43	0.04	0.095	< 0.050	< 0.050	< 0.050
Total phosphorus			mg/L	-	-	-	0.01	< 0.010	-	-	-
General Organics											
Total oil and grease	5	5	mg/L	0.60	0.85	0.70	0.25	< 0.50	< 0.50	< 0.50	< 0.50
Total Metals											
Aluminum			mg/L	3.41813	0.09260	0.04990	0.05663	0.0894	0.0406	0.0399	-
Antimony			mg/L	0.00065	0.00050	0.00050	0.00035	< 0.00050	0.00054	< 0.00050	-
Arsenic			mg/L	0.00100	0.00072	0.00195	0.00086	0.00071	0.00135	0.00078	0.00058
Barium			mg/L	0.02928	0.01560	0.02910	0.02533	0.0124	0.0432	0.0204	-
Beryllium			mg/L	0.00020	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	-
Bismuth			mg/L	-	0.00100	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	-
Boron			mg/L	0.20900	0.07800	0.08100	0.05767	< 0.050	0.123	< 0.050	-
Cadmium			mg/L	0.00003	0.00001	0.00001	0.00001	< 0.000010	< 0.000010	< 0.000010	-
Calcium (total)			mg/L	20.25000	15.05500	33.20000	24.47500	10.4	41.8	23.8	21.9
Chromium			mg/L	0.04440	0.00130	0.00100	0.00050	< 0.0010	< 0.0010	< 0.0010	-
Cobalt			mg/L	0.01800	0.00026	0.00020	0.00015	0.00024	< 0.00020	< 0.00020	-
Copper			mg/L	0.00969	0.00297	0.00314	0.00183	0.00167	0.00300	0.00157	0.00108
Iron			mg/L	6.22950	0.13300	0.07500	0.06867	0.147	0.021	0.038	-
Lead	0.1	0.1	mg/L	0.00084	0.00023	0.00049	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L	0.00220	0.00200	0.00200	0.00173	< 0.0020	0.0032	< 0.0020	-
Magnesium (total)			mg/L	13.77000	6.17500	12.20000	8.53250	3.29	17.2	7.35	6.29
Manganese			mg/L	0.10118	0.00250	0.00210	0.00157	0.0037	< 0.0010	< 0.0010	-
Molybdenum			mg/L	0.00980	0.00320	0.00350	0.00260	< 0.0010	0.0054	0.0019	-
Nickel			mg/L	0.01137	0.00390	0.00405	0.00273	0.0021	0.0036	0.0025	0.0027
Potassium (total)			mg/L	13.77250	6.09500	9.00000	6.69500	2.30	13.3	6.26	4.92
Selenium			mg/L	0.00184	0.00035	0.00055	0.00031	0.00012	0.00055	0.00026	-
Silicon			mg/L	22.00000	2.08000	2.18000	1.15000	0.63	1.29	1.53	-
Silver			mg/L	0.00004	0.00002	0.00002	0.00001	< 0.000020	< 0.000020	< 0.000020	-

MEL-25	MEL-25	MEL-25	Sample date	Annual Average				6/8/2021	7/21/2021	8/25/2021	10/17/2021
Parameter	MAX GRAB	MAX MEAN	Unit	2018	2019	2020	2021	C1G1330	C1K9406	C1O8191	C1U6613
Sodium (total)			mg/L	128.87500	27.55000	26.00000	16.09250	13.7	34.7	10.0	5.97
Strontium			mg/L	0.09155	0.09930	0.14200	0.10890	0.0376	0.202	0.0871	-
Sulphur			mg/L	-	13.75000	36.00000	15.62500	3.5	40.3	13.2	5.5
Thallium			mg/L	0.00003	0.00001	0.00001	0.00002	< 0.000010	0.000031	0.000013	-
Tin			mg/L	0.00400	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	-
Titanium			mg/L	0.15068	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	-
Uranium			mg/L	0.00137	0.00066	0.00137	0.00092	< 0.00010	0.00206	0.00064	-
Vanadium			mg/L	0.01350	0.00500	0.00500	0.00250	< 0.0050	< 0.0050	< 0.0050	-
Zinc			mg/L	0.01475	0.00500	0.00500	0.00353	0.0056	< 0.0050	< 0.0050	-
Zirconium			mg/L	-	0.00010	0.00010	0.00005	< 0.00010	< 0.00010	< 0.00010	-
Volatile Organics											
Benzene	0.37	0.37	mg/L	0.00020	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	0.09	0.09	mg/L	0.00023	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	0.002	0.002	mg/L	0.00035	0.00020	0.00020	0.00013	< 0.00020	0.00021	< 0.00020	< 0.00020
Xylenes			mg/L	0.00031	0.00040	0.00040	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes			mg/L	0.00029	0.00040	0.00040	0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene			mg/L	0.00021	0.00020	0.00020	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX			mg/L	0.02500	0.02500	0.02500	0.01250	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)			mg/L	0.02500	0.02500	0.02500	0.01250	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)			mg/L	0.10000	0.10000	0.10000	0.05000	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)			mg/L	0.20000	0.20000	0.20000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)			mg/L	0.20000	0.20000	0.20000	0.10000	< 0.2	< 0.2	< 0.2	< 0.2

Footnotes:

Annual average includes only full kits and excludes samples with field measurements only.

The Annual average is calculated with half detection limit when it's lower the detection limit.

MEL-26	MDMER	MDMER	Sample date	Annual Average			8/12/2021	8/16/2021	8/22/2021	8/29/2021	9/5/2021	9/12/2021
Parameter	MAX GRAB	MONTLHY	Unit	2019	2020	2021	C1N5732	C1N5732	C1O3767	C1P1823	C1Q0255	C1Q8726
Field Measured												
Temperature			°C	9.54	9.63	7.68	8.2	9.2	8.2	14.5	9.3	6.7
pH	6 - 9.5	6 - 9.5	pH units	7.20	7.24	6.98	7.39	7.48	7.45	6.84	6.72	6.85
Total Suspended Solids	30	15	mg/L	-	-	2.60	-	3.2	-	-	2	-
Conductivity			uS/cm	29499.88	28194.67	22194.10	21306	20202	18696	19388	22466	22184
Dissolved oxygen			mg/L	7.19	9.03	11.27	-	-	9.88	9.55	9.42	?
Dissolved oxygen			%	82.82	80.83	104.26	-	-	89.6	98.8	95.1	119
Turbidity			NTU	2.85	1.26	1.47	1.25	1.93	2.15	1.11	1.39	0.82
Conventional Parameters												
pH	6 - 9.5	6 - 9.5	pH units	7.50	7.34	7.24	7.39	7.31	7.38	7.19	7.23	7.35
Dissolved Oxygen			mg/L	9.90	9.82	10.67	10.2	10.2	11.1	11.7	11.0	11.0
Turbidity			NTU	1.21	0.90	0.61	0.5	0.7	0.6	0.6	0.6	0.2
Specific conductivity (for salinity in water)			uS/cm	-	-	21700.00	20000	20000	19000	19000	22000	22000
Specific conductivity			umhos/cm	30363.64	28000.00	21300.00	21000	20000	19000	19000	22000	21000
Hardness, as CaCO3 (T)			mg/L	5245.45	4481.25	3135.00	2930	2930	2530	2510	3050	3190
Hardness, as CaCO3 (D)			mg/L	5366.36	4553.75	3057.00	2900	2880	2530	2730	3020	2860
Total alkalinity, as CaCO3			mg/L	68.27	56.75	34.40	43	34	32	33	34	34
Carbonate, as CaCO3			mg/L	1.13	1.00	0.50	< 1.0	< 1.0	-	< 1.0	-	< 1.0
Bicarbonate, as CaCO3			mg/L	68.18	56.38	34.40	43	34	32	33	34	34
TDS			mg/L	20145.45	18100.00	13630.00	13000	12500	11900	10400	14000	13700
TDS, calculated (for salinity in water)			mg/L	-	-	21500.00	20000	20000	18000	19000	22000	22000
TSS (ALS)	30	15	mg/L	19.55	17.63	1.80	2.6	-	-	< 2.0	-	-
TSS (Maxxam)	30	15	mg/L	-	-	4.21	13	14	< 2.0	7	< 2.0	< 2.0
Total organic carbon			mg/L	17.39	15.00	8.42	7.9	7.8	7.5	7.3	8.8	9.1
Dissolved organic carbon			mg/L	16.83	14.58	7.85	7.3	7.3	7.0	6.8	8.3	8.5
Sodium Adsorption Ratio (salinity in water)			-	-	-	27.60	28	26	26	26	30	29
Major Ions												
Calcium (element - for salinity in water)			mg/L	-	-	618.00	590	530	490	560	760	690
Chloride (for salinity in water)			mg/L	-	-	7160.00	6600	6600	6100	6400	7000	8000
Chloride			mg/L	10863.64	9162.50	6690.00	6600	6400	6000	6200	6400	6300
Cyanide	1	0.5	mg/L	0.056	0.062	0.07	0.070	0.068	0.092	0.073	0.090	0.071
Cyanide (free)			mg/L	0.010	0.023	0.02	0.016	0.015	0.023	0.035	0.013	0.016
Cyanide (WAD)			mg/L	0.010	0.016	0.02	0.023	0.022	0.024	0.040	0.022	0.017
Magnesium (element - for salinity in water)			mg/L	-	-	405.00	350	350	320	370	410	410
Potassium (element - for salinity in water)			mg/L	-	-	148.00	140	130	130	150	160	160
Silica			mg/L	6.04	3.74	4.44	4.4	8.0	5.9	5.0	4.8	4.9
Sodium (element - for salinity in water)			mg/L	-	-	3590.00	3400	3200	3000	3200	4100	3900
Sulfate			mg/L	1059.09	1075.00	846.00	800	720	720	790	930	870
Sulphate (for salinity in water)			mg/L	-	-	920.00	830	820	810	830	960	990
Nutrients and Chlorophyll a												
Ammonia Nitrogen			mg/L	13.09	33.38	31.30	37	35	32	36	35	29
Unionized Ammonia, calculated internally	1	0.5	mg/L	-	-	0.02	-	-	-	-	-	0.029
Nitrate			mg/L	56.94	53.63	43.92	47.1	45.5	44.8	45.4	47.8	43.5
Nitrite			mg/L	0.53	1.10	1.01	1.30	1.22	1.20	1.11	1.01	0.830
Nitrate + nitrite			mg/L	57.47	54.73	44.95	48.4	46.8	46.0	46.5	48.9	44.3
Total Kjeldahl nitrogen			mg/L	23.39	38.75	34.90	43	43	35	41	35	31
Total phosphorus			mg/L	0.09	0.06	0.03	< 0.020	< 0.020	0.022	0.033	< 0.020	0.057
Orthophosphate (P)			mg/L	0.01	0.01	0.01	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals												
Aluminum			mg/L	0.24391	0.44525	0.39410	0.365	0.497	0.338	0.220	0.350	0.297
Antimony			mg/L	0.01417	0.00688	0.00287	< 0.0050	< 0.0050	< 0.0050	0.00372	< 0.0050	< 0.0050
Arsenic	0.6	0.3	mg/L	0.01545	0.00928	0.00626	0.0081	0.0081	0.0062	0.00506	0.0068	0.0062
Barium			mg/L	0.22355	0.18850	0.10880	0.105	0.103	0.101	0.101	0.109	0.118
Beryllium			mg/L	0.00282	0.00138	0.00051	< 0.0010	< 0.0010	< 0.0010	< 0.00010	< 0.0010	< 0.0010

MEL-26	MDMER	MDMER	Sample date	Annual Average			8/12/2021	8/16/2021	8/22/2021	8/29/2021	9/5/2021	9/12/2021
Parameter	MAX GRAB	MONTLHY	Unit	2019	2020	2021	C1N5732	C1N5732	C1O3767	C1P1823	C1Q0255	C1Q8726
Bismuth			mg/L	0.02818	0.01375	0.00505	< 0.010	< 0.010	< 0.010	< 0.0010	< 0.010	< 0.010
Boron			mg/L	1.50027	0.97150	0.83460	0.86	0.92	0.69	0.656	0.96	0.72
Cadmium			mg/L	0.00031	0.00016	0.00006	< 0.00010	< 0.00010	< 0.00010	0.000081	< 0.00010	< 0.00010
Calcium (total)			mg/L	1068.2	895.6	605.60000	579	531	518	504	580	669
Chromium			mg/L	0.02818	0.01375	0.00505	< 0.010	< 0.010	< 0.010	< 0.0010	< 0.010	< 0.010
Cobalt			mg/L	0.00716	0.00629	0.00375	0.0036	0.0036	0.0035	0.00364	0.0037	0.0033
Copper	0.6	0.3	mg/L	0.01471	0.00710	0.00279	< 0.0050	< 0.0050	< 0.0050	0.00293	< 0.0050	< 0.0050
Iron			mg/L	0.28509	0.27500	0.05260	< 0.10	< 0.10	< 0.10	0.026	< 0.10	< 0.10
Lead	0.2	0.1	mg/L	0.00583	0.00356	0.00104	< 0.0020	< 0.0020	< 0.0020	0.00040	< 0.0020	< 0.0020
Lithium			mg/L	0.53845	0.34025	0.15913	0.118	0.134	0.102	0.0993	0.143	0.133
Magnesium (total)			mg/L	626.36364	545.50000	394.20000	361	389	300	305	388	370
Manganese			mg/L	0.16036	0.27838	0.15070	0.134	0.144	0.139	0.141	0.122	0.103
Mercury			mg/L	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.03064	0.01838	0.02218	0.027	0.025	0.024	0.0228	0.025	0.024
Nickel	1	0.5	mg/L	0.04073	0.03700	0.02645	0.024	0.023	0.026	0.0285	0.027	0.023
Potassium (total)			mg/L	187.45455	183.62500	147.50000	149	143	127	135	149	152
Selenium			mg/L	0.00291	0.00164	0.00175	0.0020	0.0018	0.0018	0.00221	0.0019	0.0018
Silicon			mg/L	3.43909	1.86125	0.83700	1.1	1.1	1.1	1.07	1.0	< 1.0
Silver			mg/L	0.00056	0.00031	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Sodium (total)			mg/L	4826.36364	4317.50000	3406.00000	3320	3500	2820	2780	3410	3360
Strontium			mg/L	25.13636	20.98750	13.07000	11.8	11.0	10.5	11.3	12.2	13.3
Sulphur			mg/L	430.72727	406.12500	332.00000	310	310	273	271	342	340
Thallium			mg/L	0.00029	0.00016	0.00006	< 0.00010	< 0.00010	< 0.00010	0.000076	< 0.00010	< 0.00010
Tin			mg/L	0.14091	0.06875	0.02525	< 0.050	< 0.050	< 0.050	< 0.0050	< 0.050	< 0.050
Titanium			mg/L	0.14091	0.06875	0.02525	< 0.050	< 0.050	< 0.050	< 0.0050	< 0.050	< 0.050
Uranium			mg/L	0.00437	0.00358	0.00433	0.0047	0.0043	0.0035	0.00300	0.0046	0.0047
Vanadium			mg/L	0.14091	0.06875	0.02525	< 0.050	< 0.050	< 0.050	< 0.0050	< 0.050	< 0.050
Zinc	1	0.5	mg/L	0.14091	0.06875	0.02458	< 0.050	< 0.050	< 0.050	0.0083	< 0.050	< 0.050
Zirconium			mg/L	0.00282	0.00138	0.00051	< 0.0010	< 0.0010	< 0.0010	< 0.00010	< 0.0010	< 0.0010
Dissolved Metals												
Aluminum			mg/L	0.14664	0.12275	0.09720	0.141	0.167	0.091	0.083	0.067	0.067
Antimony			mg/L	0.01182	0.00750	0.00261	< 0.0050	< 0.0050	< 0.0050	0.0036	< 0.0050	< 0.0050
Arsenic	0.6	0.3	mg/L	0.01520	0.00823	0.00408	0.0057	0.0051	0.0042	0.00449	0.0044	0.0040
Barium			mg/L	0.22645	0.18988	0.10630	0.104	0.105	0.098	0.106	0.110	0.108
Beryllium			mg/L	0.00236	0.00150	0.00048	< 0.0010	< 0.0010	< 0.0010	< 0.00050	< 0.0010	< 0.0010
Bismuth			mg/L	0.02364	0.01500	0.00475	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.010	< 0.010
Boron			mg/L	1.29973	0.99588	0.77800	0.84	0.85	0.71	0.72	0.78	0.74
Cadmium			mg/L	0.00026	0.00017	0.00005	< 0.00010	< 0.00010	< 0.00010	0.000052	< 0.00010	< 0.00010
Calcium (Dissolved)			mg/L	1094.64	898.75	591.40000	547	542	497	550	604	583
Chromium			mg/L	0.02364	0.01500	0.00475	< 0.010	< 0.010	< 0.010	< 0.0050	< 0.010	< 0.010
Cobalt			mg/L	0.00622	0.00620	0.00362	0.0036	0.0038	0.0036	0.0037	0.0035	0.0030
Copper	0.6	0.3	mg/L	0.00611	0.00428	0.00278	0.0030	0.0031	0.0031	0.0031	0.0024	0.0024
Iron			mg/L	0.11818	0.07500	0.02375	< 0.050	< 0.050	< 0.050	< 0.025	< 0.050	< 0.050
Lead	0.2	0.1	mg/L	0.00481	0.00354	0.00095	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.0020	< 0.0020
Lithium			mg/L	0.54709	0.34313	0.14820	0.108	0.110	0.098	0.103	0.121	0.130
Magnesium (Dissolved)			mg/L	640.00	560.25	383.90000	374	371	313	329	368	341
Manganese			mg/L	0.14845	0.28388	0.14640	0.137	0.146	0.140	0.149	0.119	0.090
Mercury			mg/L	0.00001	0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.02555	0.02075	0.02215	0.026	0.026	0.023	0.0305	0.024	0.020
Nickel	1	0.5	mg/L	0.03655	0.03688	0.02561	0.025	0.024	0.026	0.0291	0.026	0.021
Potassium (Dissolved)			mg/L	190.55	185.25	143.70000	148	146	130	141	150	139
Selenium			mg/L	0.00239	0.00163	0.00169	0.0019	0.0019	0.0019	0.00200	0.0018	0.0017
Silicon			mg/L	2.85364	1.72250	0.67400	1.0	1.1	< 1.0	1.14	< 1.0	< 1.0
Silver			mg/L	0.00047	0.00030	0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00010	< 0.00020	< 0.00020

QAQC MEL-26 Parameter	Sample date		8/12/2021						8/16/2021				
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)
Conventional Parameters													
pH	pH units		-	-	-	-	-	-	5.90	-	7.44	7.31	1.76
Turbidity	NTU	0.1	-	-	-	-	-	-	0.1	0.1	0.8	0.7	13.33
Specific conductivity (for salinity in water)	uS/cm	2.0	-	-	-	-	-	-	2	2.0	20000	20000	0.00
Specific conductivity	umhos/cm	1.0	-	-	-	-	-	-	47	1.0	20000	20000	0.00
Hardness, as CaCO3	mg/L	0.50	-	-	-	-	-	-	0.5	-	2980	2930	1.69
Hardness, as CaCO3 (D)	mg/L	0.50	-	-	-	-	-	-	0.5	-	2710	2880	6.08
Total alkalinity, as CaCO3	mg/L	1.0	-	-	-	-	-	-	1	1.0	37	34	8.45
Carbonate, as CaCO3	mg/L	1.0	-	-	-	-	-	-	1	-	1	1	0.00
Bicarbonate, as CaCO3	mg/L	1.0	-	-	-	-	-	-	1	-	37	34	8.45
TDS	mg/L	10	-	-	-	-	-	-	10	10	12400	12500	0.80
TDS, calculated (for salinity in water)	mg/L	10	-	-	-	-	-	-	10	-	20000	20000	0.00
TSS (ALS)	mg/L	2.0	2.0	2.0	2.9	2.6	10.91	0.00	2	2.0	2	2	0.00
TSS (Maxxam)	mg/L	1	-	-	-	-	-	-	1	1	12	14	15.38
Total organic carbon	mg/L	0.40	-	-	-	-	-	-	0.4	0.40	7.9	7.8	1.27
Dissolved organic carbon	mg/L	0.40	-	-	-	-	-	-	0.4	0.40	7.3	7.3	0.00
Sodium Adsorption Ratio (salinity in water)	-	0.10	-	-	-	-	-	-	NC	-	27	26	3.77
Major Ions													
Calcium (element - for salinity in water)	mg/L	0.30	-	-	-	-	-	-	0.3	-	540	530	1.87
Chloride (for salinity in water)	mg/L	1.0	-	-	-	-	-	-	1	1.0	6700	6600	1.50
Chloride	mg/L	1.0	-	-	-	-	-	-	12	1.0	6400	6400	0.00
Cyanide	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.056	0.068	19.35
Cyanide (free)	mg/L	1.0	-	-	-	-	-	-	0.0034	1.0	0.017	0.015	12.50
Cyanide (WAD)	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.023	0.022	4.44
Magnesium (element - for salinity in water)	mg/L	0.20	-	-	-	-	-	-	0.2	-	340	350	2.90
Potassium (element - for salinity in water)	mg/L	0.30	-	-	-	-	-	-	0.3	-	130	130	0.00
Silica	mg/L	0.050	-	-	-	-	-	-	0.05	0.050	5.4	8.0	38.81
Sodium (element - for salinity in water)	mg/L	0.50	-	-	-	-	-	-	0.5	-	3300	3200	3.08
Sulfate	mg/L	1.0	-	-	-	-	-	-	1.6	1.0	780	720	8.00
Sulphate (for salinity in water)	mg/L	1.0	-	-	-	-	-	-	1	1.0	820	820	0.00
Nutrients and Chlorophyll a													
Ammonia Nitrogen	mg/L	0.050	-	-	-	-	-	-	0.094	0.050	35	35	0.00
Nitrate	mg/L	0.10	-	-	-	-	-	-	0.1	0.10	44.2	45.5	2.90
Nitrite	mg/L	0.010	-	-	-	-	-	-	0.01	0.010	1.24	1.22	1.63
Nitrate + nitrite	mg/L	0.10	-	-	-	-	-	-	0.1	-	45.4	46.8	3.04
Total Kjeldahl nitrogen	mg/L	0.10	-	-	-	-	-	-	0.22	0.10	40	43	7.23
Total phosphorus	mg/L	0.020	-	-	-	-	-	-	0.02	0.020	0.02	0.02	0.00
Orthophosphate (P)	mg/L	0.010	-	-	-	-	-	-	0.01	0.010	0.01	0.01	0.00
Total Metals													
Aluminum	mg/L	0.0030	-	-	-	-	-	-	0.003	0.0030	0.498	0.497	0.20
Antimony	mg/L	0.00050	-	-	-	-	-	-	0.0005	0.00050	0.005	0.005	0.00
Arsenic	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.0085	0.0081	4.82
Barium	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.108	0.103	4.74
Beryllium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.001	0.001	0.00
Bismuth	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.01	0.01	0.00
Boron	mg/L	0.050	-	-	-	-	-	-	0.05	0.050	0.97	0.92	5.29
Cadmium	mg/L	0.000010	-	-	-	-	-	-	0.00001	0.000010	0.0001	0.0001	0.00
Calcium (total)	mg/L	0.050	-	-	-	-	-	-	0.05	-	551	531	3.70
Chromium	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.01	0.01	0.00
Cobalt	mg/L	0.00020	-	-	-	-	-	-	0.0002	0.00020	0.0037	0.0036	2.74
Copper	mg/L	0.00050	-	-	-	-	-	-	0.0005	0.00050	0.005	0.005	0.00
Iron	mg/L	0.010	-	-	-	-	-	-	0.01	0.010	0.1	0.1	0.00
Lead	mg/L	0.00020	-	-	-	-	-	-	0.0002	0.00020	0.002	0.002	0.00
Lithium	mg/L	0.0020	-	-	-	-	-	-	0.002	0.0020	0.141	0.134	5.09
Magnesium (total)	mg/L	0.050	-	-	-	-	-	-	0.05	-	390	389	0.26
Manganese	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.148	0.144	2.74
Mercury	mg/L	0.00001	-	-	-	-	-	-	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.027	0.025	7.69
Nickel	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.023	0.023	0.00
Potassium (total)	mg/L	0.050	-	-	-	-	-	-	0.05	-	145	143	1.39

QAQC MEL-26 Parameter	Sample date		8/12/2021						8/16/2021				
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)
Selenium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.0020	0.0018	10.53
Silicon	mg/L	0.10	-	-	-	-	-	-	0.1	0.10	1.1	1.1	0.00
Silver	mg/L	0.000020	-	-	-	-	-	-	0.00002	0.000020	0.0002	0.0002	0.00
Sodium (total)	mg/L	0.050	-	-	-	-	-	-	0.05	-	3470	3500	0.86
Strontium	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	11.7	11.0	6.17
Sulphur	mg/L	3.0	-	-	-	-	-	-	3	-	318	310	2.55
Thallium	mg/L	0.000010	-	-	-	-	-	-	0.00001	0.000010	0.0001	0.0001	0.00
Tin	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Titanium	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Uranium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.0043	0.0043	0.00
Vanadium	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Zinc	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Zirconium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.001	0.001	0.00
Dissolved Metals													
Aluminum	mg/L	0.0030	-	-	-	-	-	-	0.003	0.0030	0.149	0.167	11.39
Antimony	mg/L	0.00050	-	-	-	-	-	-	0.0005	0.00050	0.005	0.005	0.00
Arsenic	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.0049	0.0051	4.00
Barium	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.099	0.105	5.88
Beryllium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.001	0.001	0.00
Bismuth	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.01	0.01	0.00
Boron	mg/L	0.050	-	-	-	-	-	-	0.05	0.050	0.80	0.85	6.06
Cadmium	mg/L	0.000010	-	-	-	-	-	-	0.00001	0.000010	0.0001	0.0001	0.00
Calcium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-	506	542	6.87
Chromium	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.01	0.01	0.00
Cobalt	mg/L	0.00020	-	-	-	-	-	-	0.0002	0.00020	0.0035	0.0038	8.22
Copper	mg/L	0.00020	-	-	-	-	-	-	0.0002	0.00020	0.0028	0.0031	10.17
Iron	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Lead	mg/L	0.00020	-	-	-	-	-	-	0.0002	0.00020	0.002	0.002	0.00
Lithium	mg/L	0.0020	-	-	-	-	-	-	0.002	0.0020	0.108	0.110	1.83
Magnesium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-	352	371	5.26
Manganese	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.138	0.146	5.63
Mercury	mg/L	0.00001	-	-	-	-	-	-	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.024	0.026	8.00
Nickel	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	0.023	0.024	4.26
Potassium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-	135	146	7.83
Selenium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.0018	0.0019	5.41
Silicon	mg/L	0.10	-	-	-	-	-	-	0.1	0.10	1	1.1	9.52
Silver	mg/L	0.000020	-	-	-	-	-	-	0.00002	0.000020	0.0002	0.0002	0.00
Sodium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.074	-	3120	3310	5.91
Strontium	mg/L	0.0010	-	-	-	-	-	-	0.001	0.0010	10.4	11.2	7.41
Sulphur	mg/L	3.0	-	-	-	-	-	-	3	-	286	312	8.70
Thallium	mg/L	0.000010	-	-	-	-	-	-	0.00001	0.000010	0.0001	0.0001	0.00
Tin	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Titanium	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Uranium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.0039	0.0042	7.41
Vanadium	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Zinc	mg/L	0.0050	-	-	-	-	-	-	0.005	0.0050	0.05	0.05	0.00
Zirconium	mg/L	0.00010	-	-	-	-	-	-	0.0001	0.00010	0.001	0.001	0.00
Radionuclides													
Radium-226	Bq/l	0.0050	-	-	-	-	-	-	0.005	0.0050	0.080	0.050	46.15
% Exceedance*									0%	0%			2%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

italic values correspond to a RPD higher than 20% and for which one of the result is within 10x the MDL and the other one exceeds 10x the MDL.

