



Meliadine Gold Project
NWB 2AM-MEL1631
August 2020 Monthly Report

Prepared for:

Nunavut Water Board

Prepared by:

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Table of Contents

SECTION 1 • BACKGROUND	3
SECTION 2 • WATER MANAGEMENT	3
2.1 WATER USAGE	3
2.2 DEWATERING ACTIVITIES	3
2.3 MELIADINE DISCHARGE	3
2.4 MELVIN BAY DISCHARGE	3
2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM	3
2.6 SEWAGE TREATMENT PLANT	3
2.7 CONTAINMENTS.....	4
2.8 MONITORING ANALYTICAL DATA	4
SECTION 3 • MATERIAL MANAGEMENT.....	57
3.1 LANDFILL / LANDFARM.....	57
3.2 ORE	57
3.3 WASTE ROCK STORAGE FACILITY.....	57
3.4 TAILINGS	57
SECTION 4 SPILL MANAGEMENT	57
4.1 INTERNAL AND REPORTABLE SPILLS	57

SECTION 1 • BACKGROUND

As required under Part I, Item 10 of Type A Water License 2AM-MEL1631, this report documents the water management and monitoring activities at the mine site and provides a summary of spills/ actions for the month of August 2020.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Table 2.1 details monthly water usage approved under Water License 2AM-MEL1631:

Table 2.1: Summary of Agnico's monthly water usage in August 2020

	Monthly Usage (m ³)
Camp and Mill (MEL-11)	13,538.15
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total July	13,538.15
Year to date 2020	225,896.37

2.2 DEWATERING ACTIVITIES

Dewatering of the Lake H-19 and H-20 started August 17th 2019 and stopped October 5th 2019.

2.3 MELIADINE DISCHARGE

Discharge from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) started June 5th 2020, a total of 83,455 m³ was discharged throughout the month.

2.4 MELVIN BAY DISCHARGE

Discharge to sea via the Final Discharge Point (MEL-26) started August 10th 2020, a total of approximately 16,431 m³ was discharged throughout the month.

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM

The 2AM-MEL1631 landfill and landfarm were commissioned in November 2017. No seepage or runoff was observed in August 2020.

2.6 SEWAGE TREATMENT PLANT

In August 2020, 4,112 m³ of treated wastewater was discharged into CP1. The majority of the sludge is disposed of in the WRSF.

2.7 CONTAINMENTS

Discharged from the Itivia fuel containment facility (Station Mel-25) started June 27th and ended in July. Approximately 3,780 m³ was discharged through the discharge period.

2.8 MONITORING ANALYTICAL DATA

In August 2020, samples related to the water Licence were taken. See below the analytical results from these monitoring stations. One TSS exceedances occurred in August 2020 at MEL-26.

MEL-11	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	80.3
Dissolved oxygen	%	86.5
Dissolved oxygen	mg/L	8.33
pH	pH units	7.95
Temperature	°C	17.2
Conventional Parameters		
Dissolved organic carbon	mg/L	2.6
Hardness, as CaCO3 (D)	mg/L	24.4
Hardness, as CaCO3 (T)	mg/L	23.8
pH	pH units	7.26
Specific conductivity	umhos/cm	92
Total alkalinity, as CaCO3	mg/L	17
Total dissolved solids	mg/L	25
Total organic carbon	mg/L	3.2
Total suspended solids	mg/L	1
Turbidity	NTU	0.3
Major Ions		
Bicarbonate, as CaCO3	mg/L	17
Calcium	mg/L	7.68
Carbonate, as CaCO3	mg/L	< 1.0
Chloride	mg/L	13
Cyanide	mg/L	< 0.0050
Cyanide (free)	ug/L	1.5
Cyanide (WAD)	mg/L	< 0.0010

Magnesium	mg/L	1.28
Potassium	mg/L	0.953
Silica	mg/L	0.28
Sodium	mg/L	5.2
Sulphate	mg/L	4.3
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrate + nitrite	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Orthophosphate	mg/L	< 0.010
Total ammonia	mg/L	< 0.050
Total Kjeldahl nitrogen	mg/L	0.19
Total phosphorus	mg/L	< 0.020
Total Metals		
Aluminum	mg/L	0.0048
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00045
Barium	mg/L	0.0081
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	7.36
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00083
Iron	mg/L	0.028
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.31
Manganese	mg/L	0.0065

Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	0.97
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.157
Silver	mg/L	< 0.000020
Sodium	mg/L	5.24
Strontium	mg/L	0.0442
Sulphur	mg/L	< 3
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	0.00051
Barium	mg/L	0.0086
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00079
Iron	mg/L	0.0113
Lead	mg/L	< 0.00020

Lithium	mg/L	< 0.0020
Manganese	mg/L	< 0.0010
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.15
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0469
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
Volatile Organics		
Benzene	ug/L	< 0.20
Ethylbenzene	ug/L	< 0.20
F1 (C6-C10)	ug/L	< 25
F1 (C6-C10)-BTEX	ug/L	< 25
F2 (C10-C16)	ug/L	< 100
F3 (C16-C34)	ug/L	< 200
F4 (C34-C50)	ug/L	< 200
m,p-Xylenes	ug/L	< 0.40
o-Xylene	ug/L	< 0.20
Reached baseline at C50	ug/L	YES
Toluene	ug/L	< 0.20
Xylenes	ug/L	< 0.40

MEL-12	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	2371
Dissolved oxygen	%	92.1
Dissolved oxygen	mg/L	10.36
pH	pH units	7.4
Temperature	°C	18.2
Conventional Parameters		
Dissolved organic carbon	mg/L	8.8
Hardness, as CaCO ₃ (D)	mg/L	547
Hardness, as CaCO ₃ (T)	mg/L	548
pH	pH units	7.71
Specific conductivity	umhos/cm	2600
Total alkalinity, as CaCO ₃	mg/L	56
Total dissolved solids	mg/L	1650
Total organic carbon	mg/L	9.9
Total suspended solids	mg/L	3
Turbidity	NTU	0.4
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	56
Calcium	mg/L	158
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	650
Cyanide	mg/L	< 0.0050
Cyanide (free)	ug/L	1.2
Cyanide (WAD)	mg/L	0.0016
Magnesium	mg/L	37.1
Potassium	mg/L	18.2

Sodium	mg/L	244
Sulphate	mg/L	130
Nutrients and Chlorophyll a		
Nitrate	mg/L	10.8
Nitrate + nitrite	mg/L	11.2
Nitrite	mg/L	0.344
Orthophosphate	mg/L	< 0.010
Total ammonia	mg/L	0.31
Total Kjeldahl nitrogen	mg/L	< 0.50
Total phosphorus	mg/L	0.021
Total Metals		
Aluminum	mg/L	0.281
Antimony	mg/L	0.00066
Arsenic	mg/L	0.00786
Barium	mg/L	0.0843
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.278
Cadmium	mg/L	0.000022
Calcium	mg/L	157
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00094
Copper	mg/L	0.00199
Iron	mg/L	0.07
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0733
Magnesium	mg/L	38.1
Manganese	mg/L	0.126
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0034
Nickel	mg/L	0.004

Potassium	mg/L	17.5
Selenium	mg/L	0.00025
Silicon	mg/L	0.349
Silver	mg/L	< 0.000020
Sodium	mg/L	241
Strontium	mg/L	2.99
Sulphur	mg/L	44.6
Thallium	mg/L	0.000034
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.00111
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	< 0.00010
Dissolved Metals		
Aluminum	mg/L	0.242
Antimony	mg/L	0.00068
Arsenic	mg/L	0.00857
Barium	mg/L	0.0911
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.266
Cadmium	mg/L	0.000015
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00097
Copper	mg/L	0.00183
Iron	mg/L	0.0624
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0694
Manganese	mg/L	0.116
Mercury	mg/L	< 0.00001

Molybdenum	mg/L	0.0037
Nickel	mg/L	0.0041
Selenium	mg/L	0.0003
Silicon	mg/L	0.346
Silver	mg/L	< 0.000020
Strontium	mg/L	3.25
Sulphur	mg/L	46.2
Thallium	mg/L	0.000036
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.00121
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.00011

