



Meliadine Gold Project
NWB 2AM-MEL1631
June, 2019 Monthly Report

Prepared for:

Nunavut Water Board

Prepared by:

Agnico Eagle Mines Limited – Meliadine Division

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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 June 2019.

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 June 2019

	Monthly Usage (m ³)
Camp and Mill (MEL-11)	24,087
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total June	24,087
Year to date 2019	107,245

2.2 DEWATERING ACTIVITIES

In June 2019 no dewatering activity occurred

2.3 CP1

Discharge from CP1 into Meliadine Lake via the Final Discharge Point (MEL-14) ended September 3rd 2018.

2.4 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 June 2019.

2.5 SEWAGE TREATMENT PLANT

In June 2019, 2,984m³ of treated wastewater was discharged into CP1. 88m³ of sludge was removed during the month. The majority of the sludge is disposed of in the Tailings Storage Facility as approved, the sludge can also be utilized as nutrient in the site landfarm or shipped to the south with Agnico Eagle's hazmat if needed.

2.6 CONTAINMENTS

Discharged from the Itivia fuel containment facility (Station Mel-25) occurred in June and approximately 1000m³ was discharged. Water sample complied with the water Licence criteria.

2.7 MONITORING ANALYTICAL DATA

In June, numerous samples related to the water Licence were sampled. For MEL-14, the analysis results are from the pre-discharge sample. See below the analytical results from these monitoring stations. No exceedance occurred during the month of June.

MEL-11	Sample Date	6/2/2019
Parameters	Units	
WQTC02-Conventional Parameters		
pH	pH units	7.41
Specific conductivity	umhos/cm	110
Hardness, Total	mg/L	33.1
Hardness, Dissolved	mg/L	32.0
Total suspended solids	mg/L	< 1
Total organic carbon	mg/L	3.3
Dissolved organic carbon	mg/L	2.8
Total Dissolved Solids	mg/L	95
Turbidity	NTU	0.2
WQTC03-Major Ions		
Alkalinity, Total as CaCO3	mg/L	26
Bicarbonate, as CaCO3	mg/L	25
Calcium	mg/L	10.2
Carbonate, as CaCO3	mg/L	< 1.0
Chloride	mg/L	14
Cyanide Free	mg/L	< 0.0010
Cyanide, Total	mg/L	< 0.0050
Cyanide, WAD	mg/L	< 0.0010
Magnesium	mg/L	1.61
Potassium	mg/L	1.18
Sodium	mg/L	6.38
Sulphate	mg/L	5.5
Silica	mg/L	0.60
WQTC04-Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	< 0.050
Total Kjeldahl nitrogen	mg/L	0.19
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	< 0.010
WQTC06-Total Metals		
Aluminum	mg/L	< 0.0050
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00033
Barium	mg/L	0.0130

Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	10.4
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00080
Iron	mg/L	0.03
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.72
Manganese	mg/L	0.0057
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	1.26
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.336
Silver	mg/L	< 0.000020
Sodium	mg/L	6.78
Strontium	mg/L	0.0537
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
WQTC07-Dissolved Metals		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00029
Barium	mg/L	0.0128
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00075
Iron	mg/L	0.0081
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0013
Mercury	mg/L	< 0.000050

Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0530
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
WQTC08-Volatile Organics		
Benzene	mg/L	< 0.00020
Ethylbenzene	mg/L	< 0.00020
Toluene	mg/L	< 0.00020
Xylenes	mg/L	< 0.00040
m,p-Xylenes	mg/L	< 0.00040
o-Xylene	mg/L	< 0.00020
F1 (C6-C10)-BTEX	mg/L	< 0.025
F1 (C6-C10)	mg/L	< 0.025
F2 (C10-C16)	mg/L	< 0.1
F3 (C16-C34)	mg/L	< 0.2
F4 (C34-C50)	mg/L	< 0.2
Reached baseline at C50	mg/L	YES