QAQC MEL-26 Parameter	Sample date		8/29/2021				9/5/2021						
	Unit	MDL	RPD (FB/LB)	Duplicate	Original	RPD (FD/N)	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)	Field Blank
Selenium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Silicon	mg/L	0.10	0.00	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.000020	0.00	-	-	-	-	-	-	-	-	-	-
Sodium (total)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Strontium	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Sulphur	mg/L	3.0	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	0.000010	0.00	-	-	-	-	-	-	-	-	-	-
Tin	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Titanium	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Uranium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Zirconium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Dissolved Metals													
Aluminum	mg/L	0.0030	0.00	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00050	0.00	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Bismuth	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Boron	mg/L	0.050	0.00	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.000010	0.00	-	-	-	-	-	-	-	-	-	-
Calcium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.00020	0.00	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	0.00020	0.00	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.00020	0.00	-	-	-	-	-	-	-	-	-	-
Lithium	mg/L	0.0020	0.00	-	-	-	-	-	-	-	-	-	-
Magnesium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.00001	0.00	-	-	-	-	-	-	-	-	-	-
Molybdenum	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Potassium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Silicon	mg/L	0.10	0.00	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.000020	0.00	-	-	-	-	-	-	-	-	-	-
Sodium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Strontium	mg/L	0.0010	0.00	-	-	-	-	-	-	-	-	-	-
Sulphur	mg/L	3.0	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	0.000010	0.00	-	-	-	-	-	-	-	-	-	-
Tin	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Titanium	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Uranium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
Zirconium	mg/L	0.00010	0.00	-	-	-	-	-	-	-	-	-	-
Radionuclides													
Radium-226	Bq/l	0.0050	0.00	-	-	-	-	-	-	-	-	-	-
% Exceedance*			0%			0%					0%	0%	

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling

Bold values correspond to a RPD higher than 20% and for which concentration

Grey shaded cells correspond to a RPD higher than 20% and for which concentration

italic values correspond to a RPD higher than 20% and for which one of the parameters

QAQC MEL-26 Parameter	Sample date		9/12/2021					9/19/2021			9/26/2021		
	Unit	MDL	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)	Duplicate	Original	RPD (FD/N)	Duplicate	Original	RPD (FD/N)
Selenium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Silicon	mg/L	0.10	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.000020	-	-	-	-	-	-	-	-	-	-	-
Sodium (total)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Strontium	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Sulphur	mg/L	3.0	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	0.000010	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Titanium	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Uranium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Zirconium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Dissolved Metals													
Aluminum	mg/L	0.0030	-	-	-	-	-	-	-	-	-	-	-
Antimony	mg/L	0.00050	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Barium	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Beryllium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Bismuth	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Boron	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Cadmium	mg/L	0.000010	-	-	-	-	-	-	-	-	-	-	-
Calcium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Cobalt	mg/L	0.00020	-	-	-	-	-	-	-	-	-	-	-
Copper	mg/L	0.00020	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	0.00020	-	-	-	-	-	-	-	-	-	-	-
Lithium	mg/L	0.0020	-	-	-	-	-	-	-	-	-	-	-
Magnesium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Mercury	mg/L	0.00001	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Nickel	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Potassium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Silicon	mg/L	0.10	-	-	-	-	-	-	-	-	-	-	-
Silver	mg/L	0.000020	-	-	-	-	-	-	-	-	-	-	-
Sodium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	-	-	-	-	-
Strontium	mg/L	0.0010	-	-	-	-	-	-	-	-	-	-	-
Sulphur	mg/L	3.0	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	0.000010	-	-	-	-	-	-	-	-	-	-	-
Tin	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Titanium	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Uranium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Vanadium	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Zinc	mg/L	0.0050	-	-	-	-	-	-	-	-	-	-	-
Zirconium	mg/L	0.00010	-	-	-	-	-	-	-	-	-	-	-
Radionuclides													
Radium-226	Bq/l	0.0050	-	-	-	-	-	-	-	-	-	-	-
% Exceedance*						0%	0%			0%			0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling

Bold values correspond to a RPD higher than 20% and for which concentration

Grey shaded cells correspond to a RPD higher than 20% and for which concentration

italic values correspond to a RPD higher than 20% and for which one of the parameters

QAQC MEL-26 Parameter	Sample date		10/3/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		-	-	-	-	-	-
Turbidity	NTU	0.1	-	-	-	-	-	-
Specific conductivity (for salinity in water)	uS/cm	2.0	-	-	-	-	-	-
Specific conductivity	umhos/cm	1.0	-	-	-	-	-	-
Hardness, as CaCO3	mg/L	0.50	-	-	-	-	-	-
Hardness, as CaCO3 (D)	mg/L	0.50	-	-	-	-	-	-
Total alkalinity, as CaCO3	mg/L	1.0	-	-	-	-	-	-
Carbonate, as CaCO3	mg/L	1.0	-	-	-	-	-	-
Bicarbonate, as CaCO3	mg/L	1.0	-	-	-	-	-	-
TDS	mg/L	10	-	-	-	-	-	-
TDS, calculated (for salinity in water)	mg/L	10	-	-	-	-	-	-
TSS (ALS)	mg/L	2.0	2	2	3.1	3.1	0.00	0.00
TSS (Maxxam)	mg/L	1	-	-	-	-	-	-
Total organic carbon	mg/L	0.40	-	-	-	-	-	-
Dissolved organic carbon	mg/L	0.40	-	-	-	-	-	-
Sodium Adsorption Ratio (salinity in water)	-	0.10	-	-	-	-	-	-
Major Ions								
Calcium (element - for salinity in water)	mg/L	0.30	-	-	-	-	-	-
Chloride (for salinity in water)	mg/L	1.0	-	-	-	-	-	-
Chloride	mg/L	1.0	-	-	-	-	-	-
Cyanide	mg/L	0.0050	-	-	-	-	-	-
Cyanide (free)	mg/L	1.0	-	-	-	-	-	-
Cyanide (WAD)	mg/L	0.0010	-	-	-	-	-	-
Magnesium (element - for salinity in water)	mg/L	0.20	-	-	-	-	-	-
Potassium (element - for salinity in water)	mg/L	0.30	-	-	-	-	-	-
Silica	mg/L	0.050	-	-	-	-	-	-
Sodium (element - for salinity in water)	mg/L	0.50	-	-	-	-	-	-
Sulfate	mg/L	1.0	-	-	-	-	-	-
Sulphate (for salinity in water)	mg/L	1.0	-	-	-	-	-	-
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	-	-	-	-	-	-
Nitrate	mg/L	0.10	-	-	-	-	-	-
Nitrite	mg/L	0.010	-	-	-	-	-	-
Nitrate + nitrite	mg/L	0.10	-	-	-	-	-	-
Total Kjeldahl nitrogen	mg/L	0.10	-	-	-	-	-	-
Total phosphorus	mg/L	0.020	-	-	-	-	-	-
Orthophosphate (P)	mg/L	0.010	-	-	-	-	-	-
Total Metals								
Aluminum	mg/L	0.0030	-	-	-	-	-	-
Antimony	mg/L	0.00050	-	-	-	-	-	-
Arsenic	mg/L	0.00010	-	-	-	-	-	-
Barium	mg/L	0.0010	-	-	-	-	-	-
Beryllium	mg/L	0.00010	-	-	-	-	-	-
Bismuth	mg/L	0.0010	-	-	-	-	-	-
Boron	mg/L	0.050	-	-	-	-	-	-
Cadmium	mg/L	0.000010	-	-	-	-	-	-
Calcium (total)	mg/L	0.050	-	-	-	-	-	-
Chromium	mg/L	0.0010	-	-	-	-	-	-
Cobalt	mg/L	0.00020	-	-	-	-	-	-
Copper	mg/L	0.00050	-	-	-	-	-	-
Iron	mg/L	0.010	-	-	-	-	-	-
Lead	mg/L	0.00020	-	-	-	-	-	-
Lithium	mg/L	0.0020	-	-	-	-	-	-
Magnesium (total)	mg/L	0.050	-	-	-	-	-	-
Manganese	mg/L	0.0010	-	-	-	-	-	-
Mercury	mg/L	0.00001	-	-	-	-	-	-
Molybdenum	mg/L	0.0010	-	-	-	-	-	-
Nickel	mg/L	0.0010	-	-	-	-	-	-
Potassium (total)	mg/L	0.050	-	-	-	-	-	-

QAQC MEL-26 Parameter	Sample date		10/3/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Selenium	mg/L	0.00010	-	-	-	-	-	-
Silicon	mg/L	0.10	-	-	-	-	-	-
Silver	mg/L	0.000020	-	-	-	-	-	-
Sodium (total)	mg/L	0.050	-	-	-	-	-	-
Strontium	mg/L	0.0010	-	-	-	-	-	-
Sulphur	mg/L	3.0	-	-	-	-	-	-
Thallium	mg/L	0.000010	-	-	-	-	-	-
Tin	mg/L	0.0050	-	-	-	-	-	-
Titanium	mg/L	0.0050	-	-	-	-	-	-
Uranium	mg/L	0.00010	-	-	-	-	-	-
Vanadium	mg/L	0.0050	-	-	-	-	-	-
Zinc	mg/L	0.0050	-	-	-	-	-	-
Zirconium	mg/L	0.00010	-	-	-	-	-	-
Dissolved Metals								
Aluminum	mg/L	0.0030	-	-	-	-	-	-
Antimony	mg/L	0.00050	-	-	-	-	-	-
Arsenic	mg/L	0.00010	-	-	-	-	-	-
Barium	mg/L	0.0010	-	-	-	-	-	-
Beryllium	mg/L	0.00010	-	-	-	-	-	-
Bismuth	mg/L	0.0010	-	-	-	-	-	-
Boron	mg/L	0.050	-	-	-	-	-	-
Cadmium	mg/L	0.000010	-	-	-	-	-	-
Calcium (Dissolved)	mg/L	0.050	-	-	-	-	-	-
Chromium	mg/L	0.0010	-	-	-	-	-	-
Cobalt	mg/L	0.00020	-	-	-	-	-	-
Copper	mg/L	0.00020	-	-	-	-	-	-
Iron	mg/L	0.0050	-	-	-	-	-	-
Lead	mg/L	0.00020	-	-	-	-	-	-
Lithium	mg/L	0.0020	-	-	-	-	-	-
Magnesium (Dissolved)	mg/L	0.050	-	-	-	-	-	-
Manganese	mg/L	0.0010	-	-	-	-	-	-
Mercury	mg/L	0.00001	-	-	-	-	-	-
Molybdenum	mg/L	0.0010	-	-	-	-	-	-
Nickel	mg/L	0.0010	-	-	-	-	-	-
Potassium (Dissolved)	mg/L	0.050	-	-	-	-	-	-
Selenium	mg/L	0.00010	-	-	-	-	-	-
Silicon	mg/L	0.10	-	-	-	-	-	-
Silver	mg/L	0.000020	-	-	-	-	-	-
Sodium (Dissolved)	mg/L	0.050	-	-	-	-	-	-
Strontium	mg/L	0.0010	-	-	-	-	-	-
Sulphur	mg/L	3.0	-	-	-	-	-	-
Thallium	mg/L	0.000010	-	-	-	-	-	-
Tin	mg/L	0.0050	-	-	-	-	-	-
Titanium	mg/L	0.0050	-	-	-	-	-	-
Uranium	mg/L	0.00010	-	-	-	-	-	-
Vanadium	mg/L	0.0050	-	-	-	-	-	-
Zinc	mg/L	0.0050	-	-	-	-	-	-
Zirconium	mg/L	0.00010	-	-	-	-	-	-
Radionuclides								
Radium-226	Bq/l	0.0050	-	-	-	-	-	-
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling

Bold values correspond to a RPD higher than 20% and for which concentration

Grey shaded cells correspond to a RPD higher than 20% and for which concentration

italic values correspond to a RPD higher than 20% and for which one of the parameters

MEL-SR1	MEL-SR	MEL-SR	Sample date	Annual	6/17/2021	7/3/2021	7/7/2021	7/12/2021	7/17/2021	7/23/2021	7/30/2021	8/2/2021	8/8/2021	8/12/2021	8/31/2021	9/3/2021	9/10/2021	9/11/2021	
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1H4395	C1H9130	C1H4802	C1K1355	C1K4953	C1L4410	C1I9425	C1M1172	C1M7891	C1N7138	C1P4412	C1O0259	C1O8877	C1O8851	
Field Measured																			
Temperature			°C		6.38	7.7	8.1	10.7	8.2	9.8	6.6	7.9	-	8.9	7	7.5	7.1	8.3	
pH	6.0-9.5	6.0-9.5	pH units		7.99	7.82	7.84	7.9	7.75	7.9	7.85	7.92	-	7.83	7.81	7.77	8.23	8.06	
Conductivity			uS/cm		813.7	1235	1363	1585	1540	792	1353	1229	-	1346	1145	1066	1144	1137	
Dissolved oxygen			mg/L		11.78	10.1	78.6	9.6	14.06	10.31	10.47	90.9	-	12.49	10	11.07	?	11.73	
Dissolved oxygen			%		95.8	85.5	9.26	88	119.9	88	85.8	-	-	109.1	82.8	92.6	97	100.7	
Turbidity			NTU		2.95	2.34	1.02	1.5	2.23	9.84	8.47	2.83	-	640	2.52	37.3	?	27.9	
Conventional Parameters																			
pH	6.0-9.5	6.0-9.5	pH units		8.12	8.07	7.97	8.09	8.05	8.12	8.10	8.20	8.12	8.09	8.21	8.13	8.22	8.21	
Turbidity			NTU		< 0.1	0.8	0.4	0.3	0.2	5.0	6.5	0.3	0.2	130	0.6	33	0.3	36	
Hardness, as CaCO3 (T)			mg/L		268	425	444	529	478	365	464	427	467	469	397	360	418	379	
Hardness, as CaCO3 (D)			mg/L		-	-	-	-	-	-	-	-	-	399	416	366	409	387	
Total alkalinity, as CaCO3			mg/L		150	170	200	200	160	130	200	200	210	150	220	180	210	180	
TDS			mg/L		430	720	775	935	815	645	905	620	890	770	620	700	630	620	
TDS, calculated			mg/L		-	-	-	-	-	-	770	690	770	680	650	590	650	620	
TSS	100	50	mg/L	19.96	1	1	1	2	1	5	10	1	1	300	2	29	2	26	
Major Ions																			
Chloride			mg/L		120	200	210	260	220	140	210	160	210	200	130	140	130	140	
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	
Fluoride			mg/L		0.10	0.11	0.19	0.11	0.12	0.14	0.13	0.12	0.12	0.11	0.14	0.13	0.14	0.13	
Silica			mg/L		-	-	-	-	-	-	3.0	2.9	2.9	3.0	2.2	2.2	1.7	2.2	
Sulfate			mg/L		86	130	150	160	220	190	170	170	160	150	150	130	150	150	
Nutrients and Chlorophyll a																			
Ammonia Nitrogen			mg/L		< 0.050	0.079	< 0.050	< 0.050	< 0.050	0.054	0.066	0.095	0.19	0.21	0.065	< 0.050	< 0.050	< 0.050	
Nitrate			mg/L		0.12	0.21	0.12	0.18	0.19	0.22	0.17	0.14	0.17	0.25	0.18	0.13	0.14	0.17	
Nitrite			mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.015	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
Nitrate + nitrite			mg/L		0.12	0.21	0.12	0.18	0.19	0.22	0.17	0.14	0.26	0.27	0.18	0.13	0.14	0.17	
Total phosphorus			mg/L		< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.21	0.058	0.035	< 0.020	0.051	
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
General Organics																			
Total oil and grease			mg/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Total Metals																			
Aluminum			mg/L		0.0480	0.0460	0.0131	0.0144	0.0258	0.165	0.198	0.0140	0.0223	10.8	0.0314	1.17	0.0152	0.687	
Antimony			mg/L		0.00072	0.00052	< 0.00050	< 0.00050	0.00068	0.00059	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	
Arsenic			mg/L		0.00193	0.00243	0.00235	0.00260	0.00225	0.00253	0.00261	0.00313	0.0156	0.00301	0.00359	0.00273	0.00305	0.00305	
Barium			mg/L		0.0391	0.0535	0.0606	0.0730	0.0641	0.0513	0.0619	0.0522	0.0633	0.163	0.0495	0.0599	0.0499	0.0540	
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00012	< 0.00010	< 0.00010	< 0.00010	< 0.00010	
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
Boron			mg/L		0.060	0.077	0.067	0.098	0.105	0.087	0.128	0.078	0.091	0.147	0.068	0.102	0.054	0.068	
Cadmium			mg/L		< 0.000010	0.000026	0.000019	0.000025	0.000018	0.000016	0.000016	0.000014	0.000025	0.000066	0.000015	< 0.000010	0.000013	0.000012	
Calcium (total)			mg/L		83.4	130	138	165	151	115	148	135	146	139	123	113	132	119	
Chromium			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0012	0.0013	< 0.0010	0.0062	< 0.0010	0.0067	< 0.0010	0.0043	0.0043	
Cobalt			mg/L		0.00040	0.00050	0.00054	0.00062	0.00042	0.00070	0.00068	0.00041	0.00064	0.0113	0.00052	0.00151	0.00038	0.00112	
Copper			mg/L		0.00333	0.00391	0.00362	0.00346	0.00392	0.00475	0.00420	0.00388	0.00390	0.0318	0.00414	0.00602	0.00342	0.00447	
Iron			mg/L		0.109	0.110	0.098	0.106	0.077	0.332	0.382	0.057	0.082	17.9	0.112	1.86	0.056	1.23	
Lead			mg/L		< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00026	0.00022	< 0.00020	< 0.00020	0.0102	< 0.00020	0.00091	< 0.00020	0.00042	
Lithium			mg/L		0.0206	0.0355	0.0331	0.0524	0.0592	0.0306	0.0757	0.0263	0.0434	0.100	0.0157	0.0479	0.0130	0.0291	
Magnesium (total)			mg/L		14.6	24.4	24.3	28.0	24.9	18.6	22.7	22.1	25.1	29.4	22.0	18.9	21.1	19.9	
Manganese			mg/L		0.0124	0.0207	0.0192	0.0259	0.0161	0.0307	0.0292	0.0114	0.0211	0.256	0.0186	0.0450	0.0105	0.0364	
Mercury			mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	0.00009	< 0.00001	< 0.00001	< 0.00001	< 0.00001	
Molybdenum			mg/L		0.0013	< 0.0010	< 0.0010	< 0.0010	0.0012	0.0014	0.0010	< 0.0010	< 0.0010	0.0015	0.0010	0.0012	0.0012	0.0012	
Nickel			mg/L		0.0087	0.0116	0.0168	0.0216	0.0102	0.0076	0.0149	0.0149	0.0205	0.0386	0.0194	0.0123	0.0157	0.0099	
Potassium (total)			mg/L		8.33	10.6	11.2	12.7	11.6	9.29	12.2	10.7	12.6	15.4	11.6	12.0	11.6	11.8	
Selenium			mg/L		< 0.00010	0.00015	0.00010	0.00010	0.00011	0.00012	0.00010	0.00010	< 0.00010	0.00015	0.00010	< 0.00010	< 0.00010	< 0.00010	
Silicon			mg/L		0.85	1.15	1.27	1.77	1.92	1.70	1.66	1.30	1.32	18.4	1.06	2.82	0.86	2.19	
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000028	< 0.000020	< 0.000020	< 0.000020	< 0.000020	
Sodium (total)			mg/L		47.0	83.5	96.4	91.7	79.7	67.8	76.4	67.6	76.4	60.1	73.4	60.1	73.4	68.3	
Strontium			mg/L		0.528	0.805	0.848	1.20	1.44	0.882	1.86	0.801	1.16	1.47	0.650	0.935	0.641	0.803	
Sulphur			mg/L		29.8	50.8	50.8	56.9	73.9	61.8	57.0	58.8	59.0	54.8	51.1	46.5	56.7	52.9	
Thallium			mg/L		0.000011	0.000011	0.000013	0.000012	0.000017	0.000014	0.000021	0.000010	0.000012	0.000182	< 0.000010	0.000028	< 0.000010	0.000020	
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	
Titanium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0073	0.0098	< 0.0050	< 0.0050	0.623	< 0.0050	0.0635	< 0.0050	0.0353	
Uranium			mg/L		0.00249	0.00251	0.00267	0.00287	0.00245	0.00184	0.00236	0.00273	0.00236	0.00273	0.00227	0.00269	0.00234	0.00234	
Vanadium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0307	< 0.0050	< 0.0050	< 0.0050	< 0.0050	
Zinc			mg/L		0.0167	0.0278</													