MEL-13	Sample date	8/2/2020	8/9/2020	8/15/2020	8/23/2020	8/29/2020
Parameter	Unit					
Conventional Parameters						
Dissolved organic carbon	mg/L	3.2	3.4	3.4	3.5	3.7
Dissolved Oxygen	mg/L	10.3	10.2	10.7	10	10.2
Hardness, as CaCO ₃ (D)	mg/L	30.9	29	28.5	29.3	29.5
Hardness, as CaCO ₃ (T)	mg/L	29.3	28.2	28	29.1	29.4
pH	pH units	7.36	7.45	7.21	7.36	7.17
Specific conductivity	umhos/cm	110	110	110	110	110
Total alkalinity, as CaCO ₃	mg/L	16	17	17	17	17
Total dissolved solids	mg/L	65	75	70	100	70
Total organic carbon	mg/L	3.3	3.7	3.3	3.4	3.3

Total suspended solids	mg/L	2	2	1	2	2
Turbidity	NTU	0.3	0.3	0.4	0.3	0.3
Major Ions						
Bicarbonate, as CaCO ₃	mg/L	16	17	17	17	17
Calcium	mg/L	9.56	8.75	8.66	8.86	8.92
Carbonate, as CaCO ₃	mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	17	17	16	17	18
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	ug/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cyanide (WAD)	mg/L	0.0011	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	1.71	1.73	1.66	1.74	1.76
Potassium	mg/L	1.12	1.15	1.1	1.08	1.11
Silica	mg/L	0.25	0.28	0.34	0.28	0.37
Sodium	mg/L	7.43	7.61	7.01	7.45	7.66
Sulphate	mg/L	5.7	5.8	6	5.8	5.6
Nutrients and Chlorophyll a						
Dissolved phosphorus	ug/L	0.006	0.0088	0.0094	0.0052	0.0075
Nitrate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrate + nitrite	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total ammonia	mg/L	< 0.050	0.078	0.098	0.16	0.18
Total Kjeldahl nitrogen	mg/L	0.15	0.2	0.19	0.17	0.15
Total phosphorus	mg/L	< 0.020	< 0.020	< 0.020	< 0.020	0.021
Total phosphorus	ug/L	0.0068	0.0107	0.0062	0.0151	0.0114
Total Metals						
Aluminum	mg/L	0.0041	0.00381	0.00491	0.00492	0.00395
Antimony	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Arsenic	mg/L	0.000457	0.000487	0.000532	0.000551	0.000518
Barium	mg/L	0.00897	0.00839	0.00857	0.00836	0.00818

Beryllium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Bismuth	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Boron	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Calcium	mg/L	8.9	8.55	8.51	8.76	8.94
Chromium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Cobalt	mg/L	0.0000263	0.0000291	0.000027	0.0000294	0.0000231
Copper	mg/L	0.000806	0.000883	0.000815	0.000864	0.000869
Iron	mg/L	0.0286	0.0216	0.0284	0.0432	0.0241
Lead	mg/L	0.000007	0.0000063	0.000009	0.0000085	0.0000077
Lithium	mg/L	0.00128	0.00142	0.00139	0.00152	0.00146
Magnesium	mg/L	1.71	1.66	1.64	1.75	1.73
Manganese	mg/L	0.00686	0.0075	0.00894	0.00936	0.00727
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.000104	0.000097	0.000129	0.000106	0.000114
Nickel	mg/L	0.000726	0.000745	0.000724	0.00076	0.000758
Potassium	mg/L	1.11	1.02	1.1	1.1	1.08
Selenium	mg/L	< 0.000040	< 0.000040	< 0.000040	< 0.000040	< 0.000040
Silicon	mg/L	0.13	0.138	0.197	0.152	0.145
Silver	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	0.000007	< 0.0000050
Sodium	mg/L	7.19	7.15	6.96	7.52	7.52
Strontium	mg/L	0.0599	0.0603	0.0599	0.0598	0.0596
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.0000020	< 0.0000020	< 0.0000020	< 0.0000020	< 0.0000020
Tin	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050

Uranium	mg/L	0.0000257	0.000022	0.0000198	0.0000228	0.000024
Vanadium	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	< 0.00010	< 0.00010	0.00083	< 0.00010	0.00037
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals						
Aluminum	mg/L	0.00188	0.00215	0.00204	0.00184	0.00233
Antimony	mg/L	< 0.000020	< 0.000020	< 0.000020	0.000028	< 0.000020
Arsenic	mg/L	0.000446	0.000476	0.000505	0.000485	0.0005
Barium	mg/L	0.00868	0.00853	0.00852	0.00837	0.00854
Beryllium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Bismuth	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Boron	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Chromium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Cobalt	mg/L	0.0000131	0.0000126	0.0000133	0.0000157	0.0000138
Copper	mg/L	0.000756	0.000818	0.000817	0.000828	0.000801
Iron	mg/L	0.0095	0.0079	0.0088	0.0074	0.0077
Lead	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	0.0000151	< 0.0000050
Lithium	mg/L	0.00128	0.00136	0.00136	0.00142	0.00145
Manganese	mg/L	0.000582	0.00104	0.00116	0.000547	0.000563
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.000127	0.000106	0.000135	0.00012	0.000117
Nickel	mg/L	0.000709	0.000729	0.000707	0.000637	0.000663
Selenium	mg/L	< 0.000040	< 0.000040	< 0.000040	< 0.000040	< 0.000040
Silicon	mg/L	0.136	0.13	0.165	0.144	0.144

Silver	mg/L	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050	< 0.0000050
Strontium	mg/L	0.0623	0.0608	0.0618	0.0615	0.0621
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.0000020	< 0.0000020	0.0000034	0.0000024	0.0000021
Tin	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	< 0.00050	0.00086	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	0.0000221	0.0000213	0.0000231	0.0000209	0.0000233
Vanadium	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	0.00022	< 0.00010	0.0003	0.0003	0.00052
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Radionuclides						
Radium-226	Bq/l	< 0.0050	< 0.0050	< 0.0050	0.01	0.012
Volatile Organics						
Benzene	ug/L	< 0.20		< 0.20	< 0.20	< 0.20
Ethylbenzene	ug/L	< 0.20		< 0.20	< 0.20	< 0.20
F1 (C6-C10)	ug/L	< 25	< 25	< 25	< 25	< 25
F1 (C6-C10)-BTEX	ug/L	< 25	< 25	< 25	< 25	< 25
F2 (C10-C16)	ug/L	< 100	< 100	< 100	< 100	< 100
F3 (C16-C34)	ug/L	< 200	< 200	< 200	< 200	< 200
F4 (C34-C50)	ug/L	< 200	< 200	< 200	< 200	< 200
m,p-Xylenes	ug/L	< 0.40		< 0.40	< 0.40	< 0.40
o-Xylene	ug/L	< 0.20		< 0.20	< 0.20	< 0.20
Reached baseline at C50	-	Yes	Yes	Yes	Yes	Yes
Toluene	ug/L	< 0.20		0.24	< 0.20	< 0.20
Xylenes	ug/L	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40