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-12	Sample Date	6/24/2019	6/24/2019	6/24/2019
	Sample Type	N	FD	FB
Parameters	Units			
WQTC01-Field Measured				
pH	pH units	7.32	-	-
Conductivity	uS/cm	2139	-	-
Temperature	°C	14.57	-	-
Dissolved oxygen	%	107.1	-	-
WQTC02-Conventional Parameters				
pH	pH units	7.36	7.45	6.15
Specific conductivity	umhos/cm	2000	2000	1.1
Hardness, Total	mg/L	413	418	< 0.5

Hardness, Dissolved	mg/L	428	424	< 0.50
Total suspended solids	mg/L	26	47	< 1
Total Dissolved Solids	mg/L	1570	1580	< 10
Turbidity	NTU	7.5	15	< 0.1
WQTC03-Major Ions				
Alkalinity, Total as CaCO ₃	mg/L	21	23	< 1.0
Calcium	mg/L	121	119	< 0.050
Chloride	mg/L	540	580	< 1.0
Cyanide	mg/L	0.0072	0.0071	< 0.0050
Fluoride	mg/L	0.11	< 0.10	< 0.10
Magnesium	mg/L	30.4	30.7	< 0.050
Potassium	mg/L	14.7	14.7	< 0.050
Sodium	mg/L	204	205	< 0.050
Sulphate	mg/L	77	76	< 1.0
WQTC04-Nutrients and Chlorophyll a				
Nitrate	mg/L	15.9	15.9	< 0.10
Nitrite	mg/L	0.293	0.302	< 0.010
Nitrate + nitrite	mg/L	16.2	16.2	< 0.10
Total ammonia	mg/L	5.2	5.4	< 0.050
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010
WQTC06-Total Metals				
Aluminum	mg/L	1.94	1.95	< 0.0030
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00613	0.00623	< 0.00010
Barium	mg/L	0.0682	0.0691	< 0.0010
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.176	0.191	< 0.05
Cadmium	mg/L	0.000021	0.000032	< 0.000010
Calcium	mg/L	118	119	< 0.05
Chromium	mg/L	0.0012	< 0.0010	< 0.0010
Cobalt	mg/L	0.00126	0.00129	< 0.00020
Copper	mg/L	0.00298	0.00346	< 0.00050
Iron	mg/L	1.44	1.43	< 0.01
Lead	mg/L	0.00080	0.00093	< 0.00020
Lithium	mg/L	0.0734	0.0750	< 0.0020
Magnesium	mg/L	29.1	29.2	< 0.05
Manganese	mg/L	0.203	0.207	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0019	0.0020	< 0.0010
Nickel	mg/L	0.0053	0.0053	< 0.0010
Potassium	mg/L	14.2	14.4	< 0.05
Selenium	mg/L	0.00011	0.00011	< 0.00010
Silicon	mg/L	0.677	0.703	< 0.1
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020