MEL-SR1	MEL-SR	MEL-SR	Sample date	Annual	6/17/2021	7/3/2021	7/7/2021	7/12/2021	7/17/2021	7/23/2021	7/30/2021	8/2/2021	8/8/2021	8/12/2021	8/31/2021	9/3/2021	9/10/2021	9/11/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1H4395	C1I9130	C1I4802	C1K1355	C1K4953	C1L4410	C1I9425	C1M1172	C1M7891	C1N7138	C1P4412	C1Q0259	C1O8877	C1O8851
Cobalt			mg/L		-	-	-	-	-	-	0.00035	0.00021	0.00031	< 0.00020	0.00023	0.00082	0.00034	0.00034
Copper			mg/L		-	-	-	-	-	-	0.00349	0.00338	0.00347	0.00405	0.00384	0.00493	0.00325	0.00294
Iron			mg/L		-	-	-	-	-	-	0.0057	0.0078	0.0089	0.0061	0.0437	0.534	0.0123	0.0073
Lead			mg/L		-	-	-	-	-	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00073	< 0.00020	< 0.00020
Lithium			mg/L		-	-	-	-	-	-	0.0916	0.0238	0.0437	0.0666	0.0163	0.0465	0.0128	0.0284
Magnesium (Dissolved)			mg/L		-	-	-	-	-	-	-	-	-	20.5	22.5	18.8	21.6	20.4
Manganese			mg/L		-	-	-	-	-	-	0.0148	0.0045	0.0096	0.0066	0.0069	0.0289	0.0078	0.0115
Mercury			mg/L		-	-	-	-	-	-	< 0.000050	< 0.000050	< 0.000050	-	-	-	< 0.000050	< 0.000050
Molybdenum			mg/L		-	-	-	-	-	-	< 0.0010	< 0.0010	< 0.0010	0.0011	< 0.0010	0.0012	0.0011	0.0012
Nickel			mg/L		-	-	-	-	-	-	0.0148	0.0138	0.0201	0.0060	0.0188	0.0103	0.0152	0.0077
Potassium (Dissolved)			mg/L		-	-	-	-	-	-	-	-	-	11.9	11.8	12.2	11.5	11.9
Selenium			mg/L		-	-	-	-	-	-	< 0.00010	< 0.00010	0.00010	< 0.00010	0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L		-	-	-	-	-	-	1.36	1.18	1.38	1.44	1.09	1.66	0.82	1.05
Silver			mg/L		-	-	-	-	-	-	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L		-	-	-	-	-	-	-	-	-	72.7	77.3	62.2	74.6	72.5
Strontium			mg/L		-	-	-	-	-	-	2.16	0.821	1.03	1.35	0.677	0.965	0.632	0.787
Sulphur			mg/L		-	-	-	-	-	-	-	-	-	51.6	52.3	48.4	56.8	54.1
Thallium			mg/L		-	-	-	-	-	-	0.000022	0.000011	0.000012	0.000021	< 0.000010	0.000020	< 0.000010	0.000011
Tin			mg/L		-	-	-	-	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		-	-	-	-	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0178	< 0.0050	< 0.0050
Uranium			mg/L		-	-	-	-	-	-	0.00244	0.00243	0.00225	0.00227	0.00223	0.00231	0.00263	0.00234
Vanadium			mg/L		-	-	-	-	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		-	-	-	-	-	-	0.0189	0.0134	0.0246	< 0.0050	0.0140	0.0111	0.0088	< 0.0050
Zirconium			mg/L		-	-	-	-	-	-	< 0.00010	< 0.00010	0.00011	< 0.00010	< 0.00010	0.00027	< 0.00010	< 0.00010

MEL-SR1	MEL-SR	MEL-SR	Sample date	Annual	9/13/2021	9/30/2021	10/4/2021	10/5/2021	10/11/2021	10/12/2021	10/17/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1Q9696	C1T1442	C1T3734	C1T4687	C1U0319	C1U1500	C1U6656
Cobalt			mg/L		0.00028	0.00027	< 0.00020	0.00021	< 0.00020	0.00032	0.00031
Copper			mg/L		0.00292	0.00285	0.00267	0.00283	0.00302	0.00266	0.00272
Iron			mg/L		0.0280	0.0083	< 0.0050	0.0144	0.0052	0.0119	0.0090
Lead			mg/L		< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L		0.0101	0.0138	0.0119	0.0144	0.0113	0.0097	0.0109
Magnesium (Dissolved)			mg/L		14.1	19.3	14.1	16.5	19.0	15.1	17.1
Manganese			mg/L		0.0073	0.0059	0.0012	0.0145	< 0.0010	0.0123	0.0107
Mercury			mg/L		-	-	-	-	-	-	-
Molybdenum			mg/L		0.0019	0.0011	0.0010	0.0015	0.0014	0.0014	0.0015
Nickel			mg/L		0.0058	0.0119	0.0051	0.0074	0.0085	0.0064	0.0064
Potassium (Dissolved)			mg/L		8.78	10.7	8.13	9.90	10.1	8.27	9.14
Selenium			mg/L		< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L		1.18	0.70	1.07	1.35	1.41	1.42	1.66
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L		44.8	66.1	50.5	53.0	61.8	48.1	56.6
Strontium			mg/L		0.419	0.599	0.424	0.552	0.567	0.442	0.502
Sulphur			mg/L		37.6	45.4	36.4	43.1	50.2	39.4	46.1
Thallium			mg/L		< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000012	< 0.000010	< 0.000010
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium			mg/L		0.00182	0.00265	0.00181	0.00222	0.00267	0.00200	0.00233
Vanadium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		< 0.0050	0.0064	< 0.0050	0.0189	0.0181	< 0.0050	0.0070
Zirconium			mg/L		< 0.00010	< 0.00010	0.00010	0.00011	< 0.00010	< 0.00010	< 0.00010

MEL-SR1-US	MEL-SR	MEL-SR	Sample date	Annual	7/17/2021	8/12/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1K4953	C1N7138	C1T3734
Field Measured							
Temperature			°C		-	9.8	5.7
pH	6.0 - 9.5	6.0 - 9.5	pH units		-	8.41	8.14
Conductivity			uS/cm		-	1217	800
Dissolved oxygen			mg/L		-	10.69	12.7
Dissolved oxygen			%		-	98.1	101.6
Turbidity			NTU		-	-	201
Conventional Parameters							
pH	6.0 - 9.5	6.0 - 9.5	pH units		7.99	7.98	7.90
Turbidity			NTU		0.2	210	72
Hardness, as CaCO3 (T)			mg/L		443	393	237
Hardness, as CaCO3 (D)			mg/L		-	224	204
Total alkalinity, as CaCO3			mg/L		150	67	94
TDS			mg/L		745	625	445
TDS, calculated			mg/L		-	610	430
TSS	100	50	mg/L	400.33	1	1000	200
Major Ions							
Chloride			mg/L		210	230	110
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L		0.12	0.13	0.12
Silica			mg/L		-	2.2	2.2
Sulfate			mg/L		200	120	120
Nutrients and Chlorophyll a							
Ammonia Nitrogen			mg/L		< 0.050	0.13	0.074
Nitrate			mg/L		0.22	0.26	1.46
Nitrite			mg/L		< 0.010	0.016	< 0.010
Nitrate + nitrite			mg/L		0.22	0.27	1.46
Total phosphorus			mg/L		< 0.020	0.86	0.22
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010
General Organics							
Total oil and grease			mg/L		< 0.50	< 0.50	< 0.50
Total Metals							
Aluminum			mg/L		0.0137	36.0	7.07
Antimony			mg/L		0.00056	< 0.0025	0.00057

MEL-SR1-US	MEL-SR	MEL-SR	Sample date	Annual	7/17/2021	8/12/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1K4953	C1N7138	C1T3734
Arsenic			mg/L		0.00417	0.0333	0.0103
Barium			mg/L		0.0579	0.435	0.0893
Beryllium			mg/L		< 0.00010	0.00059	< 0.00010
Bismuth			mg/L		< 0.0010	< 0.0050	< 0.0010
Boron			mg/L		0.104	< 0.25	0.091
Cadmium			mg/L		0.000025	0.000324	0.000096
Calcium (total)			mg/L		139	78.1	64.8
Chromium			mg/L		< 0.0010	0.196	0.0412
Cobalt			mg/L		0.00080	0.0474	0.00821
Copper			mg/L		0.00497	0.195	0.0331
Iron			mg/L		0.089	58.7	11.2
Lead			mg/L		< 0.00020	0.0220	0.00402
Lithium			mg/L		0.0492	0.074	0.0140
Magnesium (total)			mg/L		23.1	48.1	18.4
Manganese			mg/L		0.0177	0.876	0.180
Mercury			mg/L		< 0.00001	0.00004	< 0.00001
Molybdenum			mg/L		0.0012	< 0.0050	0.0018
Nickel			mg/L		0.0249	0.128	0.0704
Potassium (total)			mg/L		10.8	26.7	9.83
Selenium			mg/L		0.00014	0.00059	0.00031
Silicon			mg/L		1.89	60.3	12.0
Silver			mg/L		< 0.000020	0.00020	0.000029
Sodium (total)			mg/L		87.3	135	63.4
Strontium			mg/L		1.20	0.394	0.273
Sulphur			mg/L		66.9	44	41.3
Thallium			mg/L		0.000014	0.000582	0.000106
Tin			mg/L		< 0.0050	< 0.025	< 0.0050
Titanium			mg/L		< 0.0050	2.09	0.353
Uranium			mg/L		0.00224	0.00433	0.00201
Vanadium			mg/L		< 0.0050	0.109	0.0192
Zinc			mg/L		< 0.0050	0.199	0.0500
Zirconium			mg/L		< 0.00010	0.00546	0.00104
Dissolved Metals							
Aluminum			mg/L		-	0.0365	0.0463

MEL-SR1-US	MEL-SR	MEL-SR	Sample date	Annual	7/17/2021	8/12/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1K4953	C1N7138	C1T3734
Antimony			mg/L		-	< 0.00050	0.00051
Arsenic			mg/L		-	0.00096	0.00159
Barium			mg/L		-	0.0435	0.0292
Beryllium			mg/L		-	< 0.00010	< 0.00010
Bismuth			mg/L		-	< 0.0010	< 0.0010
Boron			mg/L		-	0.160	0.095
Cadmium			mg/L		-	< 0.000010	0.000016
Calcium (Dissolved)			mg/L		-	55.4	58.7
Chromium			mg/L		-	< 0.0010	< 0.0010
Cobalt			mg/L		-	< 0.00020	0.00029
Copper			mg/L		-	0.00355	0.00306
Iron			mg/L		-	0.0091	< 0.0050
Lead			mg/L		-	< 0.00020	< 0.00020
Lithium			mg/L		-	0.0075	0.0051
Magnesium (Dissolved)			mg/L		-	20.9	13.9
Manganese			mg/L		-	0.0011	0.0094
Molybdenum			mg/L		-	0.0017	0.0026
Nickel			mg/L		-	0.0024	0.0312
Potassium (Dissolved)			mg/L		-	14.1	8.60
Selenium			mg/L		-	0.00018	0.00020
Silicon			mg/L		-	1.23	1.06
Silver			mg/L		-	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L		-	123	65.7
Strontium			mg/L		-	0.293	0.243
Sulphur			mg/L		-	42.8	43.8
Thallium			mg/L		-	0.000018	0.000016
Tin			mg/L		-	< 0.0050	< 0.0050
Titanium			mg/L		-	< 0.0050	< 0.0050
Uranium			mg/L		-	0.00205	0.00176
Vanadium			mg/L		-	< 0.0050	< 0.0050
Zinc			mg/L		-	< 0.0050	< 0.0050
Zirconium			mg/L		-	< 0.00010	< 0.00010

MEL-SR7	MEL-SR	MEL-SR	Sample date	Annual	6/3/2021	6/8/2021		6/17/2021	7/17/2021	7/23/2021	8/12/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1F9110	C1G1346	C1G1346	C1H4395	C1K4981	C1L4410	C1N7138
Field Measured											
Temperature			°C		4.9	7.7		8.63	7.5	9.9	9.4
pH	6.0 - 9.5	6.0 - 9.5	pH units		8.23	7.74		7.96	7.49	8.01	7.74
Conductivity			uS/cm		247.4	254.3		546.7	1449	786	1927
Dissolved oxygen			mg/L		11.8	9.29		12.2	16.07	8.68	10.34
Dissolved oxygen			%		92.1	77.8		104.8	134.7	76.8	91.4
Turbidity			NTU		-	-		3.83	4.81	3.48	10.6
Conventional Parameters											
pH	6.0 - 9.5	6.0 - 9.5	pH units		7.69	7.74	7.85	8.06	8.08	8.13	8.01
Turbidity			NTU		1.2	11	9.6	1.8	1.0	1.1	4.8
Hardness, as CaCO3 (T)			mg/L		73.6	83.9	130	158	398	373	562
Hardness, as CaCO3 (D)			mg/L		-	-	-	-	-	-	552
Total alkalinity, as CaCO3			mg/L		56	61	86	110	130	130	160
TDS			mg/L		175	175	245	320	745	605	1080
TDS, calculated			mg/L		-	-	-	-	-	-	1000
TSS	100	50	mg/L	23.13	5	16	12	1	1	2	5
Major Ions											
Chloride			mg/L		25	30	41	70	230	130	360
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L		< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.13	< 0.10
Silica			mg/L		-	-	-	-	-	-	3.7
Sulfate			mg/L		24	33	37	59	180	200	220
Nutrients and Chlorophyll a											
Ammonia Nitrogen			mg/L		< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.13
Nitrate			mg/L		< 0.10	< 0.10	< 0.10	< 0.10	0.14	0.11	0.27
Nitrite			mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L		< 0.10	< 0.10	< 0.10	< 0.10	0.14	0.11	0.27
Total phosphorus			mg/L		0.022	0.034	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
General Organics											
Total oil and grease			mg/L		< 0.50	0.60	< 0.50	< 0.50	< 0.50	0.80	< 0.50
Total Metals											
Aluminum			mg/L		0.223	0.521	0.401	0.0300	0.173	0.0767	0.137
Antimony			mg/L		< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	0.00052	< 0.00050
Arsenic			mg/L		0.00119	0.00364	0.00260	0.00298	0.00788	0.00207	0.00596
Barium			mg/L		0.0171	0.0192	0.0249	0.0252	0.0472	0.0519	0.0654
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		< 0.050	< 0.050	< 0.050	< 0.050	0.122	0.075	0.142
Cadmium			mg/L		0.000012	0.000018	0.000012	0.000012	0.000036	0.000013	0.000030
Calcium (total)			mg/L		22.9	25.5	41.0	47.9	123	118	171
Chromium			mg/L		0.0014	0.0033	0.0028	< 0.0010	0.0018	< 0.0010	0.0013
Cobalt			mg/L		0.00040	0.00104	0.00097	0.00229	0.00184	0.00067	0.00214
Copper			mg/L		0.00330	0.00543	0.00465	0.00332	0.00808	0.00404	0.00497
Iron			mg/L		0.365	0.850	0.670	0.145	0.330	0.208	0.369
Lead			mg/L		0.00026	0.00056	0.00042	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L		0.0028	0.0045	0.0100	0.0057	0.0696	0.0227	0.102
Magnesium (total)			mg/L		3.98	4.90	6.70	9.31	21.9	19.0	32.7
Manganese			mg/L		0.0183	0.0204	0.0502	0.0305	0.0251	0.0411	0.0691
Mercury			mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L		< 0.0010	< 0.0010	0.0011	< 0.0010	0.0011	0.0015	< 0.0010
Nickel			mg/L		0.0026	0.0044	0.0059	0.0075	0.0138	0.0055	0.0127

MEL-SR7	MEL-SR	MEL-SR	Sample date	Annual	9/10/2021	9/11/2021	9/13/2021	9/30/2021	10/4/2021	10/5/2021	10/12/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1Q8877	C1Q8851	C1Q9696	C1T1442	C1T3734	C1T4687	C1U1500
Field Measured											
Temperature			°C		8.6	8.1	?	-	5.7	4.4	3.3
pH	6.0 - 9.5	6.0 - 9.5	pH units		7.49	7.58	7.78	-	8.31	7.91	7.09
Conductivity			uS/cm		1281	1780	737	-	390.5	430	824.1
Dissolved oxygen			mg/L		?	10.9	?	-	12.53	14.64	12.14
Dissolved oxygen			%		863	93.1	?	-	101	113	91.1
Turbidity			NTU		?	15.5	20	-	620	4.61	13.2
Conventional Parameters											
pH	6.0 - 9.5	6.0 - 9.5	pH units		8.09	7.96	8.07	8.16	7.82	8.08	8.16
Turbidity			NTU		0.1	49	5.6	0.1	190	3.1	12
Hardness, as CaCO3 (T)			mg/L		396	506	229	377	203	290	268
Hardness, as CaCO3 (D)			mg/L		392	514	230	364	150	289	271
Total alkalinity, as CaCO3			mg/L		200	130	130	190	74	160	140
TDS			mg/L		655	1150	435	690	315	560	455
TDS, calculated			mg/L		640	930	400	640	260	510	460
TSS	100	50	mg/L	23.13	2	17	6	1	250	4	9
Major Ions											
Chloride			mg/L		130	340	95	150	75	130	110
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L		< 0.10	0.10	0.10	0.11	< 0.10	0.11	0.10
Silica			mg/L		3.4	2.8	2.9	3.1	1.8	3.4	3.1
Sulfate			mg/L		160	190	80	150	50	110	100
Nutrients and Chlorophyll a											
Ammonia Nitrogen			mg/L		< 0.050	< 0.050	< 0.050	< 0.050	0.13	0.061	< 0.050
Nitrate			mg/L		1.05	0.47	0.15	< 0.10	0.12	0.27	0.20
Nitrite			mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L		1.05	0.47	0.15	< 0.10	0.12	0.27	0.20
Total phosphorus			mg/L		0.023	0.037	0.028	< 0.020	0.24	< 0.020	< 0.020
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
General Organics											
Total oil and grease			mg/L		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.90	< 0.50
Total Metals											
Aluminum			mg/L		0.0104	0.502	0.174	0.0117	14.9	0.0695	0.313
Antimony			mg/L		0.00058	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L		0.0160	0.00253	0.00286	0.00097	0.00975	0.00688	0.00512
Barium			mg/L		0.0417	0.0627	0.0333	0.0540	0.0657	0.0369	0.0347
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		< 0.050	0.143	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium			mg/L		0.000058	0.000029	0.000015	0.000011	0.000104	0.000019	0.000016
Calcium (total)			mg/L		126	150	70.9	119	46.5	89.5	82.5
Chromium			mg/L		< 0.0010	0.0046	0.0015	< 0.0010	0.149	< 0.0010	0.0031
Cobalt			mg/L		0.00456	0.00165	0.00072	< 0.00020	0.0170	0.00135	0.00125
Copper			mg/L		0.00937	0.00303	0.00483	0.00309	0.0397	0.00574	0.00523
Iron			mg/L		0.039	0.891	0.302	0.025	23.8	0.139	0.545
Lead			mg/L		< 0.00020	0.00026	< 0.00020	< 0.00020	0.00556	< 0.00020	< 0.00020
Lithium			mg/L		0.0122	0.105	0.0139	0.0068	0.0393	0.0122	0.0112
Magnesium (total)			mg/L		19.7	31.5	12.7	19.6	21.2	16.2	14.9
Manganese			mg/L		0.0067	0.0735	0.0230	0.0023	0.371	0.0097	0.0167
Mercury			mg/L		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L		< 0.0010	0.0012	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel			mg/L		0.0291	0.0088	0.0062	0.0044	0.0542	0.0105	0.0091

MEL-SR7	MEL-SR	MEL-SR	Sample date	Annual	9/10/2021	9/11/2021	9/13/2021	9/30/2021	10/4/2021	10/5/2021	10/12/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1Q8877	C1Q8851	C1Q9696	C1T1442	C1T3734	C1T4687	C1U1500
Potassium (total)			mg/L		9.50	16.4	7.99	9.99	6.79	8.40	8.00
Selenium			mg/L		0.00015	0.00012	< 0.00010	< 0.00010	0.00013	< 0.00010	< 0.00010
Silicon			mg/L		1.62	2.08	1.65	1.41	22.4	1.63	1.97
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000027	< 0.000020	< 0.000020
Sodium (total)			mg/L		70.2	116	48.6	78.1	33.6	60.9	55.9
Strontium			mg/L		0.515	1.86	0.392	0.519	0.348	0.442	0.415
Sulphur			mg/L		56.0	65.6	28.3	55.2	18.7	41.1	34.4
Thallium			mg/L		0.000012	0.000035	< 0.000010	< 0.000010	0.000098	< 0.000010	0.000011
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		< 0.0050	0.0189	0.0058	< 0.0050	0.554	< 0.0050	0.0110
Uranium			mg/L		0.00278	0.00159	0.00123	0.00245	0.00126	0.00191	0.00169
Vanadium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0361	< 0.0050	< 0.0050
Zinc			mg/L		0.0067	0.0150	0.0126	< 0.0050	0.165	< 0.0050	0.0055
Zirconium			mg/L		0.00018	0.00015	< 0.00010	< 0.00010	0.00118	0.00012	0.00017
Dissolved Metals											
Aluminum			mg/L		0.0044	0.0102	0.0075	0.0033	0.0457	0.0061	0.0087
Antimony			mg/L		0.00058	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L		0.0154	0.00191	0.00264	0.00073	0.00134	0.00679	0.00449
Barium			mg/L		0.0413	0.0611	0.0327	0.0511	0.0215	0.0359	0.0322
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		< 0.050	0.148	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium			mg/L		0.000049	0.000030	0.000014	< 0.000010	< 0.000010	0.000016	0.000013
Calcium (Dissolved)			mg/L		123	154	71.8	116	45.0	88.9	83.9
Chromium			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt			mg/L		0.00466	0.00095	0.00047	< 0.00020	< 0.00020	0.00119	0.00080
Copper			mg/L		0.00902	0.00180	0.00384	0.00295	0.00106	0.00476	0.00376
Iron			mg/L		0.0143	< 0.0050	0.0115	0.0076	< 0.0050	0.0087	0.0077
Lead			mg/L		< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L		0.0121	0.111	0.0141	0.0064	0.0210	0.0110	0.0106
Magnesium (Dissolved)			mg/L		20.4	31.7	12.4	18.0	9.01	16.3	15.0
Manganese			mg/L		0.0063	0.0572	0.0141	0.0010	0.0239	0.0061	0.0088
Mercury			mg/L		< 0.000050	< 0.000050	-	-	-	-	-
Molybdenum			mg/L		< 0.0010	0.0012	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel			mg/L		0.0294	0.0072	0.0053	0.0044	< 0.0010	0.0100	0.0067
Potassium (Dissolved)			mg/L		9.74	16.6	8.07	10.0	5.51	8.42	7.88
Selenium			mg/L		0.00017	0.00011	< 0.00010	< 0.00010	< 0.00010	0.00010	< 0.00010
Silicon			mg/L		1.54	1.30	1.36	1.10	0.91	1.47	1.50
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L		74.4	122	47.3	75.0	34.4	60.1	56.2
Strontium			mg/L		0.510	1.94	0.413	0.486	0.340	0.426	0.406
Sulphur			mg/L		57.3	67.6	30.0	45.9	20.0	39.0	35.4
Thallium			mg/L		0.000012	0.000032	< 0.000010	< 0.000010	0.000019	< 0.000010	< 0.000010
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium			mg/L		0.00281	0.00165	0.00125	0.00239	0.00065	0.00189	0.00166
Vanadium			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		0.0053	0.0075	0.0072	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium			mg/L		0.00018	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00011	0.00011

MEL-SR7	MEL-SR	MEL-SR	Sample date	Annual	10/17/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1U6656
Field Measured					
Temperature			°C		3.3
pH	6.0 - 9.5	6.0 - 9.5	pH units		7.7
Conductivity			uS/cm		1084
Dissolved oxygen			mg/L		9.98
Dissolved oxygen			%		74.9
Turbidity			NTU		20.1
Conventional Parameters					
pH	6.0 - 9.5	6.0 - 9.5	pH units		8.03
Turbidity			NTU		21
Hardness, as CaCO3 (T)			mg/L		323
Hardness, as CaCO3 (D)			mg/L		324
Total alkalinity, as CaCO3			mg/L		160
TDS			mg/L		610
TDS, calculated			mg/L		590
TSS	100	50	mg/L	23.13	16
Major Ions					
Chloride			mg/L		150
Cyanide			mg/L		< 0.0050
Fluoride			mg/L		0.12
Silica			mg/L		3.6
Sulfate			mg/L		140
Nutrients and Chlorophyll a					
Ammonia Nitrogen			mg/L		< 0.050
Nitrate			mg/L		0.40
Nitrite			mg/L		< 0.010
Nitrate + nitrite			mg/L		0.40
Total phosphorus			mg/L		< 0.020
Orthophosphate (P)			mg/L		< 0.010
General Organics					
Total oil and grease			mg/L		< 0.50
Total Metals					
Aluminum			mg/L		0.515
Antimony			mg/L		< 0.00050
Arsenic			mg/L		0.00678
Barium			mg/L		0.0421
Beryllium			mg/L		< 0.00010
Bismuth			mg/L		< 0.0010
Boron			mg/L		0.056
Cadmium			mg/L		0.000023
Calcium (total)			mg/L		96.4
Chromium			mg/L		0.0045
Cobalt			mg/L		0.00199
Copper			mg/L		0.00575
Iron			mg/L		0.827
Lead			mg/L		0.00022
Lithium			mg/L		0.0194
Magnesium (total)			mg/L		19.9
Manganese			mg/L		0.0276
Mercury			mg/L		< 0.00001
Molybdenum			mg/L		0.0011
Nickel			mg/L		0.0112