MEL-14	Sample date	8/2/2020	8/9/2020	8/13/2020	8/16/2020	8/23/2020	8/29/2020	8/30/2020
Parameter	Unit							
Conductivity	uS/cm	2679	2724			2930		3012
Dissolved oxygen	%	66	98.2			84.8		98.2
Dissolved oxygen	mg/L	6.3				8.48		10.75
pH	pH units	7.37	7.15			7.3		6.92
Temperature	°C	16.2	17.2			14.6		10.9
Dissolved organic carbon	mg/L	7.6	8.5		8.2	8.7	8.9	7.9
Dissolved Oxygen	mg/L	10.3	9.66		9.76	10.6	10.2	10.1
Hardness, as CaCO ₃ (D)	mg/L	561	583	605	600	599	659	670
Hardness, as CaCO ₃ (T)	mg/L	562	614		612	632	616	633
pH	pH units	7.51	7.52	7.72	7.44	7.63	7.35	7.39
Specific conductivity	umhos/cm	2500	2700	2800	2800	2900	3000	3000
Total alkalinity, as CaCO ₃	mg/L	46	53	61	61	63	67	60
Total dissolved solids	mg/L	1300	1660	1400	1400	1400	1770	1620
Total dissolved solids	mg/L	1550	1400	1670	1400	1850	1600	1600
Total organic carbon	mg/L	8	8.3		9	9	9.6	8.5
Total suspended solids	mg/L	4	3	3	5	5	4	3
Turbidity	NTU	0.7	0.6	0.5	0.7	0.5	0.6	0.6
Bicarbonate, as CaCO ₃	mg/L	46	53	60	61	62	67	60
Calcium	mg/L	157	165	172	173	173	187	191
Carbonate, as CaCO ₃	mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	630	680	700	710	700	790	780
Cyanide	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)	ug/L	1.7	1.7		1.7	1.2	1.6	1.6
Cyanide (WAD)	mg/L	0.0019	0.001		0.0011	< 0.0010	0.0011	< 0.0010
Fluoride	mg/L	< 0.10	0.11	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	41.2	41.7	42.4	40.8	40.4	46.5	46.5
Potassium	mg/L	18	19.1	19.1	19.2	19.4	21.1	21.3
Silica	mg/L	0.8	0.78		1.2	1.2	1.1	1.2

Sodium	mg/L	255	273	270	278	268	299	300
Sulphate	mg/L	140	150	140	140	150	170	160
Biochemical Oxygen Demand, 5 Day	mg/L	2	< 2		3	2	< 2	< 2
Nitrate	mg/L	11.7	11.6	11	10.6	10.9	10.8	10.7
Nitrate + nitrite	mg/L	12	11.9	11.3	10.9	11.1	11.1	11
Nitrite	mg/L	0.357	0.34	0.29	0.293	0.24	0.277	0.282
Orthophosphate	mg/L	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010	< 0.010
Total ammonia	mg/L	0.6	0.45		0.24	0.16	0.39	0.47
Total Kjeldahl nitrogen	mg/L	1.3	< 0.50		0.84	1.1	1.3	0.68
Total phosphorus	mg/L	0.022	< 0.020		< 0.020	0.023	0.026	< 0.020
Aluminum	mg/L	0.413	0.455		0.469	0.526	0.492	0.501
Antimony	mg/L	0.00067	0.0007		0.00063	0.00065	< 0.0010	< 0.0010
Arsenic	mg/L	0.0033	0.00525		0.00302	0.00359	0.00587	0.00551
Barium	mg/L	0.0819	0.0999		0.102	0.103	0.107	0.109
Beryllium	mg/L	< 0.00010	< 0.00010		< 0.00010	< 0.00010	< 0.00020	< 0.00020
Bismuth	mg/L	< 0.0010	< 0.0010		< 0.0010	< 0.0010	< 0.0020	< 0.0020
Boron	mg/L	0.265	0.317		0.312	0.347	0.367	0.374
Cadmium	mg/L	0.000019	< 0.000010		0.000011	< 0.000010	< 0.000020	< 0.000020
Calcium	mg/L	161	174		174	181	172	178
Chromium	mg/L	< 0.0010	< 0.0010		< 0.0010	< 0.0010	< 0.0020	< 0.0020
Cobalt	mg/L	0.00092	0.00106		0.00098	0.00097	0.00111	0.00113
Copper	mg/L	0.00148	0.00121		0.00152	0.00171	0.0018	0.0017
Iron	mg/L	0.045	0.062		0.037	0.033	0.031	0.031
Lead	mg/L	< 0.00020	< 0.00020		< 0.00020	< 0.00020	< 0.00040	< 0.00040
Lithium	mg/L	0.0631	0.0702		0.0769	0.0769	0.0818	0.0827
Magnesium	mg/L	38.8	43.7		42.8	43.8	45	45.7
Manganese	mg/L	0.103	0.271		0.221	0.177	0.151	0.156
Mercury	mg/L	< 0.00001	< 0.00001		< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0031	0.0039		0.0036	0.0036	0.0038	0.0038

Nickel	mg/L	0.0039	0.0044		0.0043	0.0044	0.0049	0.0049
Potassium	mg/L	17.7	20		20	20.5	20.4	20.6
Selenium	mg/L	0.00024	0.00027		0.00024	0.00023	0.00029	0.00031
Silicon	mg/L	0.345	0.377		0.52	0.551	0.654	0.674
Silver	mg/L	< 0.000020	< 0.000020		< 0.000020	< 0.000020	< 0.000040	< 0.000040
Sodium	mg/L	246	289		272	284	290	295
Strontium	mg/L	2.91	3.07		3.2	3.33	3.25	3.26
Sulphur	mg/L	44	49.9		49.1	50.8	56.6	57.9
Thallium	mg/L	0.000032	< 0.000010		0.00003	0.000031	0.000031	0.000033
Tin	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.01	< 0.01
Titanium	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.01	< 0.01
Uranium	mg/L	0.00042	0.00032		0.00037	0.00054	0.00072	0.00031
Vanadium	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.01	< 0.01
Zinc	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.01	< 0.01
Zirconium	mg/L	< 0.00010	< 0.00010		< 0.00010	< 0.00010	< 0.00020	< 0.00020
Aluminum	mg/L	0.144	0.127		0.113	0.122	0.151	0.0991
Antimony	mg/L	0.00069	0.00067		0.00066	0.00063	0.00068	0.00063
Arsenic	mg/L	0.00272	0.00427		0.003	0.00321	0.00591	0.00538
Barium	mg/L	0.0835	0.0973		0.103	0.102	0.101	0.104
Beryllium	mg/L	< 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
Boron	mg/L	0.32	0.293		0.321	0.32	0.364	0.353
Cadmium	mg/L	0.000019	0.000013		< 0.000010	< 0.000010	0.00001	0.000012
Chromium	mg/L	< 0.0010	< 0.0010		< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	0.00089	0.001		0.00096	0.001	0.00105	0.00105
Copper	mg/L	0.00147	0.00111		0.00132	0.0015	0.00154	0.00139
Iron	mg/L	0.026	0.0296		0.0216	0.0165	0.0197	0.0212
Lead	mg/L	< 0.00020	< 0.00020		< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	0.0754	0.0693		0.0681	0.0696	0.0798	0.0761

Manganese	mg/L	0.111	0.27		0.208	0.191	0.147	0.153
Mercury	mg/L	< 0.00001	< 0.00001		< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0033	0.0037		0.0039	0.0036	0.0039	0.0038
Nickel	mg/L	0.0039	0.0042		0.004	0.0044	0.0045	0.0046
Selenium	mg/L	0.00024	0.00027		0.00026	0.00023	0.00031	0.00032
Silicon	mg/L	0.331	0.327		0.422	0.469	0.67	0.66
Silver	mg/L	< 0.000020	< 0.000020		< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	2.87	3.02		3.45	3.26	3.48	3.45
Sulphur	mg/L	46.2	46.5		48.1	46.9	58.5	59.1
Thallium	mg/L	0.000034	< 0.000010		0.000021	0.000029	0.00003	0.000034
Tin	mg/L	< 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
Uranium	mg/L	0.00034	0.00026		0.00029	0.00046	0.00064	0.00023
Vanadium	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050		< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010		< 0.00010	< 0.00010	< 0.00010	< 0.00010
Radium-226	Bq/l	0.014	0.023		< 0.0050	0.019	0.016	0.014
Daphnia 48 h Static Acute Test - EC50	%	> 100	> 100		> 100	> 100 > 100		
Daphnia 48 h static acute test - LC50	%	> 100	> 100		> 100	> 100 > 100		
LC50 (96h) - Rainbow Trout	%	> 100	> 100		> 100	> 100 > 100		
Benzene	ug/L	< 0.20	< 0.20		< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	ug/L	< 0.20	< 0.20		< 0.20	< 0.20	< 0.20	< 0.20
F1 (C6-C10)	ug/L	< 25	< 25		< 25	< 25	< 25	< 25
F1 (C6-C10)-BTEX	ug/L	< 25	< 25		< 25	< 25	< 25	< 25
F2 (C10-C16)	ug/L	< 100	< 100		< 100	< 100	< 100	< 100
F3 (C16-C34)	ug/L	< 200	< 200		< 200	< 200	< 200	< 200
F4 (C34-C50)	ug/L	< 200	< 200		< 200	< 200	< 200	< 200
m,p-Xylenes	ug/L	< 0.40	< 0.40		< 0.40	< 0.40	< 0.40	< 0.40

o-Xylene	ug/L	< 0.20	< 0.20		< 0.20	< 0.20	< 0.20	< 0.20
Reached baseline at C50	-	YES	YES		YES	YES	YES	YES
Toluene	ug/L	< 0.20	0.26		< 0.20	< 0.20	< 0.20	< 0.20
Xylenes	ug/L	< 0.40	< 0.40		< 0.40	< 0.40	< 0.40	< 0.40