Sodium	mg/L	196	198	< 0.05
Strontium	mg/L	2.58	2.66	< 0.0010
Sulphur	mg/L	25.9	25.9	< 3
Thallium	mg/L	0.000038	0.000034	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00054	0.00055	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.429	0.441	< 0.0050
Zirconium	mg/L	< 0.00010	0.00013	< 0.00010
WQTC07-Dissolved Metals				
Aluminum	mg/L	0.181	0.19	< 0.0030
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00348	0.00351	< 0.00010
Barium	mg/L	0.0700	0.0698	< 0.0010
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.175	0.177	< 0.05
Cadmium	mg/L	0.000019	0.000019	< 0.000010
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	0.00114	0.00112	< 0.00020
Copper	mg/L	0.00195	0.00435	< 0.00020
Iron	mg/L	0.0275	0.0283	< 0.0050
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	0.0647	0.0653	< 0.0020
Manganese	mg/L	0.0690	0.0692	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0019	0.0019	< 0.0010
Nickel	mg/L	0.0047	0.0046	< 0.0010
Selenium	mg/L	0.00012	0.00011	< 0.00010
Silicon	mg/L	0.489	0.488	< 0.1
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	2.59	2.6	< 0.0010
Sulphur	mg/L	26.4	26.7	< 3.0
Thallium	mg/L	0.000033	0.000033	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00011	0.00011	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-14	Sample Date	6/24/2019
Parameters	Units	
Ungrouped Analytes		
Atypical colonies	CFU/100mL	4000
Aerobic heterotrophic bacteria	CFU/100mL	3100
Escherichia coli	CFU/100mL	< 2
Fecal Coliform	CFU/100mL	< 2
Total Coliform	CFU/100mL	900
WQTC01-Field Measured		
pH	pH units	7.25
Conductivity	uS/cm	1780
Temperature	°C	12.47
Dissolved oxygen	mg/L	11.41
Dissolved oxygen	%	110.2
WQTC02-Conventional Parameters		
pH	pH units	7.23
Temperature	C	11.5
Specific conductivity	umhos/cm	1700
Hardness, Total	mg/L	342
Hardness, Dissolved	mg/L	326
Dissolved Oxygen	mg/L	9.88
Total suspended solids	mg/L	3
Biochemical Oxygen Demand, 5 Day	mg/L	< 2
Total organic carbon	mg/L	4.8
Dissolved organic carbon	mg/L	4.4
Total Dissolved Solids	mg/L	915
Turbidity	NTU	0.6
WQTC03-Major Ions		
Alkalinity, Total as CaCO3	mg/L	12
Bicarbonate, as CaCO3	mg/L	12
Calcium	mg/L	92.8
Carbonate, as CaCO3	mg/L	< 1.0
Chloride	mg/L	450
Cyanide (free)	mg/L	0.0014
Cyanide	mg/L	0.0019
Cyanide	mg/L	0.013
Magnesium	mg/L	23.0
Potassium	mg/L	12.2
Sodium	mg/L	169
Sulphate	mg/L	52
Silica	mg/L	0.86
WQTC04-Nutrients and Chlorophyll a		
Nitrate	mg/L	11.8

Nitrite	mg/L	0.210
Nitrate + nitrite	mg/L	12.0
Total ammonia	mg/L	4.2
Total Kjeldahl nitrogen	mg/L	4.2
Total phosphorus	mg/L	0.021
Orthophosphate	mg/L	< 0.010
WQTC06-Total Metals		
Aluminum	mg/L	0.174
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00248
Barium	mg/L	0.0516
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.229
Cadmium	mg/L	0.000016
Calcium	mg/L	96.6
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00075
Copper	mg/L	0.00132
Iron	mg/L	0.119
Lead	mg/L	0.00026
Lithium	mg/L	0.0676
Magnesium	mg/L	24.6
Manganese	mg/L	0.0330
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0015
Nickel	mg/L	0.0034
Potassium	mg/L	12.9
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.475
Silver	mg/L	< 0.000020
Sodium	mg/L	177
Strontium	mg/L	1.96
Sulphur	mg/L	22.2
Thallium	mg/L	0.000024
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
WQTC07-Dissolved Metals		
Aluminum	mg/L	0.0335
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00230

Barium	mg/L	0.0516
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.231
Cadmium	mg/L	0.000014
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00069
Copper	mg/L	0.00115
Iron	mg/L	0.0901
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0674
Manganese	mg/L	0.0274
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0015
Nickel	mg/L	0.0033
Selenium	mg/L	0.00010
Silicon	mg/L	0.444
Silver	mg/L	< 0.000020
Strontium	mg/L	1.92
Sulphur	mg/L	20.3
Thallium	mg/L	0.000026
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
WQTC08-Volatile Organics		
Benzene	mg/L	< 0.00020
Ethylbenzene	mg/L	< 0.00020
Toluene	mg/L	< 0.00020
Xylenes	mg/L	< 0.00040
m,p-Xylenes	mg/L	< 0.00040
o-Xylene	mg/L	< 0.00020
F1 (C6-C10)-BTEX	mg/L	< 0.025
F1 (C6-C10)	mg/L	< 0.025
F2 (C10-C16)	mg/L	< 0.1
F3 (C16-C34)	mg/L	< 0.2
F4 (C34-C50)	mg/L	< 0.2
Reached baseline at C50	mg/L	YES
WQTC11-Toxicity		
Daphnia 48 h Static Acute Test - EC50	mg/L	> 100
Daphnia 48 h static acute test - LC50	mg/L	> 100
LC50 (96h) - Rainbow Trout	mg/L	> 100
Toxic Unit - Daphnia Magnia	mg/L	< 1