MEL-SR7	MEL-SR	MEL-SR	Sample date	Annual	10/17/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1U6656
Potassium (total)			mg/L		9.50
Selenium			mg/L		0.00011
Silicon			mg/L		2.40
Silver			mg/L		< 0.000020
Sodium (total)			mg/L		72.3
Strontium			mg/L		0.553
Sulphur			mg/L		47.8
Thallium			mg/L		0.000013
Tin			mg/L		< 0.0050
Titanium			mg/L		0.0192
Uranium			mg/L		0.00215
Vanadium			mg/L		< 0.0050
Zinc			mg/L		0.0077
Zirconium			mg/L		0.00021
Dissolved Metals					
Aluminum			mg/L		0.0078
Antimony			mg/L		< 0.00050
Arsenic			mg/L		0.00625
Barium			mg/L		0.0405
Beryllium			mg/L		< 0.00010
Bismuth			mg/L		< 0.0010
Boron			mg/L		0.057
Cadmium			mg/L		0.000019
Calcium (Dissolved)			mg/L		97.3
Chromium			mg/L		< 0.0010
Cobalt			mg/L		0.00144
Copper			mg/L		0.00437
Iron			mg/L		0.0090
Lead			mg/L		< 0.00020
Lithium			mg/L		0.0201
Magnesium (Dissolved)			mg/L		19.5
Manganese			mg/L		0.0166
Mercury			mg/L		-
Molybdenum			mg/L		0.0011
Nickel			mg/L		0.0103
Potassium (Dissolved)			mg/L		9.46
Selenium			mg/L		0.00010
Silicon			mg/L		1.67
Silver			mg/L		< 0.000020
Sodium (Dissolved)			mg/L		73.9
Strontium			mg/L		0.559
Sulphur			mg/L		47.4
Thallium			mg/L		0.000012
Tin			mg/L		< 0.0050
Titanium			mg/L		< 0.0050
Uranium			mg/L		0.00221
Vanadium			mg/L		< 0.0050
Zinc			mg/L		< 0.0050
Zirconium			mg/L		< 0.00010

MEL-SR7-US	MEL-SR	MEL-SR	Sample date	Annual	6/17/2021	8/12/2021	9/30/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1H4395	C1N7138	C1T1442	C1T3734
Field Measured								
Temperature			°C		13.2	9.7	-	6.3
pH	6.0 - 9.5	6.0 - 9.5	pH units		8.14	8.06	-	8.35
Conductivity			uS/cm		393.2	670	-	516.1
Dissolved oxygen			mg/L		104	10.65	-	13.07
Dissolved oxygen			%		10.9	94.1	-	106.9
Turbidity			NTU		5.86	-	-	415
Conventional Parameters								
pH	6.0 - 9.5	6.0 - 9.5	pH units		8.03	8.07	8.25	8.00
Turbidity			NTU		0.9	220	2.6	140
Hardness, as CaCO3 (T)			mg/L		112	351	398	199
Hardness, as CaCO3 (D)			mg/L		-	205	387	166
Total alkalinity, as CaCO3			mg/L		72	110	250	120
TDS			mg/L		240	355	630	295
TDS, calculated			mg/L		-	350	620	270
TSS	100	50	mg/L	320	16	1100	4	160
Major Ions								
Chloride			mg/L		61	78	140	65
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L		0.10	0.13	0.17	< 0.10
Silica			mg/L		-	3.0	5.0	3.0
Sulfate			mg/L		53	83	110	38
Nutrients and Chlorophyll a								
Ammonia Nitrogen			mg/L		< 0.050	0.15	< 0.050	0.072
Nitrate			mg/L		0.22	0.10	0.19	0.12
Nitrite			mg/L		< 0.010	0.016	< 0.010	< 0.010
Nitrate + nitrite			mg/L		0.22	0.12	0.19	0.12
Total phosphorus			mg/L		< 0.020	0.89	< 0.020	0.23
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010	< 0.010
General Organics								
Total oil and grease			mg/L		< 0.50	< 0.50	< 0.50	< 0.50
Total Metals								
Aluminum			mg/L		0.0739	28.5	0.0231	9.08
Antimony			mg/L		< 0.00050	< 0.0025	< 0.00050	< 0.00050
Arsenic			mg/L		0.00250	0.0218	0.00107	0.00735
Barium			mg/L		0.0257	0.488	0.0727	0.141
Beryllium			mg/L		< 0.00010	0.00051	< 0.00010	0.00012

MEL-SR7-US	MEL-SR	MEL-SR	Sample date	Annual	6/17/2021	8/12/2021	9/30/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1H4395	C1N7138	C1T1442	C1T3734
Bismuth			mg/L		< 0.0010	< 0.0050	< 0.0010	< 0.0010
Boron			mg/L		0.061	< 0.25	0.063	< 0.050
Cadmium			mg/L		0.000014	0.000195	< 0.000010	0.000066
Calcium (total)			mg/L		33.6	92.8	132	56.7
Chromium			mg/L		0.0026	0.132	< 0.0010	0.0412
Cobalt			mg/L		0.00028	0.0367	0.00055	0.00955
Copper			mg/L		0.00494	0.129	0.00354	0.0331
Iron			mg/L		0.095	45.4	0.443	13.4
Lead			mg/L		< 0.00020	0.0235	< 0.00020	0.00520
Lithium			mg/L		0.0039	0.064	0.0070	0.0165
Magnesium (total)			mg/L		6.71	29.0	16.9	13.9
Manganese			mg/L		0.0036	0.791	0.0608	0.261
Mercury			mg/L		0.00035	0.00003	< 0.00001	< 0.00001
Molybdenum			mg/L		0.0016	< 0.0050	0.0010	< 0.0010
Nickel			mg/L		0.0026	0.0837	0.0052	0.0253
Potassium (total)			mg/L		7.12	21.3	11.8	9.94
Selenium			mg/L		0.00018	< 0.00050	< 0.00010	0.00014
Silicon			mg/L		1.56	41.8	2.25	16.0
Silver			mg/L		< 0.000020	< 0.00010	< 0.000020	0.000034
Sodium (total)			mg/L		37.1	38.5	61.1	31.6
Strontium			mg/L		0.180	0.481	0.640	0.280
Sulphur			mg/L		17.8	27	40.1	14.5
Thallium			mg/L		0.000014	0.000563	< 0.000010	0.000142
Tin			mg/L		< 0.0050	< 0.025	< 0.0050	< 0.0050
Titanium			mg/L		< 0.0050	1.83	< 0.0050	0.526
Uranium			mg/L		0.00116	0.00383	0.00264	0.00171
Vanadium			mg/L		< 0.0050	0.090	< 0.0050	0.0255
Zinc			mg/L		< 0.0050	0.185	< 0.0050	0.0493
Zirconium			mg/L		< 0.00010	0.0163	0.00025	0.00135
Dissolved Metals								
Aluminum			mg/L		-	0.0397	0.0053	0.0574
Antimony			mg/L		-	< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L		-	0.00082	0.00070	0.00074
Barium			mg/L		-	0.0572	0.0685	0.0412
Beryllium			mg/L		-	< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L		-	< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		-	0.057	0.063	< 0.050

MEL-SR7-US	MEL-SR	MEL-SR	Sample date	Annual	6/17/2021	8/12/2021	9/30/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1H4395	C1N7138	C1T1442	C1T3734
Cadmium			mg/L		-	< 0.000010	< 0.000010	< 0.000010
Calcium (Dissolved)			mg/L		-	67.7	129	53.2
Chromium			mg/L		-	< 0.0010	< 0.0010	< 0.0010
Cobalt			mg/L		-	< 0.00020	0.00044	< 0.00020
Copper			mg/L		-	0.00329	0.00339	0.00360
Iron			mg/L		-	0.0058	0.0782	0.0088
Lead			mg/L		-	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L		-	0.0085	0.0064	0.0041
Magnesium (Dissolved)			mg/L		-	8.73	15.8	8.01
Manganese			mg/L		-	< 0.0010	0.0404	0.0132
Molybdenum			mg/L		-	0.0011	< 0.0010	< 0.0010
Nickel			mg/L		-	0.0017	0.0051	0.0024
Potassium (Dissolved)			mg/L		-	9.37	11.9	7.09
Selenium			mg/L		-	< 0.00010	0.00011	< 0.00010
Silicon			mg/L		-	1.48	1.77	1.38
Silver			mg/L		-	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L		-	35.4	58.2	31.9
Strontium			mg/L		-	0.368	0.593	0.247
Sulphur			mg/L		-	29.3	33.9	14.7
Thallium			mg/L		-	0.000018	< 0.000010	0.000011
Tin			mg/L		-	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		-	< 0.0050	< 0.0050	< 0.0050
Uranium			mg/L		-	0.00202	0.00257	0.00128
Vanadium			mg/L		-	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		-	< 0.0050	< 0.0050	< 0.0050
Zirconium			mg/L		-	< 0.00010	0.00016	< 0.00010

MEL-SR11	MEL-SR	MEL-SR	Sample date	8/12/2021	9/13/2021
Parameter	MAX GRAB	MAX MEAN	Unit	C1N7138	C1Q9696
Field Measured					
Temperature			°C	10.3	?
pH	6.0 - 9.5	6.0 - 9.5	pH units	8.02	7.91
Conductivity			uS/cm	1332	1100
Dissolved oxygen			mg/L	10.03	?
Dissolved oxygen			%	90.3	?
Turbidity			NTU	10.6	10.5
Conventional Parameters					
pH	6.0 - 9.5	6.0 - 9.5	pH units	8.10	8.21
Turbidity			NTU	0.9	1.0
Hardness, as CaCO3 (T)			mg/L	332	288
Hardness, as CaCO3 (D)			mg/L	317	295
Total alkalinity, as CaCO3			mg/L	160	180
TDS			mg/L	705	620
TDS, calculated			mg/L	720	610
TSS	100	50	mg/L	10	2
Major Ions					
Chloride			mg/L	170	140
Cyanide			mg/L	< 0.0050	< 0.0050
Fluoride			mg/L	0.28	0.25
Silica			mg/L	4.1	5.9
Sulfate			mg/L	200	140
Nutrients and Chlorophyll a					
Ammonia Nitrogen			mg/L	0.063	< 0.050
Nitrate			mg/L	1.86	1.64
Nitrite			mg/L	< 0.010	< 0.010
Nitrate + nitrite			mg/L	1.86	1.64
Total phosphorus			mg/L	0.039	< 0.020
Orthophosphate (P)			mg/L	< 0.010	< 0.010
General Organics					
Total oil and grease			mg/L	< 0.50	< 0.50
Total Metals					
Aluminum			mg/L	0.0759	0.0697
Antimony			mg/L	0.0144	0.0110

MEL-SR11	MEL-SR	MEL-SR	Sample date	8/12/2021	9/13/2021
Parameter	MAX GRAB	MAX MEAN	Unit	C1N7138	C1Q9696
Arsenic			mg/L	0.00183	0.00216
Barium			mg/L	0.0298	0.0279
Beryllium			mg/L	< 0.00010	< 0.00010
Bismuth			mg/L	< 0.0010	< 0.0010
Boron			mg/L	0.171	0.119
Cadmium			mg/L	0.000016	0.000012
Calcium (total)			mg/L	81.6	77.0
Chromium			mg/L	< 0.0010	< 0.0010
Cobalt			mg/L	0.00033	0.00035
Copper			mg/L	0.00298	0.00492
Iron			mg/L	0.232	0.138
Lead			mg/L	< 0.00020	< 0.00020
Lithium			mg/L	0.0144	0.0146
Magnesium (total)			mg/L	31.0	23.1
Manganese			mg/L	0.0039	0.0085
Mercury			mg/L	0.00001	< 0.00001
Molybdenum			mg/L	0.0070	0.0061
Nickel			mg/L	0.0042	0.0060
Potassium (total)			mg/L	14.5	13.3
Selenium			mg/L	0.00032	0.00031
Silicon			mg/L	2.05	2.94
Silver			mg/L	< 0.000020	< 0.000020
Sodium (total)			mg/L	123	97.2
Strontium			mg/L	0.411	0.390
Sulphur			mg/L	70.6	48.3
Thallium			mg/L	< 0.000010	0.000018
Tin			mg/L	< 0.0050	< 0.0050
Titanium			mg/L	< 0.0050	< 0.0050
Uranium			mg/L	0.0198	0.0146
Vanadium			mg/L	< 0.0050	< 0.0050
Zinc			mg/L	< 0.0050	< 0.0050
Zirconium			mg/L	< 0.00010	0.00023
Dissolved Metals					
Aluminum			mg/L	< 0.0030	0.0053

MEL-SR11	MEL-SR	MEL-SR	Sample date	8/12/2021	9/13/2021
Parameter	MAX GRAB	MAX MEAN	Unit	C1N7138	C1Q9696
Antimony			mg/L	0.0142	0.0115
Arsenic			mg/L	0.00142	0.00207
Barium			mg/L	0.0279	0.0282
Beryllium			mg/L	< 0.00010	< 0.00010
Bismuth			mg/L	< 0.0010	< 0.0010
Boron			mg/L	0.158	0.122
Cadmium			mg/L	< 0.000010	< 0.000010
Calcium (Dissolved)			mg/L	77.0	79.9
Chromium			mg/L	< 0.0010	< 0.0010
Cobalt			mg/L	< 0.00020	0.00027
Copper			mg/L	0.00232	0.00431
Iron			mg/L	0.0141	0.0150
Lead			mg/L	< 0.00020	< 0.00020
Lithium			mg/L	0.0127	0.0150
Magnesium (Dissolved)			mg/L	30.3	23.1
Manganese			mg/L	< 0.0010	0.0039
Molybdenum			mg/L	0.0070	0.0062
Nickel			mg/L	0.0036	0.0057
Potassium (Dissolved)			mg/L	14.3	13.4
Selenium			mg/L	0.00030	0.00028
Silicon			mg/L	1.74	2.93
Silver			mg/L	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L	121	96.9
Strontium			mg/L	0.403	0.394
Sulphur			mg/L	68.3	46.9
Thallium			mg/L	< 0.000010	0.000016
Tin			mg/L	< 0.0050	< 0.0050
Titanium			mg/L	< 0.0050	< 0.0050
Uranium			mg/L	0.0204	0.0152
Vanadium			mg/L	< 0.0050	< 0.0050
Zinc			mg/L	< 0.0050	< 0.0050
Zirconium			mg/L	0.00011	0.00022

MEL-SR13	MEL-SR	MEL-SR	Sample date	6/8/2021	9/13/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	C1G1346	C1Q9696	C1T3734
Field Measured						
Temperature			°C	6.4	?	5.2
pH	6.0 - 9.5	6.0 - 9.5	pH units	8.02	7.93	8.22
Conductivity			uS/cm	216.9	941	10.35
Dissolved oxygen			mg/L	10.96	?	11.74
Dissolved oxygen			%	89.2	?	93.2
Turbidity			NTU	-	3.43	1.86
Conventional Parameters						
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.65	8.13	8.15
Turbidity			NTU	2.6	0.5	0.7
Hardness, as CaCO3 (T)			mg/L	56.8	288	297
Hardness, as CaCO3 (D)			mg/L	-	296	300
Total alkalinity, as CaCO3			mg/L	45	160	160
TDS			mg/L	130	565	595
TDS, calculated			mg/L	-	540	550
TSS	100	50	mg/L	10	2	< 1
Major Ions						
Chloride			mg/L	27	110	130
Cyanide			mg/L	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L	< 0.10	0.14	0.13
Silica			mg/L	-	3.7	3.9
Sulfate			mg/L	20	140	130
Nutrients and Chlorophyll a						
Ammonia Nitrogen			mg/L	< 0.050	< 0.050	< 0.050
Nitrate			mg/L	< 0.10	0.12	< 0.10
Nitrite			mg/L	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L	< 0.10	0.12	< 0.10
Total phosphorus			mg/L	< 0.020	< 0.020	0.025
Orthophosphate (P)			mg/L	< 0.010	< 0.010	< 0.010
General Organics						
Total oil and grease			mg/L	< 0.50	< 0.50	< 0.50
Total Metals						
Aluminum			mg/L	0.138	0.0191	0.0221
Antimony			mg/L	< 0.00050	< 0.00050	< 0.00050

MEL-SR13	MEL-SR	MEL-SR	Sample date	6/8/2021	9/13/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	C1G1346	C1Q9696	C1T3734
Arsenic			mg/L	0.00061	0.00057	0.00052
Barium			mg/L	0.0082	0.0284	0.0278
Beryllium			mg/L	< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L	< 0.0010	< 0.0010	< 0.0010
Boron			mg/L	< 0.050	0.059	0.055
Cadmium			mg/L	< 0.000010	< 0.000010	< 0.000010
Calcium (total)			mg/L	16.0	82.9	84.5
Chromium			mg/L	0.0011	< 0.0010	< 0.0010
Cobalt			mg/L	0.00024	< 0.00020	< 0.00020
Copper			mg/L	0.00310	0.00465	0.00378
Iron			mg/L	0.263	0.039	0.043
Lead			mg/L	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L	< 0.0020	0.0060	0.0059
Magnesium (total)			mg/L	4.09	19.6	20.9
Manganese			mg/L	0.0069	0.0044	0.0021
Mercury			mg/L	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	< 0.0010	< 0.0010	< 0.0010
Nickel			mg/L	0.0021	0.0030	0.0026
Potassium (total)			mg/L	2.38	8.81	9.17
Selenium			mg/L	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L	0.62	1.81	1.93
Silver			mg/L	< 0.000020	< 0.000020	< 0.000020
Sodium (total)			mg/L	17.8	68.5	77.4
Strontium			mg/L	0.0627	0.318	0.327
Sulphur			mg/L	6.5	48.9	48.5
Thallium			mg/L	< 0.000010	< 0.000010	< 0.000010
Tin			mg/L	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L	0.0065	< 0.0050	< 0.0050
Uranium			mg/L	0.00021	0.00233	0.00274
Vanadium			mg/L	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L	0.0665	< 0.0050	0.0526
Zirconium			mg/L	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals						
Aluminum			mg/L	-	0.0059	0.0043

MEL-SR13	MEL-SR	MEL-SR	Sample date	6/8/2021	9/13/2021	10/4/2021
Parameter	MAX GRAB	MAX MEAN	Unit	C1G1346	C1Q9696	C1T3734
Antimony			mg/L	-	< 0.00050	< 0.00050
Arsenic			mg/L	-	0.00057	0.00051
Barium			mg/L	-	0.0283	0.0279
Beryllium			mg/L	-	< 0.00010	< 0.00010
Bismuth			mg/L	-	< 0.0010	< 0.0010
Boron			mg/L	-	0.059	0.057
Cadmium			mg/L	-	< 0.000010	< 0.000010
Calcium (Dissolved)			mg/L	-	84.8	84.4
Chromium			mg/L	-	< 0.0010	< 0.0010
Cobalt			mg/L	-	< 0.00020	< 0.00020
Copper			mg/L	-	0.00453	0.00354
Iron			mg/L	-	0.0162	0.0096
Lead			mg/L	-	< 0.00020	< 0.00020
Lithium			mg/L	-	0.0059	0.0059
Magnesium (Dissolved)			mg/L	-	20.4	21.7
Manganese			mg/L	-	0.0021	0.0012
Molybdenum			mg/L	-	< 0.0010	0.0017
Nickel			mg/L	-	0.0029	0.0026
Potassium (Dissolved)			mg/L	-	9.13	9.32
Selenium			mg/L	-	< 0.00010	< 0.00010
Silicon			mg/L	-	1.80	1.94
Silver			mg/L	-	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L	-	70.7	79.1
Strontium			mg/L	-	0.319	0.332
Sulphur			mg/L	-	50.9	51.4
Thallium			mg/L	-	< 0.000010	< 0.000010
Tin			mg/L	-	< 0.0050	< 0.0050
Titanium			mg/L	-	< 0.0050	< 0.0050
Uranium			mg/L	-	0.00237	0.00282
Vanadium			mg/L	-	< 0.0050	< 0.0050
Zinc			mg/L	-	< 0.0050	0.0513
Zirconium			mg/L	-	< 0.00010	< 0.00010

MEL-SR14	MEL-SR	MEL-SR	Sample date	Annual	6/3/2021	6/8/2021	6/17/2021	9/13/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1F9128	C1G1346	C1H4395	C1Q9696
Field Measured								
Temperature			°C		3.8	4.1	6.99	-
pH	6.0 - 9.5	6.0 - 9.5	pH units		8.08	7.88	8.05	-
Conductivity			uS/cm		319.1	211.9	557.4	-
Dissolved oxygen			mg/L		11.73	12.52	11.79	-
Dissolved oxygen			%		87.7	97	97.3	-
Turbidity			NTU		-	-	1.99	-
Conventional Parameters								
pH	6.0 - 9.5	6.0 - 9.5	pH units		7.25	7.65	8.02	7.98
Turbidity			NTU		14	39	1.1	1.9
Hardness, as CaCO3 (T)			mg/L		30.5	42.2	116	354
Hardness, as CaCO3 (D)			mg/L		-	-	-	345
Total alkalinity, as CaCO3			mg/L		28	52	100	120
TDS			mg/L		90	195	310	865
TDS, calculated			mg/L		-	-	-	820
TSS	100	50	mg/L	50.5	120	78	2	2
Major Ions								
Chloride			mg/L		9.8	21	66	250
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L		< 0.10	0.15	0.15	0.16
Silica			mg/L		-	-	-	4.4
Sulfate			mg/L		< 1.0	7.6	75	220
Nutrients and Chlorophyll a								
Ammonia Nitrogen			mg/L		< 0.050	< 0.050	< 0.050	< 0.050
Nitrate			mg/L		< 0.10	< 0.10	0.12	0.12
Nitrite			mg/L		< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L		< 0.10	< 0.10	0.12	0.12
Total phosphorus			mg/L		0.15	0.054	< 0.020	< 0.020
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010	< 0.010
General Organics								
Total oil and grease			mg/L		< 0.50	< 0.50	< 0.50	< 0.50
Total Metals								
Aluminum			mg/L		2.37	1.64	0.0756	0.0682
Antimony			mg/L		< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L		0.00202	0.00205	0.00082	0.00090
Barium			mg/L		0.0409	0.0241	0.0238	0.0566
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010	< 0.00010

MEL-SR14	MEL-SR	MEL-SR	Sample date	Annual	6/3/2021	6/8/2021	6/17/2021	9/13/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1F9128	C1G1346	C1H4395	C1Q9696
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		< 0.050	0.085	0.076	0.095
Cadmium			mg/L		0.000018	0.000022	0.000011	0.000020
Calcium (total)			mg/L		7.01	10.5	32.7	99.2
Chromium			mg/L		0.0098	0.0104	< 0.0010	< 0.0010
Cobalt			mg/L		0.00192	0.00211	0.00021	0.00036
Copper			mg/L		0.00889	0.0163	0.0157	0.0149
Iron			mg/L		3.55	2.64	0.126	0.120
Lead			mg/L		0.00111	0.00099	< 0.00020	< 0.00020
Lithium			mg/L		0.0055	0.0056	0.0059	0.0185
Magnesium (total)			mg/L		3.15	3.89	8.43	25.8
Manganese			mg/L		0.0536	0.0415	0.0026	0.0062
Mercury			mg/L		< 0.00001	< 0.00001	< 0.00001	0.00007
Molybdenum			mg/L		< 0.0010	0.0014	0.0014	0.0020
Nickel			mg/L		0.0061	0.0083	0.0054	0.0066
Potassium (total)			mg/L		2.66	3.19	5.02	10.9
Selenium			mg/L		< 0.00010	< 0.00010	0.00011	0.00016
Silicon			mg/L		4.07	3.27	1.57	2.38
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)			mg/L		8.60	27.7	63.2	152
Strontium			mg/L		0.0335	0.0489	0.166	0.489
Sulphur			mg/L		< 3.0	5.8	24.1	75.4
Thallium			mg/L		0.000047	0.000029	0.000017	0.000022
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		0.180	0.0881	< 0.0050	< 0.0050
Uranium			mg/L		0.00020	0.00022	0.00082	0.00183
Vanadium			mg/L		0.0073	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		0.0860	0.0712	0.132	0.123
Zirconium			mg/L		0.00042	0.00040	0.00016	0.00021
Dissolved Metals								
Aluminum			mg/L		-	-	-	0.0130
Antimony			mg/L		-	-	-	< 0.00050
Arsenic			mg/L		-	-	-	0.00082
Barium			mg/L		-	-	-	0.0542
Beryllium			mg/L		-	-	-	< 0.00010
Bismuth			mg/L		-	-	-	< 0.0010
Boron			mg/L		-	-	-	0.089

MEL-SR14	MEL-SR	MEL-SR	Sample date	Annual	6/3/2021	6/8/2021	6/17/2021	9/13/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C1F9128	C1G1346	C1H4395	C1Q9696
Cadmium			mg/L		-	-	-	0.000019
Calcium (Dissolved)			mg/L		-	-	-	97.6
Chromium			mg/L		-	-	-	< 0.0010
Cobalt			mg/L		-	-	-	0.00026
Copper			mg/L		-	-	-	0.0138
Iron			mg/L		-	-	-	0.0278
Lead			mg/L		-	-	-	< 0.00020
Lithium			mg/L		-	-	-	0.0175
Magnesium (Dissolved)			mg/L		-	-	-	24.6
Manganese			mg/L		-	-	-	0.0012
Molybdenum			mg/L		-	-	-	0.0065
Nickel			mg/L		-	-	-	0.0063
Potassium (Dissolved)			mg/L		-	-	-	10.5
Selenium			mg/L		-	-	-	0.00015
Silicon			mg/L		-	-	-	2.15
Silver			mg/L		-	-	-	< 0.000020
Sodium (Dissolved)			mg/L		-	-	-	149
Strontium			mg/L		-	-	-	0.465
Sulphur			mg/L		-	-	-	70.8
Thallium			mg/L		-	-	-	0.000020
Tin			mg/L		-	-	-	< 0.0050
Titanium			mg/L		-	-	-	< 0.0050
Uranium			mg/L		-	-	-	0.00178
Vanadium			mg/L		-	-	-	< 0.0050
Zinc			mg/L		-	-	-	0.118
Zirconium			mg/L		-	-	-	0.00021