MEL-15	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	80.8
Dissolved oxygen	%	92.4
Dissolved oxygen	mg/L	8.28
pH	pH units	8.64
Temperature	°C	20.7
Conventional Parameters		
Dissolved organic carbon	mg/L	4.3
Hardness, as CaCO ₃ (D)	mg/L	37.1
Hardness, as CaCO ₃ (T)	mg/L	35.8
pH	pH units	7.55
Specific conductivity	umhos/cm	98
Total alkalinity, as CaCO ₃	mg/L	34
Total dissolved solids	mg/L	65
Total organic carbon	mg/L	4.2
Total suspended solids	mg/L	< 1
Turbidity	NTU	0.5
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	34
Calcium	mg/L	12.6
Carbonate, as CaCO ₃	mg/L	< 1.0

Chloride	mg/L	7.2
Cyanide	mg/L	< 0.0050
Cyanide (free)	ug/L	1.5
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	1.38
Potassium	mg/L	0.906
Silica	mg/L	0.76
Sodium	mg/L	3.27
Sulphate	mg/L	2.7
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrate + nitrite	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Orthophosphate	mg/L	< 0.010
Total ammonia	mg/L	0.36
Total Kjeldahl nitrogen	mg/L	0.32
Total phosphorus	mg/L	< 0.020
Total Metals		
Aluminum	mg/L	0.0036
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00105
Barium	mg/L	0.0104
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	11.9
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.0007
Iron	mg/L	0.071

Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.44
Manganese	mg/L	0.0087
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	0.95
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.359
Silver	mg/L	< 0.000020
Sodium	mg/L	3.34
Strontium	mg/L	0.0647
Sulphur	mg/L	< 3
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	0.00112
Barium	mg/L	0.0107
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010

Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00067
Iron	mg/L	0.042
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0036
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.374
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0678
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

MEL-16	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	55.2
Dissolved oxygen	%	87.8
Dissolved oxygen	mg/L	7.82
pH	pH units	8.59

Temperature	°C	20
Conventional Parameters		
Dissolved organic carbon	mg/L	4.3
Hardness, as CaCO ₃ (D)	mg/L	37.4
Hardness, as CaCO ₃ (T)	mg/L	36.5
pH	pH units	7.55
Specific conductivity	umhos/cm	100
Total alkalinity, as CaCO ₃	mg/L	25
Total dissolved solids	mg/L	70
Total organic carbon	mg/L	4.2
Total suspended solids	mg/L	2
Turbidity	NTU	0.5
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	25
Calcium	mg/L	12.3
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	14
Cyanide	mg/L	< 0.0050
Cyanide (free)	ug/L	1.2
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	1.59
Potassium	mg/L	0.973
Silica	mg/L	0.3
Sodium	mg/L	2.72
Sulphate	mg/L	2.6
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrate + nitrite	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Orthophosphate	mg/L	< 0.010
Total ammonia	mg/L	0.077

Total Kjeldahl nitrogen	mg/L	0.27
Total phosphorus	mg/L	< 0.020
Total Metals		
Aluminum	mg/L	0.0107
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00283
Barium	mg/L	0.0195
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	11.9
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00106
Iron	mg/L	0.111
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.62
Manganese	mg/L	0.0097
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	1.02
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.165
Silver	mg/L	< 0.000020
Sodium	mg/L	2.84
Strontium	mg/L	0.0671
Sulphur	mg/L	< 3
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	0.0054
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00258
Barium	mg/L	0.0193
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00094
Iron	mg/L	0.0472
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0012
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.16
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0701
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

MEL-17	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	291.3
Dissolved oxygen	%	84.4
Dissolved oxygen	mg/L	7.48
pH	pH units	8.55
Temperature	°C	21.2
Conventional Parameters		
Dissolved organic carbon	mg/L	11
Hardness, as CaCO ₃ (D)	mg/L	117
Hardness, as CaCO ₃ (T)	mg/L	109
pH	pH units	8
Specific conductivity	umhos/cm	320
Total alkalinity, as CaCO ₃	mg/L	71
Total dissolved solids	mg/L	245
Total organic carbon	mg/L	11
Total suspended solids	mg/L	6
Turbidity	NTU	1.3
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	70
Calcium	mg/L	39.4
Carbonate, as CaCO ₃	mg/L	< 1.0

Chloride	mg/L	46
Cyanide	mg/L	< 0.0050
Cyanide (free)	ug/L	1.7
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	4.43
Potassium	mg/L	3.07
Silica	mg/L	1
Sodium	mg/L	12
Sulphate	mg/L	4.4
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrate + nitrite	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Orthophosphate	mg/L	< 0.010
Total ammonia	mg/L	0.7
Total Kjeldahl nitrogen	mg/L	0.64
Total phosphorus	mg/L	< 0.020
General Organics		
Total oil and grease	mg/L	< 0.50
Total Metals		
Aluminum	mg/L	0.0112
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00125
Barium	mg/L	0.0338
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	36.5
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020

Copper	mg/L	0.00097
Iron	mg/L	0.379
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0083
Magnesium	mg/L	4.39
Manganese	mg/L	0.0625
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0017
Potassium	mg/L	2.88
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.482
Silver	mg/L	< 0.000020
Sodium	mg/L	11.8
Strontium	mg/L	0.327
Sulphur	mg/L	< 3
Thallium	mg/L	< 0.000010
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.0001
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	0.00116
Barium	mg/L	0.0347
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05

Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00086
Iron	mg/L	0.165
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0081
Manganese	mg/L	0.0347
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0017
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.512
Silver	mg/L	< 0.000020
Strontium	mg/L	0.354
Sulphur	mg/L	< 3.0
Thallium	mg/L	< 0.000010
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.0001
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	< 0.00010
Volatile Organics		
Benzene	ug/L	< 0.20
Ethylbenzene	ug/L	< 0.20
F1 (C6-C10)	ug/L	< 25
F1 (C6-C10)-BTX	ug/L	< 25
m,p-Xylenes	ug/L	< 0.40
o-Xylene	ug/L	< 0.20
Toluene	ug/L	< 0.20

Xylenes	ug/L	< 0.40
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MEL-18	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	125.2
Dissolved oxygen	%	99.2
Dissolved oxygen	mg/L	8.97
pH	pH units	8.43
Temperature	°C	20.2
Conventional Parameters		
Dissolved organic carbon	mg/L	3.9
Hardness, as CaCO ₃ (D)	mg/L	51.6
Hardness, as CaCO ₃ (T)	mg/L	47
pH	pH units	7.55
Specific conductivity	umhos/cm	140
Total alkalinity, as CaCO ₃	mg/L	33
Total dissolved solids	mg/L	105
Total organic carbon	mg/L	4.2
Total suspended solids	mg/L	7
Turbidity	NTU	0.7
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	33
Calcium	mg/L	17.1
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	19
Cyanide	mg/L	< 0.0050
Cyanide (free)	ug/L	1.2
Cyanide (WAD)	mg/L	< 0.0010