Toxic Unit - Rainbow Trout	mg/L	< 1
WQTC12-Radionuclides		
Radium-226	Bq/l	0.30

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

	Sample Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019
	Location	MEL-15	MEL-16	MEL-17	MEL-18
Parameters	Units				
WQTC01-Field Measured					
pH	pH units	7.91	7.82	7.97	7.86
Conductivity	uS/cm	106.5	70.7	256.6	140.1
Temperature	°C	8.16	10.63	15.72	4.88
Dissolved oxygen	mg/L	11.64	11.45	10.47	11.07
Dissolved oxygen	%	100.3	104.4	107	87.4
WQTC02-Conventional Parameters					
pH	pH units	7.39	7.13	7.47	7.53
Specific conductivity	umhos/cm	77	50	180	95
Hardness, Total	mg/L	29.4	17.9	57.9	33.1
Hardness, Dissolved	mg/L	30.8	19.2	19.0	35.0
Total suspended solids	mg/L	< 1	< 1	1	2
Total organic carbon	mg/L	4.5	3.3	6.1	3.8
Dissolved organic carbon	mg/L	4.0	2.6	6.3	3.3
Total Dissolved Solids	mg/L	40	25	155	75
Turbidity	NTU	0.3	0.3	0.4	0.5
WQTC03-Major Ions					
Alkalinity, Total as CaCO ₃	mg/L	27	12	25	23
Bicarbonate, as CaCO ₃	mg/L	27	12	25	23
Calcium	mg/L	10.4	6.31	6.37	11.8
Carbonate, as CaCO ₃	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	5.7	6.0	33	13
Cyanide, WAD	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cyanide, Free	mg/L	< 0.0010	< 0.0010	0.0095	< 0.0010
Cyanide, Total	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Magnesium	mg/L	1.15	0.825	0.748	1.33
Potassium	mg/L	0.847	0.599	0.614	0.899
Sodium	mg/L	2.64	1.46	1.21	2.38
Sulphate	mg/L	< 1.0	< 1.0	5.6	2.4
Silica	mg/L	0.57	0.11	0.70	0.45
WQTC04-Nutrients and Chlorophyll a					
Nitrate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010

Nitrate + nitrite	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	< 0.050	0.057	< 0.050	0.081
Total Kjeldahl nitrogen	mg/L	0.28	0.20	0.33	0.45
Total phosphorus	mg/L	0.022	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
WQTC05-General Organics					
Total oil and grease	mg/L	-	-	< 0.50	-
WQTC06-Total Metals					
Aluminum	mg/L	0.0096	0.0134	0.0096	0.0113
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00099	0.00130	0.00054	0.00193
Barium	mg/L	0.0110	0.0112	0.0223	0.0129
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	0.000028	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	9.88	5.9	19.1	11
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.00073	0.00054	0.00077	0.00050
Iron	mg/L	0.077	0.104	0.258	0.195
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	0.0073	0.0042
Magnesium	mg/L	1.14	0.76	2.51	1.38
Manganese	mg/L	0.0224	0.0207	0.0543	0.0411
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	0.0011	< 0.0010
Potassium	mg/L	0.795	0.554	1.66	0.815
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.298	< 0.1	0.372	0.268
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	3.01	1.29	7.41	2.49
Strontium	mg/L	0.0490	0.0307	0.202	0.0794
Sulphur	mg/L	< 3	< 3	< 3	< 3
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
WQTC07-Dissolved Metals					
Aluminum	mg/L	0.0036	-	-	< 0.0030
Antimony	mg/L	< 0.00050	-	-	< 0.00050