MEL-SRA-40	MEL-SR	MEL-SR	Sample date	Annual	8/22/2021	8/22/2021	8/23/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C105002	C105002	C105002
Field Measured							
Temperature			°C		-	-	-
pH	6.0 - 9.5	6.0 - 9.5	pH units		-	-	-
Conductivity			uS/cm		-	-	-
Dissolved oxygen			mg/L		-	-	-
Dissolved oxygen			%		-	-	-
Turbidity			NTU		-	-	-
Conventional Parameters							
pH	6.0 - 9.5	6.0 - 9.5	pH units		7.42	7.78	7.81
Turbidity			NTU		48	2.4	2.8
Hardness, as CaCO3 (T)			mg/L		269	187	185
Hardness, as CaCO3 (D)			mg/L		257	184	185
Total alkalinity, as CaCO3			mg/L		51	66	60
TDS			mg/L		605	420	410
TDS, calculated			mg/L		430	280	290
TSS	100	50	mg/L	43.5	160	5	3
Major Ions							
Chloride			mg/L		140	92	96
Cyanide			mg/L		< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L		< 0.10	< 0.10	< 0.10
Silica			mg/L		2.2	0.86	1.1
Sulfate			mg/L		120	57	57
Nutrients and Chlorophyll a							
Ammonia Nitrogen			mg/L		0.25	0.12	0.30
Nitrate			mg/L		0.49	0.19	0.20
Nitrite			mg/L		0.012	< 0.010	< 0.010
Nitrate + nitrite			mg/L		0.51	0.19	0.20
Total phosphorus			mg/L		0.18	0.026	< 0.020
Orthophosphate (P)			mg/L		< 0.010	< 0.010	< 0.010
General Organics							
Total oil and grease			mg/L		< 0.50	< 0.50	< 0.50
Total Metals							
Aluminum			mg/L		1.14	0.0463	0.0583
Antimony			mg/L		< 0.00050	< 0.00050	< 0.00050

MEL-SRA-40	MEL-SR	MEL-SR	Sample date	Annual	8/22/2021	8/22/2021	8/23/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C105002	C105002	C105002
Arsenic			mg/L		0.0274	0.00519	0.00556
Barium			mg/L		0.0993	0.0610	0.0601
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		< 0.050	< 0.050	< 0.050
Cadmium			mg/L		0.000062	0.000151	< 0.000010
Calcium (total)			mg/L		75.8	57.6	56.2
Chromium			mg/L		0.0026	< 0.0010	< 0.0010
Cobalt			mg/L		0.00243	< 0.00020	0.00021
Copper			mg/L		0.00900	0.00270	0.00168
Iron			mg/L		3.35	0.353	0.432
Lead			mg/L		0.00258	< 0.00020	< 0.00020
Lithium			mg/L		0.0118	0.0084	0.0079
Magnesium (total)			mg/L		19.3	10.6	10.8
Manganese			mg/L		0.289	0.0253	0.0263
Mercury			mg/L		0.00030	0.00007	0.00005
Molybdenum			mg/L		< 0.0010	< 0.0010	< 0.0010
Nickel			mg/L		0.0089	0.0021	0.0022
Potassium (total)			mg/L		5.85	3.29	3.28
Selenium			mg/L		< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L		3.03	0.47	0.66
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020
Sodium (total)			mg/L		40.9	24.2	24.9
Strontium			mg/L		0.417	0.309	0.312
Sulphur			mg/L		42.9	21.0	21.4
Thallium			mg/L		0.000025	< 0.000010	< 0.000010
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		0.0585	< 0.0050	< 0.0050
Uranium			mg/L		0.00227	0.00032	0.00030
Vanadium			mg/L		< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		0.0100	< 0.0050	< 0.0050
Zirconium			mg/L		0.00131	0.00011	0.00010
Dissolved Metals							
Aluminum			mg/L		0.0146	0.0108	0.0075

MEL-SRA-40	MEL-SR	MEL-SR	Sample date	Annual	8/22/2021	8/22/2021	8/23/2021
Parameter	MAX GRAB	MAX MEAN	Unit	Average	C105002	C105002	C105002
Antimony			mg/L		< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L		0.00545	0.00375	0.00395
Barium			mg/L		0.0742	0.0573	0.0563
Beryllium			mg/L		< 0.00010	< 0.00010	< 0.00010
Bismuth			mg/L		< 0.0010	< 0.0010	< 0.0010
Boron			mg/L		< 0.050	< 0.050	< 0.050
Cadmium			mg/L		0.000021	0.000130	< 0.000010
Calcium (Dissolved)			mg/L		72.1	56.2	56.0
Chromium			mg/L		< 0.0010	< 0.0010	< 0.0010
Cobalt			mg/L		0.00067	< 0.00020	< 0.00020
Copper			mg/L		0.00217	0.00249	0.00142
Iron			mg/L		0.280	0.152	0.198
Lead			mg/L		< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L		0.0093	0.0078	0.0074
Magnesium (Dissolved)			mg/L		18.7	10.6	10.8
Manganese			mg/L		0.235	0.0169	0.0218
Molybdenum			mg/L		< 0.0010	< 0.0010	< 0.0010
Nickel			mg/L		0.0034	0.0019	0.0020
Potassium (Dissolved)			mg/L		5.48	3.25	3.24
Selenium			mg/L		< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L		0.99	0.39	0.51
Silver			mg/L		< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)			mg/L		41.4	24.7	26.0
Strontium			mg/L		0.371	0.293	0.294
Sulphur			mg/L		41.7	19.6	20.2
Thallium			mg/L		< 0.000010	< 0.000010	< 0.000010
Tin			mg/L		< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L		< 0.0050	< 0.0050	< 0.0050
Uranium			mg/L		0.00194	0.00032	0.00030
Vanadium			mg/L		< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L		< 0.0050	< 0.0050	< 0.0050
Zirconium			mg/L		0.00016	< 0.00010	< 0.00010

QAQC MEL-SR1 Parameter	Sample date		8/2/2021							
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank	Lab Blank
Conventional Parameters										
pH	pH units		6.30	-	8.18	8.20	0.24	-	6.30	-
Turbidity	NTU	0.1	0.1	0.1	0.3	0.3	0.00	0.00	0.1	0.1
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	429	427	0.47	-	0.5	-
Hardness, as CaCO3 (D)	mg/L	0.50	-	-	-	-	-	-	0.5	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	200	200	0.00	0.00	1	1.0
TDS	mg/L	10	10	10	670	620	7.75	0.00	70	10
TDS, calculated	mg/L	1.0	1	-	700	690	1.44	-	1	-
TSS	mg/L	1	1	1	1	1	0.00	0.00	1	1
Major Ions										
Chloride	mg/L	1.0	1	1.0	160	160	0.00	0.00	1	1.0
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Fluoride	mg/L	0.10	0.1	0.10	0.14	0.12	15.38	0.00	0.1	0.10
Silica	mg/L	0.050	0.05	0.050	2.7	2.9	7.14	0.00	0.05	0.050
Sulfate	mg/L	1.0	1	1.0	170	170	0.00	0.00	1	1.0
Nutrients and Chlorophyll a										
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.21	0.095	75.41	0.00	0.05	0.050
Nitrate	mg/L	0.10	0.1	0.10	0.14	0.14	0.00	0.00	0.1	0.10
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00	0.01	0.010
Nitrate + nitrite	mg/L	0.10	0.1	0.10	0.14	0.14	0.00	0.00	0.1	0.10
Total phosphorus	mg/L	0.020	0.02	0.020	0.02	0.02	0.00	0.00	0.032	0.020
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00	0.01	0.010
General Organics										
Total oil and grease	mg/L	0.50	0.5	0.50	0.5	0.5	0.00	0.00	0.5	0.50
Total Metals										
Aluminum	mg/L	0.0030	0.003	0.0030	0.0122	0.0140	13.74	0.00	0.003	0.0030
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00	0.0005	0.00050
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00264	0.00261	1.14	0.00	0.0001	0.00010
Barium	mg/L	0.0010	0.001	0.0010	0.0535	0.0522	2.46	0.00	0.001	0.0010
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010
Boron	mg/L	0.050	0.05	0.050	0.080	0.078	2.53	0.00	0.05	0.050
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000014	0.000014	0.00	0.00	0.00001	0.000010
Calcium (total)	mg/L	0.050	0.05	-	135	135	0.00	-	0.05	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00040	0.00041	2.47	0.00	0.0002	0.00020
Copper	mg/L	0.00050	0.0005	0.00050	0.00380	0.00388	2.08	0.00	0.0005	0.00050
Iron	mg/L	0.010	0.01	0.010	0.053	0.057	7.27	0.00	0.01	0.010
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.0002	0.00020
Lithium	mg/L	0.0020	0.002	0.0020	0.0263	0.0263	0.00	0.00	0.002	0.0020
Magnesium (total)	mg/L	0.050	0.05	-	22.0	22.1	0.45	-	0.05	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0111	0.0114	2.67	0.00	0.001	0.0010
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00	0.00001	0.00001
Molybdenum	mg/L	0.0010	0.001	0.0010	0.0010	0.001	0.00	0.00	0.001	0.0010
Nickel	mg/L	0.0010	0.001	0.0010	0.0148	0.0149	0.67	0.00	0.001	0.0010
Potassium (total)	mg/L	0.050	0.05	-	10.6	10.7	0.94	-	0.05	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.00010	0.00	0.00	0.0001	0.00010
Silicon	mg/L	0.10	0.1	0.10	1.30	1.30	0.00	0.00	0.1	0.10

QAQC MEL-SR1 Parameter	Sample date		8/2/2021							
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank	Lab Blank
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00	0.00002	0.000020
Sodium (total)	mg/L	0.050	0.05	-	77.8	80.1	2.91	-	0.05	0.050
Strontium	mg/L	0.0010	0.001	0.0010	0.824	0.801	2.83	0.00	0.001	0.0010
Sulphur	mg/L	3.0	3	3.0	57.2	58.8	2.76	0.00	3	3.0
Thallium	mg/L	0.000010	0.00001	0.000010	0.000011	0.000010	9.52	0.00	0.00001	0.000010
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Uranium	mg/L	0.00010	0.0001	0.00010	0.00262	0.00261	0.38	0.00	0.0001	0.00010
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Zinc	mg/L	0.0050	0.005	0.0050	0.0170	0.0172	1.17	0.00	0.005	0.0050
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010
Dissolved Metals										
Aluminum	mg/L	0.0030	0.003	0.0030	0.0038	0.0039	2.60	0.00	0.003	0.0030
Antimony	mg/L	0.00050	0.0005	0.00050	0.0005	0.0005	0.00	0.00	0.0005	0.00050
Arsenic	mg/L	0.00010	0.0001	0.00010	0.00250	0.00246	1.61	0.00	0.0001	0.00010
Barium	mg/L	0.0010	0.001	0.0010	0.0522	0.0522	0.00	0.00	0.001	0.0010
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010
Boron	mg/L	0.050	0.05	0.050	0.070	0.071	1.42	0.00	0.05	0.050
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000011	0.000014	24.00	0.00	0.00001	0.000010
Calcium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00020	0.00021	4.88	0.00	0.0002	0.00020
Copper	mg/L	0.00020	0.0002	0.00020	0.00338	0.00338	0.00	0.00	0.00053	0.00020
Iron	mg/L	0.0050	0.005	0.0050	0.0081	0.0078	3.77	0.00	0.005	0.0050
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00	0.0002	0.00020
Lithium	mg/L	0.0020	0.002	0.0020	0.0237	0.0238	0.42	0.00	0.002	0.0020
Magnesium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0039	0.0045	14.29	0.00	0.001	0.0010
Mercury	mg/L	0.000050	0.00005	0.000050	0.00005	0.00005	0.00	0.00	0.00005	0.000050
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00	0.001	0.0010
Nickel	mg/L	0.0010	0.001	0.0010	0.0137	0.0138	0.73	0.00	0.001	0.0010
Potassium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010
Silicon	mg/L	0.10	0.1	0.10	1.17	1.18	0.85	0.00	0.1	0.10
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00	0.00002	0.000020
Sodium (Dissolved)	mg/L	0.050	-	-	-	-	-	-	0.05	-
Strontium	mg/L	0.0010	0.001	0.0010	0.824	0.821	0.36	0.00	0.001	0.0010
Sulphur	mg/L	3.0	-	-	-	-	-	-	3	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.000011	0.000011	0.00	0.00	0.00001	0.000010
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Uranium	mg/L	0.00010	0.0001	0.00010	0.00241	0.00243	0.83	0.00	0.0001	0.00010
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00	0.005	0.0050
Zinc	mg/L	0.0050	0.005	0.0050	0.0135	0.0134	0.74	0.00	0.005	0.0050
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00010
% Exceedance*							0%	0%		

Footnotes:

QAQC MEL-SR1 Parameter	Sample date		8/2/2021								
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)	Field Blank	Lab Blank	

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

QAQC MEL-SR1 Parameter	Sample date		9/10/2021			
	Unit	MDL	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters						
pH	pH units		8.25	8.22	0.36	-
Turbidity	NTU	0.1	0.2	0.3	40.00	0.00
Hardness, as CaCO3 (T)	mg/L	0.50	392	418	6.42	-
Hardness, as CaCO3 (D)	mg/L	0.50	409	409	0.00	-
Total alkalinity, as CaCO3	mg/L	1.0	210	210	0.00	0.00
TDS	mg/L	10	655	630	3.89	150.00
TDS, calculated	mg/L	1.0	660	650	1.53	-
TSS	mg/L	1	1	2	66.67	0.00
Major Ions						
Chloride	mg/L	1.0	140	130	7.41	0.00
Cyanide	mg/L	0.0050	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.14	0.14	0.00	0.00
Silica	mg/L	0.050	1.8	1.7	5.71	0.00
Sulfate	mg/L	1.0	160	150	6.45	0.00
Nutrients and Chlorophyll a						
Ammonia Nitrogen	mg/L	0.050	0.05	0.05	0.00	0.00
Nitrate	mg/L	0.10	0.14	0.14	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.14	0.14	0.00	0.00
Total phosphorus	mg/L	0.020	0.02	0.02	0.00	46.15
Orthophosphate (P)	mg/L	0.010	0.01	0.01	0.00	0.00
General Organics						
Total oil and grease	mg/L	0.50	0.5	0.5	0.00	0.00
Total Metals						
Aluminum	mg/L	0.0030	0.0178	0.0152	15.76	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.00256	0.00273	6.43	0.00
Barium	mg/L	0.0010	0.0469	0.0499	6.20	0.00
Beryllium	mg/L	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.051	0.054	5.71	0.00
Cadmium	mg/L	0.000010	0.000013	0.000013	0.00	0.00
Calcium (total)	mg/L	0.050	125	132	5.45	-
Chromium	mg/L	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.00036	0.00038	5.41	0.00
Copper	mg/L	0.00050	0.00318	0.00342	7.27	0.00
Iron	mg/L	0.010	0.044	0.056	24.00	0.00
Lead	mg/L	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.0124	0.0130	4.72	0.00
Magnesium (total)	mg/L	0.050	19.5	21.1	7.88	-
Manganese	mg/L	0.0010	0.0100	0.0105	4.88	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.0012	0.0012	0.00	0.00
Nickel	mg/L	0.0010	0.0142	0.0157	10.03	0.00
Potassium (total)	mg/L	0.050	10.9	11.6	6.22	-
Selenium	mg/L	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.81	0.86	5.99	0.00

QAQC MEL-SR1 Parameter	Sample date		9/10/2021			
	Unit	MDL	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Silver	mg/L	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	68.8	73.4	6.47	0.00
Strontium	mg/L	0.0010	0.618	0.641	3.65	0.00
Sulphur	mg/L	3.0	53.0	56.7	6.75	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.00254	0.00269	5.74	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.0106	0.0105	0.95	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.00	0.00
Dissolved Metals						
Aluminum	mg/L	0.0030	0.0050	0.0051	1.98	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.00248	0.00251	1.20	0.00
Barium	mg/L	0.0010	0.0482	0.0473	1.88	0.00
Beryllium	mg/L	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.055	0.055	0.00	0.00
Cadmium	mg/L	0.000010	0.000012	0.00001	18.18	0.00
Calcium (Dissolved)	mg/L	0.050	129	128	0.78	-
Chromium	mg/L	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.00034	0.00034	0.00	0.00
Copper	mg/L	0.00020	0.00319	0.00325	1.86	90.41
Iron	mg/L	0.0050	0.0119	0.0123	3.31	0.00
Lead	mg/L	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.0131	0.0128	2.32	0.00
Magnesium (Dissolved)	mg/L	0.050	21.0	21.6	2.82	-
Manganese	mg/L	0.0010	0.0077	0.0078	1.29	0.00
Mercury	mg/L	0.000050	0.00005	0.00005	0.00	0.00
Molybdenum	mg/L	0.0010	0.0011	0.0011	0.00	0.00
Nickel	mg/L	0.0010	0.0152	0.0152	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	11.5	11.5	0.00	-
Selenium	mg/L	0.00010	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.10	0.84	0.82	2.41	0.00
Silver	mg/L	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	73.7	74.6	1.21	-
Strontium	mg/L	0.0010	0.635	0.632	0.47	0.00
Sulphur	mg/L	3.0	55.8	56.8	1.78	-
Thallium	mg/L	0.000010	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.00268	0.00263	1.88	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.0088	0.0088	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.00	0.00
% Exceedance*					0%	0%

Footnotes:

QAQC MEL-SR1 Parameter	Sample date		9/10/2021			
	Unit	MDL	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one samplir

Bold values correspond to a RPD higher than 20% and for which concentrat

Grey shaded cells correspond to a RPD higher than 20% and for which conc

Italic values correspond to a RPD higher than 20% and for which one of the

QAQC MEL-SR7 Parameter	Sample date		9/10/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.56	-	8.05	8.09	0.50	-
Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.00	0.00
Hardness, as CaCO3 (T)	mg/L	0.50	1.21	-	404	396	2.00	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	392	392	0.00	-
Total alkalinity, as CaCO3	mg/L	1.0	1.6	1.0	190	200	5.13	46.15
TDS	mg/L	10	10	10	635	655	3.10	0.00
TDS, calculated	mg/L	1.0	1.0	-	630	640	1.57	-
TSS	mg/L	1	1	1	1	2	66.67	0.00
Major Ions								
Chloride	mg/L	1.0	1	1.0	130	130	0.00	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	3.3	3.4	2.99	0.00
Sulfate	mg/L	1.0	1	1.0	160	160	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.068	0.05	30.51	0.00
Nitrate	mg/L	0.10	0.1	0.10	1.03	1.05	1.92	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	0.10	1.03	1.05	1.92	0.00
Total phosphorus	mg/L	0.020	0.025	0.020	0.030	0.023	26.42	22.22
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.01	0.01	0.00	0.00
General Organics								
Total oil and grease	mg/L	0.50	0.5	0.50	0.5	0.5	0.00	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.0273	0.0030	0.0098	0.0104	5.94	160.40
Antimony	mg/L	0.00050	0.0005	0.00050	0.00058	0.00058	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.0161	0.0160	0.62	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0427	0.0417	2.37	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000050	0.000058	14.81	0.00
Calcium (total)	mg/L	0.050	0.484	-	129	126	2.35	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00462	0.00456	1.31	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.00940	0.00937	0.32	0.00
Iron	mg/L	0.010	0.01	0.010	0.055	0.039	34.04	0.00

QAQC MEL-SR7 Parameter	Sample date		9/10/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0125	0.0122	2.43	0.00
Magnesium (total)	mg/L	0.050	0.05	-	20.0	19.7	1.51	-
Manganese	mg/L	0.0010	0.001	0.0010	0.0065	0.0067	3.03	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0293	0.0291	0.68	0.00
Potassium (total)	mg/L	0.050	0.05	-	9.68	9.50	1.88	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00016	0.00015	6.45	0.00
Silicon	mg/L	0.10	0.1	0.10	1.68	1.62	3.64	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (total)	mg/L	0.050	0.149	-	72.0	70.2	2.53	-
Strontium	mg/L	0.0010	0.001	0.0010	0.514	0.515	0.19	0.00
Sulphur	mg/L	3.0	3	3.0	57.1	56.0	1.95	0.00
Thallium	mg/L	0.000010	0.00001	0.000010	0.000011	0.000012	8.70	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00279	0.00278	0.36	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.0074	0.0067	9.93	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.00019	0.00018	5.41	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.0042	0.0044	4.65	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.00056	0.00058	3.51	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.0152	0.0154	1.31	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.0403	0.0413	2.45	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.000048	0.000049	2.06	0.00
Calcium (Dissolved)	mg/L	0.050	0.05	-	124	123	0.81	-
Chromium	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.00446	0.00466	4.39	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.00897	0.00902	0.56	0.00
Iron	mg/L	0.0050	0.005	0.0050	0.0144	0.0143	0.70	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.0120	0.0121	0.83	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	20.1	20.4	1.48	-

QAQC MEL-SR7 Parameter	Sample date		9/10/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Manganese	mg/L	0.0010	0.001	0.0010	0.0059	0.0063	6.56	0.00
Mercury	mg/L	0.000050	0.00005	0.000050	0.00005	0.00005	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.0286	0.0294	2.76	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	9.53	9.74	2.18	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.00017	0.00017	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	1.51	1.54	1.97	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.00002	0.00002	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	71.7	74.4	3.70	-
Strontium	mg/L	0.0010	0.001	0.0010	0.506	0.510	0.79	0.00
Sulphur	mg/L	3.0	3	-	56.0	57.3	2.29	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.000012	0.000012	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.00278	0.00281	1.07	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.0052	0.0053	1.90	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.00018	0.00018	0.00	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MWE-1	Sample date	4/17/2021
Parameter	Units	
Field Measured		
Temperature	°C	-0.61
pH	pH units	7.47
Conductivity	uS/cm	53920
Dissolved oxygen	mg/L	11.73
Dissolved oxygen	%	99.9
Conventional Parameters		
pH (for salinity in water)	pH units	7.85
Hardness, as CaCO3 (T)	mg/L	5990
Hardness, as CaCO3 (D)	mg/L	6190
Major Ions		
Chloride (for salinity in water)	mg/L	20000
Nutrients and Chlorophyll a		
Total phosphorus	mg/L	< 0.05
Dissolved phosphorus	mg/L	< 0.05
Total Metals		
Aluminum	mg/L	< 0.01
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00140
Barium	mg/L	0.0086
Bismuth	mg/L	< 0.0010
Boron	mg/L	4.4
Cadmium	mg/L	< 0.000050
Calcium (total)	mg/L	388
Chromium	mg/L	< 0.00050
Cobalt	mg/L	0.00013
Copper	mg/L	0.00091
Iron	mg/L	< 0.01
Lanthanum	mg/L	< 0.00050
Lead	mg/L	0.00013
Magnesium (total)	mg/L	1220
Manganese	mg/L	< 0.00050
Molybdenum	mg/L	0.0079
Nickel	mg/L	0.00071
Potassium (total)	mg/L	378
Selenium	mg/L	< 0.00050
Silver	mg/L	< 0.000050

MWE-1	Sample date	4/17/2021
Parameter	Units	
Strontium	mg/L	8.04
Sulphur	mg/L	859
Thallium	mg/L	< 0.00010
Titanium	mg/L	< 0.01
Uranium	mg/L	0.00281
Zinc	mg/L	< 0.0050
Dissolved Metals		
Aluminum	mg/L	< 0.01
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00122
Barium	mg/L	0.0096
Bismuth	mg/L	< 0.0010
Boron	mg/L	4.63
Cadmium	mg/L	0.000051
Calcium (Dissolved)	mg/L	409
Chromium	mg/L	< 0.00050
Cobalt	mg/L	0.00012
Copper	mg/L	< 0.00050
Iron	mg/L	< 0.01
Lanthanum	mg/L	< 0.00050
Lead	mg/L	< 0.00010
Magnesium (Dissolved)	mg/L	1260
Manganese	mg/L	< 0.00050
Molybdenum	mg/L	0.0074
Nickel	mg/L	0.00071
Potassium (Dissolved)	mg/L	383
Selenium	mg/L	< 0.00050
Silver	mg/L	< 0.000050
Strontium	mg/L	7.99
Sulphur	mg/L	867
Thallium	mg/L	< 0.00010
Titanium	mg/L	< 0.01
Uranium	mg/L	0.00283
Zinc	mg/L	< 0.0050