Magnesium	mg/L	2.14
Potassium	mg/L	1.1
Silica	mg/L	0.55
Sodium	mg/L	4.29
Sulphate	mg/L	5.5
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrate + nitrite	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Orthophosphate	mg/L	< 0.010
Total ammonia	mg/L	0.066
Total Kjeldahl nitrogen	mg/L	0.31
Total phosphorus	mg/L	< 0.020
Total Metals		
Aluminum	mg/L	0.0205
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00384
Barium	mg/L	0.0155
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	15.5
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00104
Iron	mg/L	0.239
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0068
Magnesium	mg/L	2.03
Manganese	mg/L	0.0213

Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	1.07
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.275
Silver	mg/L	< 0.000020
Sodium	mg/L	4.19
Strontium	mg/L	0.119
Sulphur	mg/L	< 3
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	0.0119
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00249
Barium	mg/L	0.0163
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00069
Iron	mg/L	0.0485
Lead	mg/L	< 0.00020

Lithium	mg/L	0.0068
Manganese	mg/L	0.0058
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.283
Silver	mg/L	< 0.000020
Strontium	mg/L	0.133
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

MEL-20	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	2035
Dissolved oxygen	%	91
Dissolved oxygen	mg/L	8.8
pH	pH units	8.95
Temperature	°C	16.7
Conventional Parameters		
Hardness, as CaCO ₃ (D)	mg/L	446
Hardness, as CaCO ₃ (T)	mg/L	450
pH	pH units	8.58
Total alkalinity, as CaCO ₃	mg/L	89

Total dissolved solids	mg/L	1330
Total suspended solids	mg/L	17
Turbidity	NTU	3.7
Major Ions		
Calcium	mg/L	122
Chloride	mg/L	420
Cyanide	mg/L	< 0.0050
Fluoride	mg/L	0.2
Magnesium	mg/L	34.5
Potassium	mg/L	18.5
Sodium	mg/L	242
Sulphate	mg/L	300
Nutrients and Chlorophyll a		
Nitrate	mg/L	11.5
Nitrate + nitrite	mg/L	12.2
Nitrite	mg/L	0.727
Orthophosphate	mg/L	0.046
Total ammonia	mg/L	5.8
Total phosphorus	mg/L	0.074
Total Metals		
Aluminum	mg/L	0.0372
Antimony	mg/L	0.00111
Arsenic	mg/L	0.138
Barium	mg/L	0.0577
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.279
Cadmium	mg/L	0.000033
Calcium	mg/L	121
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00526

Copper	mg/L	0.00804
Iron	mg/L	0.068
Lead	mg/L	0.00073
Lithium	mg/L	0.0089
Magnesium	mg/L	36
Manganese	mg/L	0.269
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0071
Nickel	mg/L	0.0251
Potassium	mg/L	17.8
Selenium	mg/L	0.00152
Silicon	mg/L	2.21
Silver	mg/L	< 0.000020
Sodium	mg/L	240
Strontium	mg/L	0.895
Sulphur	mg/L	103
Thallium	mg/L	0.000018
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.00716
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.00035
Dissolved Metals		
Aluminum	mg/L	0.0121
Antimony	mg/L	0.00114
Arsenic	mg/L	0.152
Barium	mg/L	0.0577
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.254

Cadmium	mg/L	0.00001
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00433
Copper	mg/L	0.00627
Iron	mg/L	0.0151
Lead	mg/L	0.00022
Lithium	mg/L	0.0082
Manganese	mg/L	0.135
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0076
Nickel	mg/L	0.0159
Selenium	mg/L	0.00171
Silicon	mg/L	2.16
Silver	mg/L	< 0.000020
Strontium	mg/L	0.979
Sulphur	mg/L	105
Thallium	mg/L	0.00002
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.00747
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.00027

MEL-21	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	2847
Dissolved oxygen	%	90.6
Dissolved oxygen	mg/L	8.49

pH	pH units	7.97
Temperature	°C	18.2
Conventional Parameters		
Hardness, as CaCO ₃ (D)	mg/L	946
Hardness, as CaCO ₃ (T)	ug/L	928
pH	pH units	8
Total alkalinity, as CaCO ₃	mg/L	110
Total dissolved solids	mg/L	2020
Total suspended solids	mg/L	2
Turbidity	NTU	0.7
Major Ions		
Calcium	mg/L	303
Chloride	mg/L	800
Cyanide	mg/L	< 0.0050
Fluoride	mg/L	0.21
Magnesium	mg/L	45.9
Potassium	mg/L	21.9
Sodium	mg/L	214
Sulphate	mg/L	250
Nutrients and Chlorophyll a		
Nitrate	mg/L	1.9
Nitrate + nitrite	mg/L	1.92
Nitrite	mg/L	0.019
Orthophosphate	mg/L	0.015
Total ammonia	mg/L	0.16
Total phosphorus	mg/L	< 0.020
Total Metals		
Aluminum	mg/L	0.0277
Antimony	mg/L	0.0027
Arsenic	mg/L	0.0595
Barium	mg/L	0.145

Beryllium	mg/L	< 0.00020
Bismuth	mg/L	< 0.0020
Boron	mg/L	0.507
Cadmium	mg/L	0.000127
Calcium	mg/L	293
Chromium	mg/L	< 0.0020
Cobalt	mg/L	0.00912
Copper	mg/L	0.0065
Iron	mg/L	0.052
Lead	mg/L	0.00139
Lithium	mg/L	0.275
Magnesium	mg/L	48
Manganese	mg/L	0.547
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0165
Nickel	mg/L	0.0503
Potassium	mg/L	21
Selenium	mg/L	0.00041
Silicon	mg/L	3.14
Silver	mg/L	< 0.000040
Sodium	mg/L	213
Strontium	mg/L	4.33
Sulphur	mg/L	84.1
Thallium	mg/L	0.000022
Tin	mg/L	< 0.01
Titanium	mg/L	< 0.01
Uranium	mg/L	0.00705
Vanadium	mg/L	< 0.01
Zinc	mg/L	< 0.01
Zirconium	mg/L	0.0004
Dissolved Metals		

Aluminum	mg/L	0.0151
Antimony	mg/L	0.0027
Arsenic	mg/L	0.0648
Barium	mg/L	0.152
Beryllium	mg/L	< 0.00020
Bismuth	mg/L	< 0.0020
Boron	mg/L	0.478
Cadmium	mg/L	0.000137
Chromium	mg/L	< 0.0020
Cobalt	mg/L	0.00895
Copper	mg/L	0.007
Iron	mg/L	0.011
Lead	mg/L	< 0.00040
Lithium	mg/L	0.263
Manganese	mg/L	0.526
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0174
Nickel	mg/L	0.0478
Selenium	mg/L	0.00045
Silicon	mg/L	3.14
Silver	mg/L	< 0.000040
Strontium	mg/L	4.6
Sulphur	mg/L	85.1
Thallium	mg/L	0.000024
Tin	mg/L	< 0.01
Titanium	mg/L	< 0.01
Uranium	mg/L	0.00738
Vanadium	mg/L	< 0.01
Zinc	mg/L	< 0.01
Zirconium	mg/L	0.00041

MEL-22	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	8031
Dissolved oxygen	%	70
Dissolved oxygen	mg/L	6.54
pH	pH units	7.93
Temperature	°C	17.3
Conventional Parameters		
Hardness, as CaCO ₃ (D)	mg/L	2080
Hardness, as CaCO ₃ (T)	mg/L	2020
pH	pH units	7.75
Total alkalinity, as CaCO ₃	mg/L	79
Total dissolved solids	mg/L	5360
Total suspended solids	mg/L	4
Turbidity	NTU	0.4
Major Ions		
Calcium	mg/L	600
Chloride	mg/L	2700
Cyanide	mg/L	< 0.025
Fluoride	mg/L	0.11
Magnesium	mg/L	142
Potassium	mg/L	64.1
Sodium	mg/L	922
Sulphate	mg/L	330
Nutrients and Chlorophyll a		
Nitrate	mg/L	36.8
Nitrate + nitrite	mg/L	37.8
Nitrite	mg/L	1.03
Orthophosphate	mg/L	< 0.010