Arsenic	mg/L	0.00085	-	0.00051	0.00150
Barium	mg/L	0.0103	-	-	0.0129
Beryllium	mg/L	< 0.00010	-	-	< 0.00010
Bismuth	mg/L	< 0.0010	-	-	< 0.0010
Boron	mg/L	< 0.05	-	-	< 0.05
Cadmium	mg/L	< 0.000010	-	-	< 0.000010
Chromium	mg/L	< 0.0010	-	-	< 0.0010
Cobalt	mg/L	< 0.00020	-	-	< 0.00020
Copper	mg/L	0.00049	-	-	0.00035
Iron	mg/L	0.0708	-	-	0.113
Lead	mg/L	< 0.00020	-	-	< 0.00020
Lithium	mg/L	< 0.0020	-	-	0.0046
Manganese	mg/L	0.0212	-	-	0.0392
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	-	-	< 0.0010
Nickel	mg/L	< 0.0010	-	-	< 0.0010
Selenium	mg/L	< 0.00010	-	-	< 0.00010
Silicon	mg/L	0.308	< 0.1	-	0.288
Silver	mg/L	< 0.000020	-	-	< 0.000020
Strontium	mg/L	0.0473	0.0314	-	0.0772
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.000010	-	-	< 0.000010
Tin	mg/L	< 0.0050	-	-	< 0.0050
Titanium	mg/L	< 0.0050	-	-	< 0.0050
Uranium	mg/L	< 0.00010	-	-	< 0.00010
Vanadium	mg/L	< 0.0050	-	-	< 0.0050
Zinc	mg/L	< 0.0050	-	-	< 0.0050
Zirconium	mg/L	< 0.00010	-	-	< 0.00010
WQTC08-Volatile Organics					
Benzene	mg/L	-	-	< 0.00020	-
Ethylbenzene	mg/L	-	-	< 0.00020	-
Toluene	mg/L	-	-	< 0.00020	-
Xylenes	mg/L	-	-	< 0.00040	-
m,p-Xylenes	mg/L	-	-	< 0.00040	-
o-Xylene	mg/L	-	-	< 0.00020	-
F1 (C6-C10)-BTEX	mg/L	-	-	< 0.025	-
F1 (C6-C10)	mg/L	-	-	< 0.025	-

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-20	Sample Date	6/4/2019	6/9/2019	6/9/2019	6/9/2019	6/17/2019
	Sample Type	N	N	FD	FB	N
Parameters	Units					
WQTC01-Field Measured						
pH	pH units	6.98	7.22	-	-	7.86
Conductivity	uS/cm	706.1	1470	-	-	1240
Temperature	°C	4.1	7.44	-	-	10.08
Dissolved oxygen	mg/L	10.2	-	-	-	11
Dissolved oxygen	%	91.6	98.3	-	-	99.4
WQTC02-Conventional Parameters						
pH	pH units	7.69	7.93	7.83	6.24	7.73
Hardness, Total	mg/L	146	224	215	< 0.5	172
Hardness, Dissolved	mg/L	142	231	232	< 0.50	149
Total suspended solids	mg/L	130	16	17	< 1	290
Total Dissolved Solids	mg/L	455	700	695	< 10	620
Turbidity	NTU	180	27	27	< 0.1	280
WQTC03-Major Ions						
Alkalinity, Total as CaCO ₃	mg/L	66	70	69	< 1.0	67
Calcium	mg/L	39.6	69.7	69.1	< 0.050	37.7
Chloride	mg/L	140	190	200	< 1.0	170
Cyanide	mg/L	0.0067	< 0.0050	< 0.0050	< 0.0050	0.0064
Fluoride	mg/L	< 0.10	< 0.10	0.12	< 0.10	0.12
Magnesium	mg/L	10.6	13.9	14.4	< 0.050	13.4
Potassium	mg/L	8.31	11.8	12.3	< 0.050	9.02
Sodium	mg/L	77.2	88.6	91.7	< 0.050	103
Sulphate	mg/L	72	86	87	< 1.0	82
WQTC04-Nutrients and Chlorophyll a						
Nitrate	mg/L	5.94	1.70	1.69	< 0.10	5.14
Nitrite	mg/L	0.116	0.070	0.071	< 0.010	0.128
Nitrate + nitrite	mg/L	6.05	1.77	1.76	< 0.10	5.27
Total ammonia	mg/L	4.3	1.2	1.2	< 0.050	3.3
Total phosphorus	mg/L	0.15	0.043	0.037	< 0.020	0.36
Orthophosphate	mg/L	0.068	< 0.010	< 0.010	< 0.010	0.051
WQTC06-Total Metals						
Aluminum	mg/L	2.17	0.448	0.48	< 0.0030	5.95
Antimony	mg/L	0.00084	0.00358	0.00351	< 0.00050	0.0011
Arsenic	mg/L	0.0847	0.0247	0.0239	< 0.00010	0.0785
Barium	mg/L	0.0550	0.0337	0.0328	< 0.0010	0.0902
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020
Boron	mg/L	0.157	0.386	0.374	< 0.05	0.294
Cadmium	mg/L	0.000027	0.000013	0.000015	< 0.000010	0.000068