MWE-1 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.91	7.89
pH (for salinity in water)	pH units	7.89	7.91
Dissolved Oxygen	mg/L	10.6	10.7
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5120	4820
Hardness, as CaCO3 (D)	mg/L	5010	4990
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	110	100
TDS	mg/L	31000	29600
TDS, calculated (for salinity in water)	mg/L	45000	45000
TSS	mg/L	5	< 2.0
Total organic carbon	mg/L	1.4	1.2
Dissolved organic carbon	mg/L	1.3	1.1
Sodium Adsorption Ratio (salinity in water)	-	51	57
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	-
Chloride (for salinity in water)	mg/L	16000	15000
Chloride	mg/L	15000	13000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0045	-
Cyanide (WAD)	mg/L	0.0030	-
Fluoride	mg/L	0.66	0.62
Magnesium (element - for salinity in water)	mg/L	1200	1100
Potassium (element - for salinity in water)	mg/L	340	340
Silica	mg/L	0.19	0.25
Sodium (element - for salinity in water)	mg/L	8900	-
Sulfate	mg/L	2200	2200
Sulphate (for salinity in water)	mg/L	2300	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.17	0.095
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.17	0.37
Total phosphorus (SM4500-PBF)	mg/L	0.063	0.061
Total phosphorus (SW6020)	mg/L	-	0.043
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	< 0.010	0.014
Total Metals			
Aluminum	mg/L	< 0.15	0.023
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	0.0102	0.00185
Barium	mg/L	< 0.050	0.00876
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.65
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	338	339
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.13	0.141
Magnesium (total)	mg/L	1040	965

MWE-1 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0092
Nickel	mg/L	< 0.050	0.00071
Potassium (total)	mg/L	320	308
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8570	8130
Strontium	mg/L	6.69	6.82
Sulphur	mg/L	796	775
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00263
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0052
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.012
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00208
Barium	mg/L	< 0.050	0.00908
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.6	3.73
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	342	350
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.143
Magnesium (Dissolved)	mg/L	1010	999
Manganese	mg/L	< 0.050	0.0016
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0096
Nickel	mg/L	< 0.050	0.00050
Potassium (Dissolved)	mg/L	312	318
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8410	8390
Strontium	mg/L	6.90	7.04
Sulphur	mg/L	791	786
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00275
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0035
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWE-1 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.90	7.87
pH (for salinity in water)	pH units	7.89	7.88
Dissolved Oxygen	mg/L	10.7	10.4
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5360	5130
Hardness, as CaCO3 (D)	mg/L	5070	5210
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	30800	30400
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	9	< 2.0
Total organic carbon	mg/L	1.3	1.1
Dissolved organic carbon	mg/L	1.3	1.1
Sodium Adsorption Ratio (salinity in water)	-	51	51
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	290
Chloride (for salinity in water)	mg/L	16000	15000
Chloride	mg/L	16000	13000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0022	-
Cyanide (WAD)	mg/L	0.0034	-
Fluoride	mg/L	0.65	0.63
Magnesium (element - for salinity in water)	mg/L	1200	900
Potassium (element - for salinity in water)	mg/L	340	280
Silica	mg/L	0.21	0.92
Sodium (element - for salinity in water)	mg/L	8900	7800
Sulfate	mg/L	2100	2300
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.21	0.11
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.010
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	< 0.10	0.21
Total phosphorus (SM4500-PBF)	mg/L	0.049	0.057
Total phosphorus (SW6020)	mg/L	-	0.047
Dissolved phosphorus (SW6020)	mg/L	-	0.053
Orthophosphate (P)	mg/L	0.011	0.017
Total Metals			
Aluminum	mg/L	< 0.15	0.024
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	0.0051	0.00221
Barium	mg/L	< 0.050	0.00998
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.8	4
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	350	363
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.14	0.151
Magnesium (total)	mg/L	1090	1030

MWE-1 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0096
Nickel	mg/L	< 0.050	< 0.00040
Potassium (total)	mg/L	337	329
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8860	8830
Strontium	mg/L	6.97	7.44
Sulphur	mg/L	797	833
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00272
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0040
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.013
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00188
Barium	mg/L	< 0.050	0.00923
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.93
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	343	359
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.148
Magnesium (Dissolved)	mg/L	1020	1050
Manganese	mg/L	< 0.050	0.0012
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0096
Nickel	mg/L	< 0.050	0.00072
Potassium (Dissolved)	mg/L	323	328
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8690	8720
Strontium	mg/L	7.21	7.13
Sulphur	mg/L	783	824
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00282
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0045
Zirconium	mg/L	< 0.0050	0.0026
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

Parameter QAQC MWE-1 Surface	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.68	-	7.87	7.89	0.25	-
pH (for salinity in water)	pH units		7.20	-	7.91	7.91	0.00	-
Dissolved Oxygen	mg/L		10.3	-	10.5	10.7	1.89	-
Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.00	0.00
Specific conductivity (for salinity in water)	uS/cm	2.0	2	2.0	45000	45000	0.00	0.00
Specific conductivity	umhos/cm	1.0	3.3	1.0	42000	42000	0.00	106.98
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	5100	4820	5.65	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	5060	4990	1.39	-
Total alkalinity, as CaCO3	mg/L	1.0	1.1	1.0	100	100	0.00	9.52
Bicarbonate, as CaCO3	mg/L	1.0	1.1	-	100	100	0.00	-
TDS	mg/L	10	10	10	28200	29600	4.84	0.00
TDS, calculated (for salinity in water)	mg/L	10	10	-	45000	45000	0.00	-
TSS	mg/L	2.0	2	2.0	2	2	0.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	1.2	1.2	0.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	1.1	1.1	0.00	0.00
Sodium Adsorption Ratio (salinity in water)	-	0.10	0.82	-	49	57	15.09	-
Major Ions								
Calcium (element - for salinity in water)	mg/L	0.30	0.3	0.30	-	-	-	0.00
Chloride (for salinity in water)	mg/L	1.0	1	1.0	16000	15000	6.45	0.00
Chloride	mg/L	1.0	1	1.0	15000	13000	14.29	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.61	0.62	1.63	0.00
Magnesium (element - for salinity in water)	mg/L	0.20	0.22	0.20	1100	1100	0.00	9.52
Potassium (element - for salinity in water)	mg/L	0.30	0.3	0.30	340	340	0.00	0.00
Silica	mg/L	0.050	0.05	0.050	0.21	0.25	17.39	0.00
Sodium (element - for salinity in water)	mg/L	0.50	1.8	0.50	-	-	-	113.04
Sulfate	mg/L	1.0	1	1.0	2200	2200	0.00	0.00
Sulphate (for salinity in water)	mg/L	1.0	1	1.0	2200	2200	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.11	0.095	14.63	0.00
Nitrate	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.05	0.05	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.68	0.37	59.05	0.00
Total phosphorus	mg/L	0.020	0.04	0.020	0.060	0.061	1.65	66.67
Total phosphorus	mg/L	0.002	0.002	0.002	0.04	0.043	7.23	0.00
Dissolved phosphorus	mg/L	0.002	0.002	0.002	0.049	0.04	20.22	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.014	0.014	0.00	0.00
Total Metals								
Aluminum	mg/L	0.00050	0.00107	0.00050	0.022	0.023	4.44	72.61
Antimony	mg/L	0.000020	0.00002	0.000020	0.0004	0.0004	0.00	0.00
Arsenic	mg/L	0.000020	0.00002	0.000020	0.00213	0.00185	14.07	0.00
Barium	mg/L	0.000020	0.00002	0.000020	0.00979	0.00876	11.11	0.00
Beryllium	mg/L	0.000010	0.00001	0.000010	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Boron	mg/L	0.01	0.01	0.01	4.07	3.65	10.88	0.00
Cadmium	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Calcium (total)	mg/L	0.010	0.05	-	358	339	5.45	-
Chromium	mg/L	0.00010	0.0001	0.00010	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.0000050	0.000005	0.0000050	0.00011	0.0001	9.52	0.00
Copper	mg/L	0.000050	0.000466	0.000050	0.001	0.001	0.00	161.24
Iron	mg/L	0.0010	0.001	0.0010	0.02	0.02	0.00	0.00
Lead	mg/L	0.0000050	0.0000489	0.0000050	0.0001	0.0001	0.00	162.89
Lithium	mg/L	0.00050	0.0005	0.00050	0.149	0.141	5.52	0.00
Magnesium (total)	mg/L	0.010	0.05	-	1020	965	5.54	-
Manganese	mg/L	0.000050	0.00005	0.000050	0.0011	0.001	9.52	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.000050	0.00005	0.000050	0.0105	0.0092	13.20	0.00
Nickel	mg/L	0.000020	0.000451	0.000020	0.00042	0.00071	51.33	183.01
Potassium (total)	mg/L	0.010	0.05	-	331	308	7.20	-
Selenium	mg/L	0.000040	0.00004	0.000040	0.0008	0.0008	0.00	0.00
Silicon	mg/L	0.05	0.05	0.05	1	1	0.00	0.00
Silver	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Sodium (total)	mg/L	0.010	0.05	-	8590	8130	5.50	-
Strontium	mg/L	0.000050	0.00005	0.000050	7.36	6.82	7.62	0.00
Sulphur	mg/L	0.60	3	-	823	775	6.01	-
Thallium	mg/L	0.0000020	0.000002	0.0000020	0.00004	0.00004	0.00	0.00
Tin	mg/L	0.000020	0.0002	0.00020	0.004	0.004	0.00	0.00
Titanium	mg/L	0.00050	0.0005	0.00050	0.01	0.01	0.00	0.00
Uranium	mg/L	0.0000020	0.000002	0.0000020	0.00263	0.00263	0.00	0.00
Vanadium	mg/L	0.00020	0.0002	0.00020	0.004	0.004	0.00	0.00

Parameter QAQC MWE-1 Surface	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Zinc	mg/L	0.00010	0.00144	0.00010	0.0075	0.0052	36.22	174.03
Zirconium	mg/L	0.00010	0.0001	0.00010	0.002	0.002	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.00050	0.00120	0.00050	0.036	0.012	100.00	82.35
Antimony	mg/L	0.000020	0.00002	0.000020	0.0004	0.0004	0.00	0.00
Arsenic	mg/L	0.000020	0.00002	0.000020	0.00204	0.00208	1.94	0.00
Barium	mg/L	0.000020	0.00002	0.000020	0.0100	0.00908	9.64	0.00
Beryllium	mg/L	0.000010	0.00001	0.000010	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Boron	mg/L	0.01	0.01	0.01	3.88	3.73	3.94	0.00
Cadmium	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Calcium (Dissolved)	mg/L	0.010	0.05	-	355	350	1.42	-
Chromium	mg/L	0.00010	0.0001	0.00010	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Copper	mg/L	0.000050	0.000065	0.000050	0.001	0.001	0.00	26.09
Iron	mg/L	0.0010	0.001	0.0010	0.02	0.02	0.00	0.00
Lead	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Lithium	mg/L	0.00050	0.0005	0.00050	0.149	0.143	4.11	0.00
Magnesium (Dissolved)	mg/L	0.010	0.05	-	1010	999	1.10	-
Manganese	mg/L	0.000050	0.00005	0.000050	0.0013	0.0016	20.69	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.000050	0.00005	0.000050	0.0099	0.0096	3.08	0.00
Nickel	mg/L	0.000020	0.000059	0.000020	0.0004	0.00050	22.22	98.73
Potassium (Dissolved)	mg/L	0.010	0.05	-	327	318	2.79	-
Selenium	mg/L	0.000040	0.00004	0.000040	0.0008	0.0008	0.00	0.00
Silicon	mg/L	0.05	0.05	0.05	1	1	0.00	0.00
Silver	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Sodium (Dissolved)	mg/L	0.010	0.05	-	8450	8390	0.71	-
Strontium	mg/L	0.000050	0.00005	0.000050	7.34	7.04	4.17	0.00
Sulphur	mg/L	0.60	3	-	834	786	5.93	-
Thallium	mg/L	0.0000020	0.000002	0.0000020	0.00004	0.00004	0.00	0.00
Tin	mg/L	0.00020	0.0002	0.00020	0.004	0.004	0.00	0.00
Titanium	mg/L	0.00050	0.0005	0.00050	0.01	0.01	0.00	0.00
Uranium	mg/L	0.0000020	0.000002	0.0000020	0.00269	0.00275	2.21	0.00
Vanadium	mg/L	0.00020	0.0002	0.00020	0.004	0.004	0.00	0.00
Zinc	mg/L	0.00010	0.00033	0.00010	0.0091	0.0035	88.89	106.98
Zirconium	mg/L	0.00010	0.0001	0.00010	0.0044	0.002	75.00	0.00
Radionuclides								
Radium-226	Bq/l	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
% Exceedance*							8%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MWE-2 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.81	7.82
pH (for salinity in water)	pH units	7.71	7.90
Dissolved Oxygen	mg/L	10.9	10.8
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	45000	45000
Specific conductivity	umhos/cm	42000	42000
Hardness, as CaCO3 (T)	mg/L	4970	5080
Hardness, as CaCO3 (D)	mg/L	4850	4910
Total alkalinity, as CaCO3	mg/L	100	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	26100	29700
TDS, calculated (for salinity in water)	mg/L	44000	45000
TSS	mg/L	7	2.9
Total organic carbon	mg/L	1.4	1.2
Dissolved organic carbon	mg/L	1.3	1.2
Sodium Adsorption Ratio (salinity in water)	-	51	48
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	280
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	14000	13000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0052	-
Cyanide (WAD)	mg/L	0.0030	-
Fluoride	mg/L	0.65	0.62
Magnesium (element - for salinity in water)	mg/L	1100	880
Potassium (element - for salinity in water)	mg/L	340	270
Silica	mg/L	0.20	0.22
Sodium (element - for salinity in water)	mg/L	8700	7300
Sulfate	mg/L	1900	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.14	0.11
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	< 0.10	0.34
Total phosphorus (SM4500-PBF)	mg/L	0.049	0.061
Total phosphorus (SW6020)	mg/L	-	0.042
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.014	0.014
Total Metals			
Aluminum	mg/L	< 0.15	0.02
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00204
Barium	mg/L	< 0.050	0.00932
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	4.06
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	330	358
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00012
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.14	0.15
Magnesium (total)	mg/L	1010	1020

MWE-2 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0099
Nickel	mg/L	< 0.050	< 0.00040
Potassium (total)	mg/L	305	326
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8140	8380
Strontium	mg/L	6.50	7.45
Sulphur	mg/L	738	816
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00284
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0074
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.012
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00177
Barium	mg/L	< 0.050	0.00897
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.6	3.92
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	335	349
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.14	0.146
Magnesium (Dissolved)	mg/L	975	980
Manganese	mg/L	< 0.050	0.0012
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0099
Nickel	mg/L	< 0.050	0.00057
Potassium (Dissolved)	mg/L	307	320
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8250	8380
Strontium	mg/L	6.78	7.25
Sulphur	mg/L	724	797
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00270
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0046
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWE-2 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.92	7.88
pH (for salinity in water)	pH units	7.90	7.87
Dissolved Oxygen	mg/L	10.7	10.5
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	45000	44000
Specific conductivity	umhos/cm	44000	42000
Hardness, as CaCO3 (T)	mg/L	5420	5130
Hardness, as CaCO3 (D)	mg/L	5110	5080
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	31000	30000
TDS, calculated (for salinity in water)	mg/L	45000	44000
TSS	mg/L	7	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.3	1.2
Sodium Adsorption Ratio (salinity in water)	-	53	50
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	290
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	15000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0027	-
Cyanide (WAD)	mg/L	0.0028	-
Fluoride	mg/L	0.66	0.62
Magnesium (element - for salinity in water)	mg/L	1200	900
Potassium (element - for salinity in water)	mg/L	350	270
Silica	mg/L	0.20	0.38
Sodium (element - for salinity in water)	mg/L	9300	7700
Sulfate	mg/L	2100	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.14	0.10
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.25	0.33
Total phosphorus (SM4500-PBF)	mg/L	0.050	0.057
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	0.045
Orthophosphate (P)	mg/L	0.011	0.012
Total Metals			
Aluminum	mg/L	< 0.15	0.018
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00196
Barium	mg/L	< 0.050	0.00936
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.3	3.96
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	365	363
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.15
Magnesium (total)	mg/L	1100	1030

MWE-2 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0102
Nickel	mg/L	< 0.050	0.00053
Potassium (total)	mg/L	335	327
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8850	8420
Strontium	mg/L	7.46	7.35
Sulphur	mg/L	887	832
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00285
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0037
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.012
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00208
Barium	mg/L	< 0.050	0.00983
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	4.08
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	341	358
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00012
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.15
Magnesium (Dissolved)	mg/L	1030	1020
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0097
Nickel	mg/L	< 0.050	0.00061
Potassium (Dissolved)	mg/L	318	326
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8680	8420
Strontium	mg/L	7.02	7.18
Sulphur	mg/L	808	836
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00278
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0032
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	0.016

WS SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.89	7.86
pH (for salinity in water)	pH units	7.89	7.91
Dissolved Oxygen	mg/L	10.7	10.3
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	45000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5500	5160
Hardness, as CaCO3 (D)	mg/L	4970	5060
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	26400	30700
TDS, calculated (for salinity in water)	mg/L	45000	45000
TSS	mg/L	7	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	53
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	380
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	16000	13000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0022	-
Cyanide (WAD)	mg/L	0.0028	-
Fluoride	mg/L	0.65	0.61
Magnesium (element - for salinity in water)	mg/L	1200	1300
Potassium (element - for salinity in water)	mg/L	340	360
Silica	mg/L	0.22	0.20
Sodium (element - for salinity in water)	mg/L	9200	9500
Sulfate	mg/L	2100	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.11	0.090
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.010
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.14	0.41
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.048
Total phosphorus (SW6020)	mg/L	-	0.041
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.012	0.016
Total Metals			
Aluminum	mg/L	< 0.15	0.016
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00203
Barium	mg/L	< 0.050	0.0100
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.5	4.05
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	358	361
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.19	0.151
Magnesium (total)	mg/L	1120	1030

WS SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0103
Nickel	mg/L	< 0.050	0.00051
Potassium (total)	mg/L	337	329
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8790	8550
Strontium	mg/L	7.46	7.39
Sulphur	mg/L	846	843
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	0.0052
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00280
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0029
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.013
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00195
Barium	mg/L	< 0.050	0.00957
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.92
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	337	354
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00012
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.147
Magnesium (Dissolved)	mg/L	1000	1010
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0101
Nickel	mg/L	< 0.050	0.00073
Potassium (Dissolved)	mg/L	317	323
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8520	8590
Strontium	mg/L	6.93	6.92
Sulphur	mg/L	812	791
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00269
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0033
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

WS DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.91	7.85
pH (for salinity in water)	pH units	7.89	7.84
Dissolved Oxygen	mg/L	10.5	10.9
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5290	4820
Hardness, as CaCO3 (D)	mg/L	5030	5040
Total alkalinity, as CaCO3	mg/L	100	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	29100	30600
TDS, calculated (for salinity in water)	mg/L	45000	45000
TSS	mg/L	4	< 2.0
Total organic carbon	mg/L	1.3	1.1
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	55
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	370
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	15000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0047	-
Cyanide (WAD)	mg/L	0.0023	-
Fluoride	mg/L	0.66	0.62
Magnesium (element - for salinity in water)	mg/L	1200	1200
Potassium (element - for salinity in water)	mg/L	340	350
Silica	mg/L	0.27	0.22
Sodium (element - for salinity in water)	mg/L	9000	9700
Sulfate	mg/L	2200	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.091	0.11
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	< 0.10	0.29
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.045
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	0.049
Orthophosphate (P)	mg/L	0.014	0.018
Total Metals			
Aluminum	mg/L	< 0.15	0.018
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00162
Barium	mg/L	< 0.050	0.00850
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.2	3.76
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	355	339
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.141
Magnesium (total)	mg/L	1070	964

WS DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0091
Nickel	mg/L	< 0.050	0.00050
Potassium (total)	mg/L	326	309
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8550	8060
Strontium	mg/L	7.27	6.98
Sulphur	mg/L	809	785
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00263
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0027
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.018
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00195
Barium	mg/L	< 0.050	0.0111
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.83
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	342	352
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.148
Magnesium (Dissolved)	mg/L	1010	1010
Manganese	mg/L	< 0.050	0.0012
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0094
Nickel	mg/L	< 0.050	< 0.00040
Potassium (Dissolved)	mg/L	321	325
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8570	8650
Strontium	mg/L	7.00	7.09
Sulphur	mg/L	826	812
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00274
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0034
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

Parameter QAQC-WS Surface	Sample date		8/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.70	-	7.87	7.89	0.25	-
pH (for salinity in water)	pH units		6.23	-	7.88	7.89	0.13	-
Dissolved Oxygen	mg/L		11.0	-	10.8	10.7	0.93	-
Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.00	0.00
Specific conductivity (for salinity in water)	uS/cm	2.0	2	2.0	45000	45000	0.00	0.00
Specific conductivity	umhos/cm	1.0	1.6	1.0	43000	43000	0.00	46.15
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	5410	5500	1.65	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	5050	4970	1.60	-
Total alkalinity, as CaCO3	mg/L	1.0	1.5	1.0	100	110	9.52	40.00
Bicarbonate, as CaCO3	mg/L	1.0	1.5	-	100	100	0.00	-
TDS	mg/L	10	10	10	31000	26400	16.03	0.00
TDS, calculated (for salinity in water)	mg/L	10	10	-	45000	45000	0.00	-
TSS	mg/L	1	1	1	-	7	-	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	1.3	1.3	0.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	1.2	1.2	0.00	0.00
Sodium Adsorption Ratio (salinity in water)	-	0.10	NC	-	52	52	0.00	-
Major Ions								
Calcium (element - for salinity in water)	mg/L	0.30	0.3	0.30	360	360	0.00	0.00
Chloride (for salinity in water)	mg/L	1.0	1	1.0	15000	15000	0.00	0.00
Chloride	mg/L	1.0	1	1.0	14000	16000	13.33	0.00
Cyanide	mg/L	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
Cyanide (free)	mg/L	0.001	0.001	0.001	0.0029	0.0022	27.45	0.00
Cyanide (WAD)	mg/L	0.0010	0.0010	0.0010	0.0016	0.0028	54.55	0.00
Fluoride	mg/L	0.10	0.1	0.10	0.67	0.65	3.03	0.00
Magnesium (element - for salinity in water)	mg/L	0.20	0.2	0.20	1200	1200	0.00	0.00
Potassium (element - for salinity in water)	mg/L	0.30	0.3	0.30	350	340	2.90	0.00
Silica	mg/L	0.050	0.05	0.050	0.19	0.22	14.63	0.00
Sodium (element - for salinity in water)	mg/L	0.50	0.5	0.50	9000	9200	2.20	0.00
Sulfate	mg/L	1.0	1	1.0	2100	2100	0.00	0.00
Sulphate (for salinity in water)	mg/L	1.0	1	1.0	2200	2200	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.079	0.050	0.071	0.11	43.09	44.96
Nitrate	mg/L	0.10	0.1	0.10	0.2	0.2	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.02	0.02	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.2	0.2	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.1	0.14	33.33	0.00
Total phosphorus	mg/L	0.020	0.02	0.020	0.04	0.04	0.00	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.016	0.012	28.57	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.15	0.15	0.00	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.025	0.025	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	4.3	4.5	4.55	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Calcium (total)	mg/L	0.050	0.05	-	363	358	1.39	-
Chromium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.025	0.025	0.00	0.00
Iron	mg/L	0.010	0.01	0.010	0.5	0.5	0.00	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.19	0.19	0.00	0.00
Magnesium (total)	mg/L	0.050	0.05	-	1090	1120	2.71	-
Manganese	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	337	337	0.00	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	5	5	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.001	0.001	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	8620	8790	1.95	-
Strontium	mg/L	0.0010	0.001	0.0010	7.61	7.46	1.99	0.00
Sulphur	mg/L	3.0	3	-	885	846	4.51	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00

Parameter QAQC-WS Surface	Sample date		8/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Zinc	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.15	0.15	0.00	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.025	0.025	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	3.7	3.7	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	0.05	-	339	337	0.59	-
Chromium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Iron	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.15	0.15	0.00	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	1020	1000	1.98	-
Manganese	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	314	317	0.95	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	5	5	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.001	0.001	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	8620	8520	1.17	-
Strontium	mg/L	0.0010	0.001	0.0010	6.87	6.93	0.87	0.00
Sulphur	mg/L	3.0	3	-	757	812	7.01	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Radionuclides								
Radium-226	Bq/l	0.0050	0.005	0.0050	0.023	0.005	128.57	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MBE-1 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.90	7.88
pH (for salinity in water)	pH units	7.88	7.91
Dissolved Oxygen	mg/L	10.7	10.7
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	45000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5350	5180
Hardness, as CaCO3 (D)	mg/L	4940	5090
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	110	100
TDS	mg/L	28300	28300
TDS, calculated (for salinity in water)	mg/L	45000	45000
TSS	mg/L	4	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.3	1.2
Sodium Adsorption Ratio (salinity in water)	-	53	51
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	290
Chloride (for salinity in water)	mg/L	16000	16000
Chloride	mg/L	15000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0036	-
Cyanide (WAD)	mg/L	0.0012	-
Fluoride	mg/L	0.66	0.62
Magnesium (element - for salinity in water)	mg/L	1100	900
Potassium (element - for salinity in water)	mg/L	350	280
Silica	mg/L	0.20	0.20
Sodium (element - for salinity in water)	mg/L	9100	7800
Sulfate	mg/L	2100	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.072	0.090
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.010
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	< 0.10	0.60
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.051
Total phosphorus (SW6020)	mg/L	-	0.051
Dissolved phosphorus (SW6020)	mg/L	-	0.041
Orthophosphate (P)	mg/L	0.017	0.015
Total Metals			
Aluminum	mg/L	< 0.15	0.017
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00212
Barium	mg/L	< 0.050	0.00942
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.2	4.12
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	353	363
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.19	0.153
Magnesium (total)	mg/L	1090	1040