Total ammonia	mg/L	8.6
Total phosphorus	mg/L	< 0.020
Total Metals		
Aluminum	mg/L	0.023
Antimony	mg/L	< 0.0025
Arsenic	mg/L	0.00377
Barium	mg/L	0.178
Beryllium	mg/L	< 0.00050
Bismuth	mg/L	< 0.0050
Boron	mg/L	0.676
Cadmium	mg/L	0.000129
Calcium	mg/L	569
Chromium	mg/L	< 0.0050
Cobalt	mg/L	0.0018
Copper	mg/L	0.0042
Iron	mg/L	< 0.05
Lead	mg/L	< 0.0010
Lithium	mg/L	0.376
Magnesium	mg/L	146
Manganese	mg/L	0.371
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0067
Nickel	mg/L	0.0279
Potassium	mg/L	60.8
Selenium	mg/L	< 0.00050
Silicon	mg/L	< 0.5
Silver	mg/L	< 0.00010
Sodium	mg/L	916
Strontium	mg/L	12.5
Sulphur	mg/L	130
Thallium	mg/L	0.000117

Tin	mg/L	< 0.025
Titanium	mg/L	< 0.025
Uranium	mg/L	0.00544
Vanadium	mg/L	< 0.025
Zinc	mg/L	< 0.025
Zirconium	mg/L	< 0.00050
Dissolved Metals		
Aluminum	mg/L	< 0.015
Antimony	mg/L	< 0.0025
Arsenic	mg/L	0.0044
Barium	mg/L	0.184
Beryllium	mg/L	< 0.00050
Bismuth	mg/L	< 0.0050
Boron	mg/L	0.632
Cadmium	mg/L	0.000132
Chromium	mg/L	< 0.0050
Cobalt	mg/L	0.0018
Copper	mg/L	0.0046
Iron	mg/L	0.027
Lead	mg/L	< 0.0010
Lithium	mg/L	0.36
Manganese	mg/L	0.342
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0076
Nickel	mg/L	0.0268
Selenium	mg/L	0.00053
Silicon	mg/L	< 0.5
Silver	mg/L	< 0.00010
Strontium	mg/L	13.4
Sulphur	mg/L	133
Thallium	mg/L	0.00013

Tin	mg/L	< 0.025
Titanium	mg/L	< 0.025
Uranium	mg/L	0.00582
Vanadium	mg/L	< 0.025
Zinc	mg/L	< 0.025
Zirconium	mg/L	< 0.00050

MEL-23	Sample date	8/4/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	12501
Dissolved oxygen	%	76.1
Dissolved oxygen	mg/L	6.91
pH	pH units	7.83
Temperature	°C	18
Conventional Parameters		
Hardness, as CaCO ₃ (D)	mg/L	1510
Hardness, as CaCO ₃ (T)	mg/L	1550
pH	pH units	8.1
Total alkalinity, as CaCO ₃	mg/L	270
Total dissolved solids	mg/L	7970
Total suspended solids	mg/L	8
Turbidity	NTU	2
Major Ions		
Calcium	mg/L	178
Chloride	mg/L	3900
Cyanide	mg/L	0.005
Fluoride	mg/L	0.53
Magnesium	mg/L	258

Potassium	mg/L	117
Sodium	mg/L	2220
Sulphate	mg/L	790
Nutrients and Chlorophyll a		
Nitrate	mg/L	15.5
Nitrate + nitrite	mg/L	16.6
Nitrite	mg/L	1.09
Orthophosphate	mg/L	0.01
Total ammonia	mg/L	11
Total phosphorus	mg/L	0.047
Total Metals		
Aluminum	mg/L	0.085
Antimony	mg/L	0.0084
Arsenic	mg/L	0.0235
Barium	mg/L	0.181
Beryllium	mg/L	< 0.0010
Bismuth	mg/L	< 0.01
Boron	mg/L	2.43
Cadmium	mg/L	< 0.00010
Calcium	mg/L	177
Chromium	mg/L	< 0.01
Cobalt	mg/L	0.0072
Copper	mg/L	0.0065
Iron	mg/L	0.185
Lead	mg/L	< 0.0020
Lithium	mg/L	0.062
Magnesium	mg/L	270
Manganese	mg/L	0.727
Mercury	mg/L	0.00002
Molybdenum	mg/L	0.025
Nickel	mg/L	0.114

Potassium	mg/L	112
Selenium	mg/L	0.0022
Silicon	mg/L	3.56
Silver	mg/L	< 0.00020
Sodium	mg/L	2170
Strontium	mg/L	2.4
Sulphur	mg/L	289
Thallium	mg/L	< 0.00010
Tin	mg/L	< 0.05
Titanium	mg/L	< 0.05
Uranium	mg/L	0.0315
Vanadium	mg/L	< 0.05
Zinc	mg/L	< 0.05
Zirconium	mg/L	0.0047
Dissolved Metals		
Aluminum	mg/L	< 0.03
Antimony	mg/L	0.0083
Arsenic	mg/L	0.0247
Barium	mg/L	0.191
Beryllium	mg/L	< 0.0010
Bismuth	mg/L	< 0.01
Boron	mg/L	2.24
Cadmium	mg/L	0.00013
Chromium	mg/L	< 0.01
Cobalt	mg/L	0.0068
Copper	mg/L	0.0075
Iron	mg/L	< 0.05
Lead	mg/L	< 0.0020
Lithium	mg/L	0.059
Manganese	mg/L	0.652
Mercury	mg/L	0.00001

Molybdenum	mg/L	0.029
Nickel	mg/L	0.111
Selenium	mg/L	0.0025
Silicon	mg/L	3.34
Silver	mg/L	< 0.00020
Strontium	mg/L	2.56
Sulphur	mg/L	308
Thallium	mg/L	< 0.00010
Tin	mg/L	< 0.05
Titanium	mg/L	< 0.05
Uranium	mg/L	0.0338
Vanadium	mg/L	< 0.05
Zinc	mg/L	< 0.05
Zirconium	mg/L	0.0045

MEL-26	Sample date	8/10/2020	8/16/2020	8/23/2020	8/31/2020
Parameter	Unit				
Conductivity	uS/cm	32334		28579	26510
Dissolved oxygen	%			68.9	78
Dissolved oxygen	mg/L	9.64		6.74	7.71
pH	pH units	7.63		7.3	7.07
Temperature	°C	13.1		11.3	11.3
Dissolved organic carbon	mg/L	22	22	19	11
Dissolved Oxygen	mg/L	9.64	10.1	10.2	10
Hardness, as CaCO ₃ (D)	mg/L	6280	5950	4800	3990
Hardness, as CaCO ₃ (T)	mg/L	5980	5890	5080	3750
pH	pH units	7.5	7.29	7.45	7.21

Specific conductivity	umhos/cm	32000	32000	28000	26000
Total alkalinity, as CaCO ₃	mg/L	93	67	70	41
Total dissolved solids	mg/L	21200	21100	19400	17300
Total organic carbon	mg/L	22	23	20	12
Total suspended solids	mg/L	25	18	46	7
Turbidity	NTU	2.1	0.8	0.7	0.8
Volatile TSS	mg/L	15	11	34	6
Bicarbonate, as CaCO ₃	mg/L	93	67	69	41
Calcium	mg/L	1280	1230	1050	768
Carbonate, as CaCO ₃	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	11000	9500	8700	8200
Cyanide	mg/L	0.059	0.063	0.049	0.082
Cyanide (free)	ug/L	16	19	24	21
Cyanide (WAD)	mg/L	0.011	0.017	0.014	0.016
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	748	700	526	502
Potassium	mg/L	225	218	172	171
Silica	mg/L	3.8	4.4	4.3	3
Sodium	mg/L	5320	4760	3760	4120
Sulphate	mg/L	1200	1200	990	930
Nitrate	mg/L	65	52.4	58.3	49.9
Nitrate + nitrite	mg/L	66.2	53.5	59.4	50.9
Nitrite	mg/L	1.23	1.16	1.03	0.995
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
Total ammonia	mg/L	36	35	29	32
Total Kjeldahl nitrogen	mg/L	43	49	41	30
Total phosphorus	mg/L	0.057	0.068	0.053	0.033
Aluminum	mg/L	0.404	0.502	0.345	0.327