MBE-1 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0100
Nickel	mg/L	< 0.050	0.00095
Potassium (total)	mg/L	333	330
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8590	8710
Strontium	mg/L	7.40	7.42
Sulphur	mg/L	863	832
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00284
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0042
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.012
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00179
Barium	mg/L	< 0.050	0.00904
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.6	3.98
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	340	350
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00011
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.148
Magnesium (Dissolved)	mg/L	993	1020
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0097
Nickel	mg/L	< 0.050	0.00060
Potassium (Dissolved)	mg/L	316	323
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8450	8600
Strontium	mg/L	7.02	7.23
Sulphur	mg/L	790	832
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00283
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0049
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MBE-1 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.84	7.85
pH (for salinity in water)	pH units	7.89	7.87
Dissolved Oxygen	mg/L	10.6	10.5
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	43000	43000
Hardness, as CaCO3 (T)	mg/L	5480	4950
Hardness, as CaCO3 (D)	mg/L	4920	5040
Total alkalinity, as CaCO3	mg/L	100	110
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	30500	30400
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	16	< 2.0
Total organic carbon	mg/L	1.3	1.1
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	51
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	300
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	16000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0034	-
Cyanide (WAD)	mg/L	0.0011	-
Fluoride	mg/L	0.64	0.64
Magnesium (element - for salinity in water)	mg/L	1200	920
Potassium (element - for salinity in water)	mg/L	350	280
Silica	mg/L	0.37	0.24
Sodium (element - for salinity in water)	mg/L	9100	7900
Sulfate	mg/L	2100	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.12	0.19
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	0.012
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.14	0.36
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.042
Total phosphorus (SW6020)	mg/L	-	0.042
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.014	0.017
Total Metals			
Aluminum	mg/L	< 0.15	0.043
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00201
Barium	mg/L	< 0.050	0.00907
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.3	3.88
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	363	352
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00012
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.19	0.146
Magnesium (total)	mg/L	1110	988

MBE-1 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	0.0016
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0098
Nickel	mg/L	< 0.050	0.00066
Potassium (total)	mg/L	336	321
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8750	8450
Strontium	mg/L	7.52	7.19
Sulphur	mg/L	835	798
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00274
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0062
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.015	0.018
Antimony	mg/L	< 0.0025	< 0.00040
Arsenic	mg/L	0.00172	0.00184
Barium	mg/L	0.0095	0.00948
Beryllium	mg/L	< 0.00050	< 0.00020
Bismuth	mg/L	< 0.0050	< 0.00010
Boron	mg/L	2.78	3.91
Cadmium	mg/L	< 0.000050	< 0.00010
Calcium (Dissolved)	mg/L	376	359
Chromium	mg/L	< 0.0050	< 0.0020
Cobalt	mg/L	< 0.0010	< 0.00010
Copper	mg/L	< 0.0010	< 0.0010
Iron	mg/L	< 0.025	< 0.02
Lead	mg/L	< 0.0010	< 0.00010
Lithium	mg/L	0.137	0.149
Magnesium (Dissolved)	mg/L	966	1010
Manganese	mg/L	< 0.0050	0.0012
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0108	0.0099
Nickel	mg/L	< 0.0050	0.00062
Potassium (Dissolved)	mg/L	326	321
Selenium	mg/L	< 0.00050	< 0.00080
Silicon	mg/L	< 0.50	< 1
Silver	mg/L	< 0.00010	< 0.00010
Sodium (Dissolved)	mg/L	8510	8420
Strontium	mg/L	8.06	7.33
Sulphur	mg/L	796	801
Thallium	mg/L	< 0.000050	< 0.000040
Tin	mg/L	< 0.025	< 0.0040
Titanium	mg/L	< 0.025	< 0.01
Uranium	mg/L	0.00294	0.00281
Vanadium	mg/L	< 0.025	< 0.0040
Zinc	mg/L	< 0.025	0.0061
Zirconium	mg/L	< 0.00050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MBE-2 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.95	7.87
pH (for salinity in water)	pH units	7.89	7.87
Dissolved Oxygen	mg/L	10.8	10.4
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5260	5080
Hardness, as CaCO3 (D)	mg/L	5080	4910
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	110	100
TDS	mg/L	30800	29000
TDS, calculated (for salinity in water)	mg/L	46000	44000
TSS	mg/L	4	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	53
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	330
Chloride (for salinity in water)	mg/L	16000	16000
Chloride	mg/L	16000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0025	-
Cyanide (WAD)	mg/L	0.0013	-
Fluoride	mg/L	0.66	0.62
Magnesium (element - for salinity in water)	mg/L	1200	1200
Potassium (element - for salinity in water)	mg/L	350	330
Silica	mg/L	0.25	0.22
Sodium (element - for salinity in water)	mg/L	9000	9400
Sulfate	mg/L	2200	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.10	0.11
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.010
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.15	0.28
Total phosphorus (SM4500-PBF)	mg/L	0.044	< 0.040
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.012	0.014
Total Metals			
Aluminum	mg/L	< 0.15	0.019
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00203
Barium	mg/L	< 0.050	0.00946
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.2	3.99
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	355	358
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.148
Magnesium (total)	mg/L	1060	1020

MBE-2 SURFACE		Sample date	8/18/2021	9/18/2021
Parameter	Units			
Manganese	mg/L	< 0.050	< 0.0010	
Mercury	mg/L	< 0.00001	< 0.00001	
Molybdenum	mg/L	< 0.050	0.0100	
Nickel	mg/L	< 0.050	0.00049	
Potassium (total)	mg/L	322	322	
Selenium	mg/L	< 0.0050	< 0.00080	
Silicon	mg/L	< 5.0	< 1	
Silver	mg/L	< 0.0010	< 0.00010	
Sodium (total)	mg/L	8530	8500	
Strontium	mg/L	7.38	7.38	
Sulphur	mg/L	833	808	
Thallium	mg/L	< 0.00050	< 0.000040	
Tin	mg/L	< 0.25	< 0.0040	
Titanium	mg/L	< 0.25	< 0.01	
Uranium	mg/L	< 0.0050	0.00266	
Vanadium	mg/L	< 0.25	< 0.0040	
Zinc	mg/L	< 0.25	0.0043	
Zirconium	mg/L	< 0.0050	< 0.0020	
Dissolved Metals				
Aluminum	mg/L	< 0.15	0.013	
Antimony	mg/L	< 0.025	< 0.00040	
Arsenic	mg/L	< 0.0050	0.00169	
Barium	mg/L	< 0.050	0.00921	
Beryllium	mg/L	< 0.0050	< 0.00020	
Bismuth	mg/L	< 0.050	< 0.00010	
Boron	mg/L	3.6	3.97	
Cadmium	mg/L	< 0.00050	< 0.00010	
Calcium (Dissolved)	mg/L	341	343	
Chromium	mg/L	< 0.050	< 0.0020	
Cobalt	mg/L	< 0.010	< 0.00010	
Copper	mg/L	< 0.010	< 0.0010	
Iron	mg/L	< 0.25	< 0.02	
Lead	mg/L	< 0.010	< 0.00010	
Lithium	mg/L	0.15	0.146	
Magnesium (Dissolved)	mg/L	1030	985	
Manganese	mg/L	< 0.050	0.0010	
Mercury	mg/L	< 0.00001	< 0.00001	
Molybdenum	mg/L	< 0.050	0.0095	
Nickel	mg/L	< 0.050	0.00052	
Potassium (Dissolved)	mg/L	322	318	
Selenium	mg/L	< 0.0050	< 0.00080	
Silicon	mg/L	< 5.0	< 1	
Silver	mg/L	< 0.0010	< 0.00010	
Sodium (Dissolved)	mg/L	8730	8320	
Strontium	mg/L	7.02	7.21	
Sulphur	mg/L	818	807	
Thallium	mg/L	< 0.00050	< 0.000040	
Tin	mg/L	< 0.25	< 0.0040	
Titanium	mg/L	< 0.25	< 0.01	
Uranium	mg/L	< 0.0050	0.00274	
Vanadium	mg/L	< 0.25	< 0.0040	
Zinc	mg/L	< 0.25	0.0047	
Zirconium	mg/L	< 0.0050	< 0.0020	
Radionuclides				
Radium-226	Bq/l	< 0.0050	< 0.0050	

MBE-2 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.89	7.85
pH (for salinity in water)	pH units	7.89	7.87
Dissolved Oxygen	mg/L	10.8	10.5
Turbidity	NTU	0.2	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	46000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5350	5100
Hardness, as CaCO3 (D)	mg/L	5030	5180
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	110	100
TDS	mg/L	30900	30700
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	4	< 2.0
Total organic carbon	mg/L	1.3	1.1
Dissolved organic carbon	mg/L	1.3	1.1
Sodium Adsorption Ratio (salinity in water)	-	51	50
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	290
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	15000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0020	-
Cyanide (WAD)	mg/L	0.0011	-
Fluoride	mg/L	0.65	0.63
Magnesium (element - for salinity in water)	mg/L	1100	900
Potassium (element - for salinity in water)	mg/L	340	280
Silica	mg/L	0.19	0.23
Sodium (element - for salinity in water)	mg/L	8900	7700
Sulfate	mg/L	1900	2300
Sulphate (for salinity in water)	mg/L	2300	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.072	0.13
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.15	0.66
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.043
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	0.047
Orthophosphate (P)	mg/L	0.015	0.016
Total Metals			
Aluminum	mg/L	< 0.15	0.016
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00222
Barium	mg/L	< 0.050	0.00896
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.2	3.99
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	361	366
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.154
Magnesium (total)	mg/L	1080	1020

MBE-2 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0096
Nickel	mg/L	< 0.050	< 0.00040
Potassium (total)	mg/L	332	328
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8740	8500
Strontium	mg/L	7.54	7.45
Sulphur	mg/L	871	826
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00277
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0039
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.016
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00199
Barium	mg/L	< 0.050	0.00984
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.96
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	338	358
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.149
Magnesium (Dissolved)	mg/L	1020	1040
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0095
Nickel	mg/L	< 0.050	0.00058
Potassium (Dissolved)	mg/L	317	330
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8530	8660
Strontium	mg/L	6.98	7.19
Sulphur	mg/L	780	831
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00274
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0038
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	0.011

MBE-4 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.91	7.88
pH (for salinity in water)	pH units	7.89	7.90
Dissolved Oxygen	mg/L	10.7	10.8
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	45000	45000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5550	5010
Hardness, as CaCO3 (D)	mg/L	5070	5040
Total alkalinity, as CaCO3	mg/L	100	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	27100	30100
TDS, calculated (for salinity in water)	mg/L	45000	44000
TSS	mg/L	1	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.3	1.1
Sodium Adsorption Ratio (salinity in water)	-	53	49
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	270
Chloride (for salinity in water)	mg/L	15000	15000
Chloride	mg/L	15000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0027	-
Cyanide (WAD)	mg/L	0.0017	-
Fluoride	mg/L	0.65	0.62
Magnesium (element - for salinity in water)	mg/L	1200	840
Potassium (element - for salinity in water)	mg/L	340	260
Silica	mg/L	0.30	0.20
Sodium (element - for salinity in water)	mg/L	9200	7300
Sulfate	mg/L	2000	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.11	0.13
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.050
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.13	0.23
Total phosphorus (SM4500-PBF)	mg/L	0.048	0.058
Total phosphorus (SW6020)	mg/L	-	0.044
Dissolved phosphorus (SW6020)	mg/L	-	0.04
Orthophosphate (P)	mg/L	0.013	0.013
Total Metals			
Aluminum	mg/L	< 0.15	0.018
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00222
Barium	mg/L	< 0.050	0.00932
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.3	3.93
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	367	344
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.147
Magnesium (total)	mg/L	1120	1010

MBE-4 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	0.0011
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0100
Nickel	mg/L	< 0.050	0.00057
Potassium (total)	mg/L	337	321
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8900	8390
Strontium	mg/L	7.80	7.33
Sulphur	mg/L	902	815
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00272
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0037
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.014
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00210
Barium	mg/L	< 0.050	0.00962
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	4.04
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	336	359
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.16	0.148
Magnesium (Dissolved)	mg/L	1030	1010
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0098
Nickel	mg/L	< 0.050	0.00067
Potassium (Dissolved)	mg/L	319	325
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8640	8430
Strontium	mg/L	6.98	7.38
Sulphur	mg/L	801	810
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00270
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0037
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MBE-4 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.90	7.82
pH (for salinity in water)	pH units	7.89	7.88
Dissolved Oxygen	mg/L	11.0	10.7
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	44000	42000
Hardness, as CaCO3 (T)	mg/L	5500	5110
Hardness, as CaCO3 (D)	mg/L	5160	5210
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	28000	30500
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	8	< 2.0
Total organic carbon	mg/L	1.3	1.1
Dissolved organic carbon	mg/L	1.3	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	56
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	380
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	15000	16000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0020	-
Cyanide (WAD)	mg/L	0.0015	-
Fluoride	mg/L	0.65	0.61
Magnesium (element - for salinity in water)	mg/L	1200	1200
Potassium (element - for salinity in water)	mg/L	350	360
Silica	mg/L	0.21	0.22
Sodium (element - for salinity in water)	mg/L	9000	10000
Sulfate	mg/L	2100	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.080	0.12
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.010
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	< 0.10	0.47
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.046
Total phosphorus (SW6020)	mg/L	-	0.046
Dissolved phosphorus (SW6020)	mg/L	-	0.046
Orthophosphate (P)	mg/L	0.013	0.016
Total Metals			
Aluminum	mg/L	< 0.15	0.02
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00196
Barium	mg/L	< 0.050	0.00992
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.3	3.96
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	363	359
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.19	0.15
Magnesium (total)	mg/L	1110	1020

MBE-4 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0097
Nickel	mg/L	< 0.050	0.00056
Potassium (total)	mg/L	337	328
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8980	8370
Strontium	mg/L	7.63	7.41
Sulphur	mg/L	883	821
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00278
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0039
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.02
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00207
Barium	mg/L	< 0.050	0.00967
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	4.04
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	345	365
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.151
Magnesium (Dissolved)	mg/L	1040	1040
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0101
Nickel	mg/L	< 0.050	0.00044
Potassium (Dissolved)	mg/L	323	336
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8740	8790
Strontium	mg/L	6.93	7.31
Sulphur	mg/L	806	837
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00280
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0054
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MBE-5 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.90	7.87
pH (for salinity in water)	pH units	7.84	7.92
Dissolved Oxygen	mg/L	10.8	10.6
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	45000	45000
Specific conductivity	umhos/cm	42000	42000
Hardness, as CaCO3 (T)	mg/L	5380	5020
Hardness, as CaCO3 (D)	mg/L	5010	5110
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	30500	30100
TDS, calculated (for salinity in water)	mg/L	45000	44000
TSS	mg/L	5	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.3	1.2
Sodium Adsorption Ratio (salinity in water)	-	52	54
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	380
Chloride (for salinity in water)	mg/L	15000	15000
Chloride	mg/L	15000	16000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0020	-
Cyanide (WAD)	mg/L	0.0015	-
Fluoride	mg/L	0.65	0.62
Magnesium (element - for salinity in water)	mg/L	1200	1300
Potassium (element - for salinity in water)	mg/L	340	360
Silica	mg/L	0.20	0.20
Sodium (element - for salinity in water)	mg/L	8900	9600
Sulfate	mg/L	2100	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.095	0.11
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.20	0.50
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.046
Total phosphorus (SW6020)	mg/L	-	0.046
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.012	0.015
Total Metals			
Aluminum	mg/L	< 0.15	0.124
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00207
Barium	mg/L	< 0.050	0.0100
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.4	4.03
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	354	361
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.15
Magnesium (total)	mg/L	1090	1000

MBE-5 SURFACE	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0100
Nickel	mg/L	< 0.050	0.00045
Potassium (total)	mg/L	331	326
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8720	8400
Strontium	mg/L	7.38	7.39
Sulphur	mg/L	865	816
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00279
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0067
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.015
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00187
Barium	mg/L	< 0.050	0.00940
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	4.12
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	330	353
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.147
Magnesium (Dissolved)	mg/L	1020	1030
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0098
Nickel	mg/L	< 0.050	0.00055
Potassium (Dissolved)	mg/L	318	325
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8690	8610
Strontium	mg/L	6.88	7.16
Sulphur	mg/L	778	818
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00281
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0034
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MBE-5 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.89	7.87
pH (for salinity in water)	pH units	7.87	7.91
Dissolved Oxygen	mg/L	10.7	10.5
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	46000
Specific conductivity	umhos/cm	43000	42000
Hardness, as CaCO3 (T)	mg/L	5110	5160
Hardness, as CaCO3 (D)	mg/L	5100	5020
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	110	100
TDS	mg/L	27800	30400
TDS, calculated (for salinity in water)	mg/L	46000	46000
TSS	mg/L	-	< 2.0
Total organic carbon	mg/L	1.3	1.1
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	51	56
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	370
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	15000	13000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0031	-
Cyanide (WAD)	mg/L	0.0019	-
Fluoride	mg/L	0.66	0.63
Magnesium (element - for salinity in water)	mg/L	1200	1200
Potassium (element - for salinity in water)	mg/L	350	350
Silica	mg/L	0.20	0.23
Sodium (element - for salinity in water)	mg/L	9000	9700
Sulfate	mg/L	2200	2300
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.10	0.11
Nitrate	mg/L	< 0.20	< 0.10
Nitrite	mg/L	< 0.020	< 0.050
Nitrate + nitrite	mg/L	< 0.20	< 0.10
Total Kjeldahl nitrogen	mg/L	0.15	0.42
Total phosphorus (SM4500-PBF)	mg/L	< 0.040	0.047
Total phosphorus (SW6020)	mg/L	-	0.04
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.011	0.016
Total Metals			
Aluminum	mg/L	< 0.15	0.02
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00202
Barium	mg/L	< 0.050	0.00965
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.9	4.08
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	342	361
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.17	0.154
Magnesium (total)	mg/L	1030	1030

MBE-5 DEEP	Sample date	8/18/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0099
Nickel	mg/L	< 0.050	< 0.00040
Potassium (total)	mg/L	312	334
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8180	8630
Strontium	mg/L	6.99	7.59
Sulphur	mg/L	817	839
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00291
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0046
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.013
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00214
Barium	mg/L	< 0.050	0.00884
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.8	3.92
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	342	352
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.16	0.148
Magnesium (Dissolved)	mg/L	1030	1010
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0101
Nickel	mg/L	< 0.050	0.00046
Potassium (Dissolved)	mg/L	319	323
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8660	8340
Strontium	mg/L	7.01	7.32
Sulphur	mg/L	792	808
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00275
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0038
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWREFA-1 SURFACE	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.88	7.87
pH (for salinity in water)	pH units	7.89	7.84
Dissolved Oxygen	mg/L	11.4	10.6
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	44000
Specific conductivity	umhos/cm	42000	42000
Hardness, as CaCO3 (T)	mg/L	5420	5020
Hardness, as CaCO3 (D)	mg/L	5010	5120
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	30700	28600
TDS, calculated (for salinity in water)	mg/L	46000	44000
TSS	mg/L	16	< 2.0
Total organic carbon	mg/L	1.3	1.3
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	51	54
Major Ions			
Calcium (element - for salinity in water)	mg/L	340	390
Chloride (for salinity in water)	mg/L	16000	15000
Chloride	mg/L	16000	15000
Cyanide	mg/L	0.0072	< 0.0050
Cyanide (free)	mg/L	0.0016	-
Fluoride	mg/L	0.67	0.62
Magnesium (element - for salinity in water)	mg/L	1100	1300
Potassium (element - for salinity in water)	mg/L	330	370
Silica	mg/L	0.18	0.19
Sodium (element - for salinity in water)	mg/L	8500	9700
Sulfate	mg/L	2000	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.099	0.12
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	0.010	< 0.010
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.13	0.67
Total phosphorus (SM4500-PBF)	mg/L	0.050	0.057
Total phosphorus (SW6020)	mg/L	-	0.043
Dissolved phosphorus (SW6020)	mg/L	-	0.043
Orthophosphate (P)	mg/L	0.016	0.014
Total Metals			
Aluminum	mg/L	< 0.15	0.015
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00202
Barium	mg/L	< 0.050	0.00930
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.9	3.98
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	357	351
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.147
Magnesium (total)	mg/L	1100	1010

MWREFA-1 SURFACE			
Parameter	Sample date	8/19/2021	9/18/2021
	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0094
Nickel	mg/L	< 0.050	0.00042
Potassium (total)	mg/L	338	324
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8980	8490
Strontium	mg/L	7.25	7.29
Sulphur	mg/L	847	809
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00272
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0027
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.014
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00186
Barium	mg/L	< 0.050	0.00917
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.98
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	342	356
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.147
Magnesium (Dissolved)	mg/L	1010	1030
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0094
Nickel	mg/L	< 0.050	0.00056
Potassium (Dissolved)	mg/L	315	321
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8510	8520
Strontium	mg/L	7.01	7.01
Sulphur	mg/L	805	799
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00280
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0044
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWREFA-1 DEEP	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.85	7.79
pH (for salinity in water)	pH units	7.92	7.89
Dissolved Oxygen	mg/L	11.8	10.3
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	42000	43000
Hardness, as CaCO3 (T)	mg/L	5280	5000
Hardness, as CaCO3 (D)	mg/L	5000	5130
Total alkalinity, as CaCO3	mg/L	100	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	30900	30400
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	24	2.8
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.3	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	53
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	340
Chloride (for salinity in water)	mg/L	15000	15000
Chloride	mg/L	15000	14000
Cyanide	mg/L	0.0076	< 0.0050
Cyanide (free)	mg/L	0.0018	-
Fluoride	mg/L	0.66	0.60
Magnesium (element - for salinity in water)	mg/L	1100	1200
Potassium (element - for salinity in water)	mg/L	340	340
Silica	mg/L	0.24	0.21
Sodium (element - for salinity in water)	mg/L	8900	9300
Sulfate	mg/L	2300	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.090	0.11
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.050
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.14	0.87
Total phosphorus (SM4500-PBF)	mg/L	< 0.04	< 0.040
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	0.041
Orthophosphate (P)	mg/L	0.015	0.017
Total Metals			
Aluminum	mg/L	< 0.15	0.017
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00205
Barium	mg/L	< 0.050	0.00905
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.0	3.97
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	354	352
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00011
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.16	0.15
Magnesium (total)	mg/L	1070	1000

MWREFA-1 DEEP	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0102
Nickel	mg/L	< 0.050	0.00042
Potassium (total)	mg/L	335	324
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8740	8390
Strontium	mg/L	7.14	7.23
Sulphur	mg/L	800	821
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00285
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0035
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.014
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00196
Barium	mg/L	< 0.050	0.00915
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.92
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	336	356
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00012
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.148
Magnesium (Dissolved)	mg/L	1010	1030
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0094
Nickel	mg/L	< 0.050	< 0.00040
Potassium (Dissolved)	mg/L	314	319
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8540	8470
Strontium	mg/L	6.99	7.1
Sulphur	mg/L	773	802
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00278
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0031
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

QAQC MWREFA-1 SURFACE Parameter	Sample date		8/19/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.60	-	7.89	7.88	0.13	-
pH (for salinity in water)	pH units		6.19	-	7.93	7.89	0.51	-
Dissolved Oxygen	mg/L		11.0	-	11.2	11.4	1.77	-
Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.00	0.00
Specific conductivity (for salinity in water)	uS/cm	2.0	2.7	2.0	46000	46000	0.00	29.79
Specific conductivity	umhos/cm	1.0	150	1.0	42000	42000	0.00	197.35
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	5290	5420	2.43	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	5110	5010	1.98	-
Total alkalinity, as CaCO3	mg/L	1.0	1.0	1.0	110	110	0.00	0.00
Bicarbonate, as CaCO3	mg/L	1.0	1.0	-	100	100	0.00	-
TDS	mg/L	10	65	10	30900	30700	0.65	146.67
TDS, calculated (for salinity in water)	mg/L	10	10	-	46000	46000	0.00	-
TSS	mg/L	1	1	1.0	9	16	56.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	1.3	1.3	0.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	1.2	1.2	0.00	0.00
Sodium Adsorption Ratio (salinity in water)	-	0.10	NC	-	52	51	1.94	-
Major Ions								
Calcium (element - for salinity in water)	mg/L	0.30	0.3	0.3	350	340	2.90	0.00
Chloride (for salinity in water)	mg/L	1.0	1	1	15000	16000	6.45	0.00
Chloride	mg/L	1.0	36	1	15000	16000	6.45	189.19
Cyanide	mg/L	0.0050	0.005	0.005	0.0062	0.0072	14.93	0.00
Cyanide (free)	mg/L	0.001	0.0036	0.001	0.0025	0.0016	43.90	113.04
Fluoride	mg/L	0.10	0.1	0.1	0.66	0.67	1.50	0.00
Magnesium (element - for salinity in water)	mg/L	0.20	0.2	0.20	1100	1100	0.00	0.00
Potassium (element - for salinity in water)	mg/L	0.30	0.3	0.30	340	330	2.99	0.00
Silica	mg/L	0.050	0.05	0.050	0.17	0.18	5.71	0.00
Sodium (element - for salinity in water)	mg/L	0.50	0.79	0.50	8800	8500	3.47	44.96
Sulfate	mg/L	1.0	4.8	1.0	2200	2000	9.52	131.03
Sulphate (for salinity in water)	mg/L	1.0	1	1.0	2200	2200	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.050	0.094	0.099	5.18	0.00
Nitrate	mg/L	0.10	0.1	0.10	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.010	0.01	0.010	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.10	0.14	0.13	7.41	0.00
Total phosphorus	mg/L	0.020	0.02	0.020	0.043	0.050	15.05	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.010	0.011	0.016	37.04	0.00
Total Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.15	0.15	0.00	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.025	0.025	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	4.0	3.9	2.53	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Calcium (total)	mg/L	0.050	0.05	-	346	357	3.13	-
Chromium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Copper	mg/L	0.00050	0.0005	0.00050	0.025	0.025	0.00	0.00
Iron	mg/L	0.010	0.01	0.010	0.5	0.5	0.00	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.16	0.15	6.45	0.00
Magnesium (total)	mg/L	0.050	0.05	-	1080	1100	1.83	-
Manganese	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Potassium (total)	mg/L	0.050	0.05	-	329	338	2.70	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	5	5	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.001	0.001	0.00	0.00
Sodium (total)	mg/L	0.050	0.05	-	8590	8980	4.44	-
Strontium	mg/L	0.0010	0.001	0.0010	7.15	7.25	1.39	0.00
Sulphur	mg/L	3.0	3	-	828	847	2.27	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00

QAQC MWREFA-1 SURFACE Parameter	Sample date		8/19/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Zirconium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.0030	0.003	0.0030	0.15	0.15	0.00	0.00
Antimony	mg/L	0.00050	0.0005	0.00050	0.025	0.025	0.00	0.00
Arsenic	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Barium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Beryllium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Boron	mg/L	0.050	0.05	0.050	3.6	3.7	2.74	0.00
Cadmium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Calcium (Dissolved)	mg/L	0.050	0.05	-	342	342	0.00	-
Chromium	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Copper	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Iron	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Lead	mg/L	0.00020	0.0002	0.00020	0.01	0.01	0.00	0.00
Lithium	mg/L	0.0020	0.002	0.0020	0.15	0.15	0.00	0.00
Magnesium (Dissolved)	mg/L	0.050	0.05	-	1030	1010	1.96	-
Manganese	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.0010	0.05	0.05	0.00	0.00
Potassium (Dissolved)	mg/L	0.050	0.05	-	323	315	2.51	-
Selenium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Silicon	mg/L	0.10	0.1	0.10	5	5	0.00	0.00
Silver	mg/L	0.000020	0.00002	0.000020	0.001	0.001	0.00	0.00
Sodium (Dissolved)	mg/L	0.050	0.05	-	8650	8510	1.63	-
Strontium	mg/L	0.0010	0.001	0.0010	7.12	7.01	1.56	0.00
Sulphur	mg/L	3.0	3	-	810	805	0.62	-
Thallium	mg/L	0.000010	0.00001	0.000010	0.0005	0.0005	0.00	0.00
Tin	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Uranium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.0050	0.25	0.25	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.00010	0.005	0.005	0.00	0.00
Radionuclides								
Radium-226	Bq/l	0.0050	0.005	0.0050	0.005	0.005	0.00	0.00
% Exceedance*							0%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MWREFA-2 SURFACE	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.89	7.87
pH (for salinity in water)	pH units	7.91	7.91
Dissolved Oxygen	mg/L	11.0	10.7
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	42000	42000
Hardness, as CaCO3 (T)	mg/L	5160	5020
Hardness, as CaCO3 (D)	mg/L	5010	5070
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	32000	28500
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	18	< 2.0
Total organic carbon	mg/L	1.2	1.3
Dissolved organic carbon	mg/L	1.1	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	50
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	290
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	16000	14000
Cyanide	mg/L	0.0069	< 0.0050
Cyanide (free)	mg/L	0.0031	-
Fluoride	mg/L	0.67	0.62
Magnesium (element - for salinity in water)	mg/L	1100	890
Potassium (element - for salinity in water)	mg/L	340	280
Silica	mg/L	0.17	0.19
Sodium (element - for salinity in water)	mg/L	8800	7600
Sulfate	mg/L	2300	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.10	0.10
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.050
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.16	0.81
Total phosphorus (SM4500-PBF)	mg/L	< 0.04	< 0.04
Total phosphorus (SW6020)	mg/L	-	0.042
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.016	0.014
Total Metals			
Aluminum	mg/L	< 0.15	0.028
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00177
Barium	mg/L	< 0.050	0.00927
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.9	4
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	342	350
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.149
Magnesium (total)	mg/L	1050	1010

MWREFA-2 SURFACE			
Parameter	Sample date	8/19/2021	9/18/2021
	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0098
Nickel	mg/L	< 0.050	0.00054
Potassium (total)	mg/L	322	325
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8390	8370
Strontium	mg/L	6.88	7.34
Sulphur	mg/L	797	810
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00268
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0039
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.014
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00183
Barium	mg/L	< 0.050	0.00922
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	3.97
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	349	345
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00011
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.147
Magnesium (Dissolved)	mg/L	1010	1020
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0100
Nickel	mg/L	< 0.050	0.00073
Potassium (Dissolved)	mg/L	317	319
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8490	8450
Strontium	mg/L	6.86	6.94
Sulphur	mg/L	807	812
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00266
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0042
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWREFA-2 DEEP	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.88	7.84
pH (for salinity in water)	pH units	7.91	7.90
Dissolved Oxygen	mg/L	10.8	10.8
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	46000
Specific conductivity	umhos/cm	42000	43000
Hardness, as CaCO3 (T)	mg/L	5290	5070
Hardness, as CaCO3 (D)	mg/L	5100	5090
Total alkalinity, as CaCO3	mg/L	100	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	31000	30600
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	16	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.2	1.2
Sodium Adsorption Ratio (salinity in water)	-	52	50
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	280
Chloride (for salinity in water)	mg/L	15000	16000
Chloride	mg/L	15000	13000
Cyanide	mg/L	0.0065	< 0.0050
Cyanide (free)	mg/L	0.0016	-
Fluoride	mg/L	0.66	0.61
Magnesium (element - for salinity in water)	mg/L	1100	860
Potassium (element - for salinity in water)	mg/L	340	270
Silica	mg/L	0.29	0.22
Sodium (element - for salinity in water)	mg/L	8800	7500
Sulfate	mg/L	2200	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.11	0.11
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.050
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.14	0.67
Total phosphorus (SM4500-PBF)	mg/L	0.044	< 0.04
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	0.044
Orthophosphate (P)	mg/L	0.021	0.015
Total Metals			
Aluminum	mg/L	< 0.15	0.022
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00212
Barium	mg/L	< 0.050	0.00925
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.1	3.9
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	351	351
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00011
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.16	0.151
Magnesium (total)	mg/L	1070	1020

MWREFA-2 DEEP	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0100
Nickel	mg/L	< 0.050	0.00055
Potassium (total)	mg/L	336	325
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8650	8460
Strontium	mg/L	7.25	7.36
Sulphur	mg/L	858	818
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00272
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0039
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.015
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00191
Barium	mg/L	< 0.050	0.00949
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.7	4.08
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	350	356
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.148
Magnesium (Dissolved)	mg/L	1030	1020
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0096
Nickel	mg/L	< 0.050	0.00069
Potassium (Dissolved)	mg/L	325	321
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8510	8490
Strontium	mg/L	7.05	7.11
Sulphur	mg/L	811	811
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00267
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0034
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWREFA-3 SURFACE	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.86	7.86
pH (for salinity in water)	pH units	7.91	7.90
Dissolved Oxygen	mg/L	11.6	10.8
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	42000	42000
Hardness, as CaCO3 (T)	mg/L	4960	5110
Hardness, as CaCO3 (D)	mg/L	5090	5170
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	31000	29100
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	17	< 2.0
Total organic carbon	mg/L	1.3	1.2
Dissolved organic carbon	mg/L	1.2	1.1
Sodium Adsorption Ratio (salinity in water)	-	52	53
Major Ions			
Calcium (element - for salinity in water)	mg/L	350	330
Chloride (for salinity in water)	mg/L	16000	15000
Chloride	mg/L	16000	14000
Cyanide	mg/L	0.0057	< 0.0050
Cyanide (free)	mg/L	0.0029	-
Fluoride	mg/L	0.65	0.62
Magnesium (element - for salinity in water)	mg/L	1100	1200
Potassium (element - for salinity in water)	mg/L	340	330
Silica	mg/L	0.19	0.18
Sodium (element - for salinity in water)	mg/L	8800	9400
Sulfate	mg/L	2200	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.17	0.11
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.050
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.22	< 0.50
Total phosphorus (SM4500-PBF)	mg/L	< 0.04	0.051
Total phosphorus (SW6020)	mg/L	-	< 0.04
Dissolved phosphorus (SW6020)	mg/L	-	0.041
Orthophosphate (P)	mg/L	0.016	0.015
Total Metals			
Aluminum	mg/L	< 0.15	0.02
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00183
Barium	mg/L	< 0.050	0.00971
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.9	3.78
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	325	357
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.16	0.149
Magnesium (total)	mg/L	1010	1020

MWREFA-3 SURFACE			
Parameter	Sample date	8/19/2021	9/18/2021
	Units		
Manganese	mg/L	< 0.050	0.0025
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0100
Nickel	mg/L	< 0.050	0.00067
Potassium (total)	mg/L	314	326
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8110	8560
Strontium	mg/L	7.03	7.01
Sulphur	mg/L	793	828
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00272
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0034
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	0.013
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00207
Barium	mg/L	< 0.050	0.00946
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.6	4.03
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	347	365
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00012
Copper	mg/L	< 0.010	< 0.0010
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.15
Magnesium (Dissolved)	mg/L	1030	1030
Manganese	mg/L	< 0.050	0.0011
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0099
Nickel	mg/L	< 0.050	0.00067
Potassium (Dissolved)	mg/L	322	330
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8680	8540
Strontium	mg/L	7.12	7.27
Sulphur	mg/L	795	835
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00279
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0033
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

MWREFA-3 DEEP	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Conventional Parameters			
pH	pH units	7.91	7.86
pH (for salinity in water)	pH units	7.92	7.90
Dissolved Oxygen	mg/L	11.3	11.0
Turbidity	NTU	< 0.1	< 0.1
Specific conductivity (for salinity in water)	uS/cm	46000	45000
Specific conductivity	umhos/cm	42000	43000
Hardness, as CaCO3 (T)	mg/L	5310	4840
Hardness, as CaCO3 (D)	mg/L	5040	4760
Total alkalinity, as CaCO3	mg/L	110	100
Bicarbonate, as CaCO3	mg/L	100	100
TDS	mg/L	31100	30600
TDS, calculated (for salinity in water)	mg/L	46000	45000
TSS	mg/L	16	< 2.0
Total organic carbon	mg/L	1.3	1.3
Dissolved organic carbon	mg/L	1.2	1.3
Sodium Adsorption Ratio (salinity in water)	-	52	53
Major Ions			
Calcium (element - for salinity in water)	mg/L	360	380
Chloride (for salinity in water)	mg/L	16000	16000
Chloride	mg/L	16000	14000
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0020	-
Fluoride	mg/L	0.66	0.62
Magnesium (element - for salinity in water)	mg/L	1100	1300
Potassium (element - for salinity in water)	mg/L	340	370
Silica	mg/L	0.26	0.19
Sodium (element - for salinity in water)	mg/L	8900	9500
Sulfate	mg/L	2200	2200
Sulphate (for salinity in water)	mg/L	2200	2200
Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	0.091	0.14
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010
Nitrate + nitrite	mg/L	< 0.10	< 0.10
Total Kjeldahl nitrogen	mg/L	0.11	0.61
Total phosphorus (SM4500-PBF)	mg/L	0.041	0.048
Total phosphorus (SW6020)	mg/L	-	0.044
Dissolved phosphorus (SW6020)	mg/L	-	< 0.04
Orthophosphate (P)	mg/L	0.016	0.017
Total Metals			
Aluminum	mg/L	< 0.15	0.029
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00197
Barium	mg/L	< 0.050	0.00887
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	4.2	3.6
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (total)	mg/L	351	341
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	< 0.00010
Copper	mg/L	< 0.025	< 0.0010
Iron	mg/L	< 0.50	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.18	0.14
Magnesium (total)	mg/L	1080	970

MWREFA-3 DEEP	Sample date	8/19/2021	9/18/2021
Parameter	Units		
Manganese	mg/L	< 0.050	0.0017
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0103
Nickel	mg/L	< 0.050	0.00067
Potassium (total)	mg/L	335	311
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (total)	mg/L	8580	8140
Strontium	mg/L	7.35	6.66
Sulphur	mg/L	830	781
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00260
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0053
Zirconium	mg/L	< 0.0050	< 0.0020
Dissolved Metals			
Aluminum	mg/L	< 0.15	< 0.01
Antimony	mg/L	< 0.025	< 0.00040
Arsenic	mg/L	< 0.0050	0.00199
Barium	mg/L	< 0.050	0.00944
Beryllium	mg/L	< 0.0050	< 0.00020
Bismuth	mg/L	< 0.050	< 0.00010
Boron	mg/L	3.6	3.54
Cadmium	mg/L	< 0.00050	< 0.00010
Calcium (Dissolved)	mg/L	340	327
Chromium	mg/L	< 0.050	< 0.0020
Cobalt	mg/L	< 0.010	0.00013
Copper	mg/L	< 0.010	0.0011
Iron	mg/L	< 0.25	< 0.02
Lead	mg/L	< 0.010	< 0.00010
Lithium	mg/L	0.15	0.14
Magnesium (Dissolved)	mg/L	1020	957
Manganese	mg/L	< 0.050	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	0.0090
Nickel	mg/L	< 0.050	0.00101
Potassium (Dissolved)	mg/L	324	303
Selenium	mg/L	< 0.0050	< 0.00080
Silicon	mg/L	< 5.0	< 1
Silver	mg/L	< 0.0010	< 0.00010
Sodium (Dissolved)	mg/L	8580	7990
Strontium	mg/L	7.12	6.75
Sulphur	mg/L	818	778
Thallium	mg/L	< 0.00050	< 0.000040
Tin	mg/L	< 0.25	< 0.0040
Titanium	mg/L	< 0.25	< 0.01
Uranium	mg/L	< 0.0050	0.00264
Vanadium	mg/L	< 0.25	< 0.0040
Zinc	mg/L	< 0.25	0.0066
Zirconium	mg/L	< 0.0050	< 0.0020
Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050

QAQC MWRefA-3 SURFACE Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Conventional Parameters								
pH	pH units		6.24	-	7.87	7.86	0.13	-
pH (for salinity in water)	pH units		5.59	-	7.89	7.90	0.13	-
Dissolved Oxygen	mg/L		10.9	-	10.7	10.8	0.93	-
Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.00	0.00
Specific conductivity (for salinity in water)	uS/cm	2.0	2	2.0	45000	45000	0.00	0.00
Specific conductivity	umhos/cm	1.0	1.3	1.0	42000	42000	0.00	26.09
Hardness, as CaCO3 (T)	mg/L	0.50	0.5	-	5020	5110	1.78	-
Hardness, as CaCO3 (D)	mg/L	0.50	0.5	-	5040	5170	2.55	-
Total alkalinity, as CaCO3	mg/L	1.0	1	1.0	100	100	0.00	0.00
Bicarbonate, as CaCO3	mg/L	1.0	1	-	100	100	0.00	-
TDS	mg/L	10	10	10	30400	29100	4.37	0.00
TDS, calculated (for salinity in water)	mg/L	10	10	-	45000	45000	0.00	-
TSS	mg/L	2.0	2	2.0	2	2	0.00	0.00
Total organic carbon	mg/L	0.40	0.4	0.40	1.3	1.2	8.00	0.00
Dissolved organic carbon	mg/L	0.40	0.4	0.40	1.1	1.1	0.00	0.00
Sodium Adsorption Ratio (salinity in water)	-	0.10	NC	-	50	53	5.83	-
Major Ions								
Calcium (element - for salinity in water)	mg/L	0.30	0.3	0.3	290	330	12.90	0.00
Chloride (for salinity in water)	mg/L	1.0	1	1	16000	15000	6.45	0.00
Chloride	mg/L	1.0	1	1	14000	14000	0.00	0.00
Cyanide	mg/L	0.0050	0.005	0.005	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.1	0.62	0.62	0.00	0.00
Magnesium (element - for salinity in water)	mg/L	0.20	0.2	0.2	930	1200	25.35	0.00
Potassium (element - for salinity in water)	mg/L	0.30	0.3	0.3	280	330	16.39	0.00
Silica	mg/L	0.050	0.05	0.05	0.18	0.18	0.00	0.00
Sodium (element - for salinity in water)	mg/L	0.50	0.5	0.5	7800	9400	18.60	0.00
Sulfate	mg/L	1.0	1	1	2200	2200	0.00	0.00
Sulphate (for salinity in water)	mg/L	1.0	1	1	2200	2200	0.00	0.00
Nutrients and Chlorophyll a								
Ammonia Nitrogen	mg/L	0.050	0.05	0.05	0.12	0.11	8.70	0.00
Nitrate	mg/L	0.10	0.1	0.1	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.05	0.05	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.1	-	0.1	0.1	0.00	-
Total Kjeldahl nitrogen	mg/L	0.10	0.1	0.1	0.70	0.5	33.33	0.00
Total phosphorus	mg/L	0.020	0.04	0.04	0.043	0.051	17.02	0.00
Total phosphorus	mg/L	0.002	0.002	0.002	0.043	0.04	7.23	0.00
Dissolved phosphorus	mg/L	0.002	0.002	0.002	0.04	0.041	2.47	0.00
Orthophosphate (P)	mg/L	0.010	0.01	0.01	0.016	0.015	6.45	0.00
Total Metals								
Aluminum	mg/L	0.0005	0.00141	0.0005	0.014	0.02	35.29	95.29
Antimony	mg/L	0.00002	0.00002	0.00002	0.0004	0.0004	0.00	0.00
Arsenic	mg/L	0.00002	0.00002	0.00002	0.00181	0.00183	1.10	0.00
Barium	mg/L	0.00002	0.00002	0.00002	0.00853	0.00971	12.94	0.00
Beryllium	mg/L	0.00001	0.00001	0.00001	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.000005	0.000005	0.000005	0.0001	0.0001	0.00	0.00
Boron	mg/L	0.01	0.01	0.01	3.8	3.78	0.53	0.00
Cadmium	mg/L	0.000005	0.000005	0.000005	0.0001	0.0001	0.00	0.00
Calcium (total)	mg/L	0.010	0.05	-	355	357	0.56	-
Chromium	mg/L	0.0001	0.0001	0.0001	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.000005	0.000005	0.000005	0.0001	0.0001	0.00	0.00
Copper	mg/L	0.00005	0.000223	0.00005	0.001	0.001	0.00	126.74
Iron	mg/L	0.001	0.001	0.001	0.02	0.02	0.00	0.00
Lead	mg/L	0.000005	0.0000164	0.000005	0.0001	0.0001	0.00	106.54
Lithium	mg/L	0.0005	0.0005	0.0005	0.147	0.149	1.35	0.00
Magnesium (total)	mg/L	0.01	0.05	-	1000	1020	1.98	-
Manganese	mg/L	0.00005	0.00005	0.00005	0.0014	0.0025	56.41	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.00005	0.00005	0.00005	0.0095	0.0100	5.13	0.00
Nickel	mg/L	0.00002	0.000199	0.00002	0.00051	0.00067	27.12	163.47
Potassium (total)	mg/L	0.01	0.05	-	328	326	0.61	-
Selenium	mg/L	0.00004	0.00004	0.00004	0.0008	0.0008	0.00	0.00
Silicon	mg/L	0.05	0.05	0.05	1	1	0.00	0.00
Silver	mg/L	0.000005	0.000005	0.000005	0.0001	0.0001	0.00	0.00
Sodium (total)	mg/L	0.010	0.05	-	8460	8560	1.18	-
Strontium	mg/L	0.00005	0.00005	0.00005	6.98	7.01	0.43	0.00
Sulphur	mg/L	0.6	3	-	803	828	3.07	-
Thallium	mg/L	0.000002	0.000002	0.000002	0.00004	0.00004	0.00	0.00
Tin	mg/L	0.0002	0.0002	0.0002	0.004	0.004	0.00	0.00
Titanium	mg/L	0.0005	0.0005	0.0005	0.01	0.01	0.00	0.00
Uranium	mg/L	0.000002	0.000002	0.000002	0.00272	0.00272	0.00	0.00
Vanadium	mg/L	0.0002	0.0002	0.0002	0.004	0.004	0.00	0.00

QAQC MWRefA-3 SURFACE Parameter	Sample date		9/18/2021					
	Unit	MDL	Field Blank	Lab Blank	Duplicate	Original	RPD (FD/N)	RPD (FB/LB)
Zinc	mg/L	0.0001	0.00115	0.0001	0.0035	0.0034	2.90	<i>168.00</i>
Zirconium	mg/L	0.0001	0.0001	0.0001	0.002	0.002	0.00	0.00
Dissolved Metals								
Aluminum	mg/L	0.00050	0.00136	0.00050	0.013	0.013	0.00	92.47
Antimony	mg/L	0.000020	0.00002	0.000020	0.0004	0.0004	0.00	0.00
Arsenic	mg/L	0.000020	0.00002	0.000020	0.00173	0.00207	17.89	0.00
Barium	mg/L	0.000020	0.00002	0.000020	0.00884	0.00946	6.78	0.00
Beryllium	mg/L	0.000010	0.00001	0.000010	0.0002	0.0002	0.00	0.00
Bismuth	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Boron	mg/L	0.01	0.01	0.01	3.99	4.03	1.00	0.00
Cadmium	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Calcium (Dissolved)	mg/L	0.0010	0.05	-	352	365	3.63	-
Chromium	mg/L	0.00010	0.0001	0.00010	0.002	0.002	0.00	0.00
Cobalt	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.00012	18.18	0.00
Copper	mg/L	0.000050	0.000181	0.000050	0.001	0.001	0.00	113.42
Iron	mg/L	0.0010	0.0011	0.0010	0.026	0.02	26.09	9.52
Lead	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Lithium	mg/L	0.00050	0.0005	0.00050	0.147	0.15	2.02	0.00
Magnesium (Dissolved)	mg/L	0.010	0.05	-	1010	1030	1.96	-
Manganese	mg/L	0.000050	0.00005	0.000050	0.001	0.0011	9.52	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.000050	0.00005	0.000050	0.0097	0.0099	2.04	0.00
Nickel	mg/L	0.000020	0.000040	0.000020	0.00059	0.00067	12.70	66.67
Potassium (Dissolved)	mg/L	0.010	0.05	-	319	330	3.39	-
Selenium	mg/L	0.000040	0.00004	0.000040	0.0008	0.0008	0.00	0.00
Silicon	mg/L	0.05	0.05	0.05	1	1	0.00	0.00
Silver	mg/L	0.0000050	0.000005	0.0000050	0.0001	0.0001	0.00	0.00
Sodium (Dissolved)	mg/L	0.010	0.05	-	8310	8540	2.73	-
Strontium	mg/L	0.000050	0.00005	0.000050	7.06	7.27	2.93	0.00
Sulphur	mg/L	0.60	3	-	811	835	2.92	-
Thallium	mg/L	0.0000020	0.000002	0.0000020	0.00004	0.00004	0.00	0.00
Tin	mg/L	0.00020	0.0002	0.00020	0.004	0.004	0.00	0.00
Titanium	mg/L	0.00050	0.0005	0.00050	0.01	0.01	0.00	0.00
Uranium	mg/L	0.0000020	0.000002	0.0000020	0.00278	0.00279	0.36	0.00
Vanadium	mg/L	0.00020	0.0002	0.00020	0.004	0.004	0.00	0.00
Zinc	mg/L	0.00010	0.00019	0.00010	0.0053	0.0033	46.51	62.07
Zirconium	mg/L	0.00010	0.0001	0.00010	0.002	0.002	0.00	0.00
Radionuclides								
Radium-226	Bq/l	0.0050	0.005	0.005	0.005	0.005	0.00	0.00
% Exceedance*							6%	0%

Footnotes:

RPD = Relative Percent Difference; MDL: Method Detection Limit

All value "<DL" have been replaced by "DL".

* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.