Antimony	mg/L	< 0.01	< 0.0050	< 0.0050	< 0.01
Arsenic	mg/L	0.0147	0.0184	0.0134	0.0067
Barium	mg/L	0.258	0.26	0.238	0.155
Beryllium	mg/L	< 0.0020	< 0.0010	< 0.0010	< 0.0020
Bismuth	mg/L	< 0.02	< 0.01	< 0.01	< 0.02
Boron	mg/L	< 1	0.888	0.824	< 1
Cadmium	mg/L	< 0.00020	0.00021	0.00018	< 0.00020
Calcium	mg/L	1240	1240	1110	712
Chromium	mg/L	< 0.02	< 0.01	< 0.01	< 0.02
Cobalt	mg/L	0.0096	0.0098	0.0088	0.0049
Copper	mg/L	< 0.01	0.0063	0.0055	< 0.01
Iron	mg/L	< 0.2	< 0.1	< 0.1	< 0.2
Lead	mg/L	0.0051	0.0051	0.0043	< 0.0040
Lithium	mg/L	0.62	0.658	0.574	0.238
Magnesium	mg/L	699	680	563	478
Manganese	mg/L	0.356	0.377	0.333	0.179
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.02	0.022	0.011	0.021
Nickel	mg/L	0.054	0.052	0.045	0.026
Potassium	mg/L	215	215	184	160
Selenium	mg/L	< 0.0020	0.0013	0.0014	< 0.0020
Silicon	mg/L	2.04	2.16	1.93	< 2
Silver	mg/L	< 0.00040	< 0.00020	0.00051	< 0.00040
Sodium	mg/L	5020	4700	4020	3890
Strontium	mg/L	28.8	31.6	27.3	17.1
Sulphur	mg/L	465	477	400	347
Thallium	mg/L	< 0.00020	0.00019	0.00016	< 0.00020
Tin	mg/L	< 0.1	< 0.05	< 0.05	< 0.1
Titanium	mg/L	< 0.1	< 0.05	< 0.05	< 0.1
Uranium	mg/L	0.0054	0.0069	0.0056	0.0022
Vanadium	mg/L	< 0.1	< 0.05	< 0.05	< 0.1

Zinc	mg/L	< 0.1	< 0.05	< 0.05	< 0.1
Zirconium	mg/L	< 0.0020	< 0.0010	< 0.0010	< 0.0020
Aluminum	mg/L	0.212	0.111	0.163	0.111
Antimony	mg/L	< 0.01	< 0.01	< 0.0050	< 0.0050
Arsenic	mg/L	0.0145	0.0147	0.0116	0.0065
Barium	mg/L	0.274	0.261	0.231	0.158
Beryllium	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0010
Bismuth	mg/L	< 0.02	< 0.02	< 0.01	< 0.01
Boron	mg/L	< 1	< 1	0.773	0.932
Cadmium	mg/L	0.00026	0.00022	0.00015	< 0.00010
Chromium	mg/L	< 0.02	< 0.02	< 0.01	< 0.01
Cobalt	mg/L	0.0097	0.0095	0.0084	0.0045
Copper	mg/L	0.0063	0.0057	0.0047	0.0032
Iron	mg/L	< 0.1	< 0.1	< 0.05	< 0.05
Lead	mg/L	0.0053	0.005	0.004	< 0.0020
Lithium	mg/L	0.64	0.676	0.521	0.251
Manganese	mg/L	0.374	0.378	0.335	0.176
Mercury	mg/L	0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.02	< 0.02	0.01	0.022
Nickel	mg/L	0.055	0.049	0.046	0.024
Selenium	mg/L	< 0.0020	< 0.0020	0.0011	< 0.0010
Silicon	mg/L	2.04	2.11	1.52	1.41
Silver	mg/L	< 0.00040	< 0.00040	< 0.00020	< 0.00020
Strontium	mg/L	29.9	31.3	26.2	18.7
Sulphur	mg/L	495	489	350	375
Thallium	mg/L	< 0.00020	< 0.00020	0.00017	< 0.00010
Tin	mg/L	< 0.1	< 0.1	< 0.05	< 0.05
Titanium	mg/L	< 0.1	< 0.1	< 0.05	< 0.05
Uranium	mg/L	0.0055	0.0061	0.005	0.0021
Vanadium	mg/L	< 0.1	< 0.1	< 0.05	< 0.05
Zinc	mg/L	< 0.1	< 0.1	< 0.05	< 0.05

Zirconium	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0010
Radium-226	Bq/l	0.22	0.18	0.18	0.16
LC50 (96h) - Threespine Stickleback	%	Non-lethal	Non-lethal	Non-lethal	Non-lethal

MEL-SR1	Sample date	8/10/2020	8/21/2020	8/30/2020
Parameter	Unit			
Field Measured				
Conductivity	uS/cm	1104		
Dissolved oxygen	%	61.8		
Dissolved oxygen	mg/L	6.55		
pH	pH units	7.31		
Temperature	°C	11.5		
Conventional Parameters				
Hardness, as CaCO ₃ (T)	mg/L	456	615	558
pH	pH units	7.95	8	7.89
Total alkalinity, as CaCO ₃	mg/L	250	180	220
Total dissolved solids	mg/L	925	1460	1070
Total suspended solids	mg/L	6	3	5
Turbidity	NTU	1	0.3	1.4
Major Ions				
Chloride	mg/L	240	310	260
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	0.15	0.12	0.13
Sulphate	mg/L	140	250	230
Nutrients and Chlorophyll a				
Nitrate	mg/L	0.34	0.43	0.49
Nitrate + nitrite	mg/L	0.34	0.43	0.49
Nitrite	mg/L	< 0.010	< 0.010	< 0.010

Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010
Total ammonia	mg/L	0.29	< 0.050	0.37
Total phosphorus	mg/L	< 0.020	< 0.020	< 0.020
General Organics				
Total oil and grease	mg/L	< 0.50	< 0.50	< 0.50
Total Metals				
Aluminum	mg/L	0.0961	0.0268	0.289
Antimony	mg/L	< 0.00050	< 0.00050	0.00054
Arsenic	mg/L	0.00383	0.00349	0.00671
Barium	mg/L	0.0559	0.0809	0.0663
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.114	0.106	0.116
Cadmium	mg/L	0.000048	0.000025	0.000047
Calcium	mg/L	138	191	168
Chromium	mg/L	< 0.0010	< 0.0010	0.0019
Cobalt	mg/L	0.0006	0.00057	0.00102
Copper	mg/L	0.00397	0.00456	0.00651
Iron	mg/L	0.312	0.09	0.91
Lead	mg/L	< 0.00020	< 0.00020	0.00032
Lithium	mg/L	0.0242	0.0638	0.0289
Magnesium	mg/L	27	33.7	33.8
Manganese	mg/L	0.0447	0.0234	0.0466
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	0.0011	< 0.0010
Nickel	mg/L	0.0304	0.0288	0.0679
Potassium	mg/L	12.3	14.2	13.6
Selenium	mg/L	0.00015	0.00021	0.0002
Silicon	mg/L	2.87	3	3.33
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	116	123	128

Strontium	mg/L	0.773	1.38	0.945
Sulphur	mg/L	44.8	84.8	76.7
Thallium	mg/L	0.000012	0.000015	0.000017
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	0.0176
Uranium	mg/L	0.00225	0.00289	0.00312
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0816	0.0495	0.126
Zirconium	mg/L	0.00014	< 0.00010	0.00022

MEL-SR10	Sample date	8/10/2020
Parameter	Unit	
Field Measured		
Conductivity	uS/cm	32991
Dissolved oxygen	%	103.7
Dissolved oxygen	mg/L	9.4
pH	pH units	7.52
Temperature	°C	10.6
Conventional Parameters		
Hardness, as CaCO ₃ (T)	mg/L	5230
pH	pH units	7.85
Total alkalinity, as CaCO ₃	mg/L	100
Total dissolved solids	mg/L	31300
Total suspended solids	mg/L	26
Turbidity	NTU	0.5
Major Ions		
Chloride	mg/L	15000
Cyanide	mg/L	< 0.0050
Fluoride	mg/L	0.57

Sulphate	mg/L	2200
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrate + nitrite	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Orthophosphate	mg/L	0.014
Total ammonia	mg/L	0.43
Total phosphorus	mg/L	0.051
General Organics		
Total oil and grease	mg/L	< 0.50
Total Metals		
Aluminum	mg/L	< 0.15
Antimony	mg/L	< 0.025
Arsenic	mg/L	< 0.0050
Barium	mg/L	< 0.05
Beryllium	mg/L	< 0.0050
Bismuth	mg/L	< 0.05
Boron	mg/L	3.78
Cadmium	mg/L	< 0.00050
Calcium	mg/L	355
Chromium	mg/L	< 0.05
Cobalt	mg/L	< 0.01
Copper	mg/L	< 0.025
Iron	mg/L	< 0.5
Lead	mg/L	< 0.01
Lithium	mg/L	0.15
Magnesium	mg/L	1050
Manganese	mg/L	< 0.05
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.05
Nickel	mg/L	< 0.05

Potassium	mg/L	331
Selenium	mg/L	< 0.0050
Silicon	mg/L	< 5
Silver	mg/L	< 0.0010
Sodium	mg/L	9080
Strontium	mg/L	7.21
Sulphur	mg/L	860
Thallium	mg/L	< 0.00050
Tin	mg/L	< 0.25
Titanium	mg/L	< 0.25
Uranium	mg/L	< 0.0050
Vanadium	mg/L	< 0.25
Zinc	mg/L	< 0.25
Zirconium	mg/L	< 0.0050

SECTION 3 • MATERIAL MANAGEMENT

3.1 LANDFILL / LANDFARM

The volume of material placed into the landfill is evaluated through periodic surveys. According to the most recent survey done April 7th 2020 the landfill contained approximately 18,661 m³ of material.

In August 2020 no contaminated soil was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 121,069 tonnes of ore were processed through the Mill in August 2020.

3.3 WASTE ROCK STORAGE FACILITY

In August 2020, a total of 36,048 tonnes of waste rock was removed in the mine development process. 9,339 tonnes were used as underground dry rockfill. 8,518 tonnes was stockpiled for progressive closure cover.

3.4 TAILINGS

84,899 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in August 2020. 36,170 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

All spills reported internally (16) are listed in the table 4.1 and were managed according to Agnico's spill contingency plan. Spills were contained and cleaned up, contaminated material was disposed of in an appropriate manner, and the clean-up actions were monitored closely by the Environment Department. 4 reportable spills occurred in August 2020.

Table 4.1: Summary of Agnico's Spill Reports in August 2020

Date and time of occurrence	If material not listed in dropdown or more details, enter here	Estimated quantity (l)	Exact location of incident	Description of incident	Describe immediate corrective actions
Tuesday, August 04, 2020 6:00:00 AM	Hydraulic Oil	2.00	Parking	The oil filter exploded when the equipment was parked in the parking.	The spill was cleaned up and the contaminated material was disposed of adequately.
Thursday, August 06, 2020 11:30:00 PM	Ferric Sulfate	500.00	Tailing Dewatering Building	A 988 loader tore through a sea can and punched a 1000L ferric sulfate tote.	Supervisor, ERT and environment were notified. Work in the area was stopped.

					Situation was assessed. JHA was written up to begin clean up. Contaminated material was disposed of adequately.
Friday, August 07, 2020 8:30:00 PM	Rock Drill Oil	2.00	Portal 1 on Emulsion Pad	Up on arrival to the fuel truck a spill was observed under the equipment, it was oil from the rock drill.	A spill kit was used, the spill was contained and cleaned up, the contaminated material was disposed of adequately.
Sunday, August 09, 2020 12:00:00 PM	Treated saline water	1,000.00	CP5 - between SP3 and RO	During the commissioning of the truck fill station there were multiple leaks on the existing line and new filter system between SP3 and the discharge to sea truck loading area. All water from the spill will lead towards CP5.	The pumps were stopped and the leaks repaired.
Wednesday, August 12, 2020 8:10:00 PM	Fuel	300.00	Tiri 2	During the loading of the 1506 haul truck by the 1250 excavator, a rock fall from the bucket and hit haul truck fuel tank.	The Haul Truck operator backed forward to park into a safe location, he notified his supervisor and used a complete spill kit to reduce the spreading. The mechanics arrived few minutes after and plugged rags into the hole to limit the spreading radius and collected the rest of the spill into a barrel.
Thursday, August 13, 2020 5:00:00 AM	Coolant	60.00	WRSF3	A hose busted on the top of the radiator.	A spill kit was used, the spill was contained and cleaned up, the contaminated material was disposed of adequately.
Saturday, August 15, 2020 4:30:00 AM	Engine Oil	1.00	OP2	There was an engine oil leak while the vehicle was parked.	A spill pad was used, the spill was contained and cleaned up, the contaminated material was disposed of adequately.
Sunday, August 16, 2020 8:30:00 PM	Hydraulic Oil	30.00	P2 Area	While dumping a load of Ore on P2 area, an O-ring busted on a hydraulic hose causing a 30l spill.	Absorbent pads were used, the spill was contained and cleaned up, the contaminated material was disposed of adequately.

Friday, August 21, 2020 11:00:00 PM	Coolant - Glycol	30.00	WRSF3	A coolant hose busted on the D8 Bulldozer.	The spill was cleaned up and the contaminated material was disposed of adequately.
Sunday, August 23, 2020 1:00:00 AM	Treated Effluent	NA	MEL-26	During discharge to sea, regulatory samples were collected at compliance point MEL-26 on August 23, 2020. Partial results from the sample were received on August 31, 2020, indicating TSS levels of 46 mg/L and volatile TSS levels of 35 mg/L.	As due diligence, Agnico Eagle Mines Ltd. has stopped discharge on August 31, 2020 until the cause of this exceedance is identified and appropriate corrective measures are implemented.
Sunday, August 23, 2020 2:00:00 PM	Slurry without chemical	15 m3	South of the mill (Grinding Area)	There was a communication problem between the trash screen #2 and the HMI	The mill was stopped, the material was picked up and disposed of adequately.
Sunday, August 23, 2020 6:30:00 PM	Oil	5.00	Parking - East MSB	While going for the site cleanup, the worker noticed an ongoing spill under Tractor 18, parked in the east side of the MSB building.	The spill was cleaned up and the contaminated material was disposed of adequately.
Monday, August 24, 2020 1:00:00 AM	Granular Activated Carbon	5 gallons		Worker was relocating a tote of tis granular activated carbon and when he went to place it in front of another tote containing the same substance. The worker went to close and his fork punctured a hole in the tote allowing a small amount of the substance to leak out.	The spill was cleaned up and the contaminated material was disposed of adequately.
Monday, August 24, 2020 1:00:00 AM	Propylene Glycol	20.00	Vent raise room 5	The open pit had a blast on the evening of Aug 24th and a boulder flung approx. 360m through the roof of room 5 damaging the large heating coil, this coil was filled with propylene glycol.	Environment was called and a perimeter was established, the glycol was cleaned up using absorbent pads and the rest was mopped up in the furnace rooms. The contaminated material was disposed of adequately.

Tuesday, August 25, 2020 8:00:00 PM	Hydraulic Oil	70.00	On North Wall Rock Breaker	A hydraulic hose broke on the rock breaker causing oil to spill inside the facility, and approximately 70L migrated outside the building onto the pad.	Absorbent pads were used, the spill was contained and cleaned up, the contaminated material was disposed of adequately.
Wednesday, August 26, 2020 8:30:00 AM	Hydraulic Oil	70.00	Buggy bin	A hose came loose.	Equipment was turned off; spill kit was deployed and environment was called for support- drip tray was also installed. The contaminated material was disposed of adequately.