Calcium	mg/L	39.8	66.1	63.3	< 0.05	41.4
Chromium	mg/L	0.0052	0.0013	0.0014	< 0.0010	0.0150
Cobalt	mg/L	0.00340	0.00152	0.00151	< 0.00020	0.00686
Copper	mg/L	0.00874	0.00640	0.00630	< 0.00050	0.0202
Iron	mg/L	3.14	0.793	0.945	< 0.01	9.7
Lead	mg/L	0.00504	0.00102	0.00105	< 0.00020	0.0130
Lithium	mg/L	0.0056	0.0417	0.0406	< 0.0020	0.0114
Magnesium	mg/L	11.3	14.4	13.9	< 0.05	16.8
Manganese	mg/L	0.18	0.0646	0.0636	< 0.0010	0.226
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0040	0.0121	0.0118	< 0.0010	0.0051
Nickel	mg/L	0.0153	0.0124	0.0124	< 0.0010	0.0302
Potassium	mg/L	8.77	11.9	11.4	< 0.05	11
Selenium	mg/L	0.00024	0.00019	0.00019	< 0.00010	0.00027
Silicon	mg/L	4.57	2.46	2.33	< 0.1	12.3
Silver	mg/L	< 0.000020	0.000022	0.000023	< 0.000020	0.000078
Sodium	mg/L	75.1	89.8	86.9	< 0.05	99.1
Strontium	mg/L	0.267	0.736	0.725	< 0.0010	0.248
Sulphur	mg/L	24.8	28.6	27.8	< 3	24.5
Thallium	mg/L	0.000037	0.000020	0.000019	< 0.000010	0.000111
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01
Titanium	mg/L	0.124	0.0236	0.0229	< 0.0050	0.347
Uranium	mg/L	0.00302	0.00349	0.00344	< 0.00010	0.00505
Vanadium	mg/L	0.0059	< 0.0050	< 0.0050	< 0.0050	0.015
Zinc	mg/L	0.0097	< 0.0050	< 0.0050	< 0.0050	0.026
Zirconium	mg/L	0.00272	0.00067	0.00068	< 0.00010	0.00538
WQTC07-Dissolved Metals						
Aluminum	mg/L	0.0092	0.0157	0.0156	< 0.0030	0.0153
Antimony	mg/L	0.00093	0.00376	0.00372	< 0.00050	0.00107
Arsenic	mg/L	0.0670	0.0187	0.0188	< 0.00010	0.0352
Barium	mg/L	0.0220	0.0320	0.0314	< 0.0010	0.0281
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.156	0.384	0.369	< 0.05	0.266
Cadmium	mg/L	0.000011	0.000015	0.000015	< 0.000010	0.000012
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	0.00148	0.00085	0.00084	< 0.00020	0.00116
Copper	mg/L	0.00385	0.00451	0.00466	< 0.00020	0.00487
Iron	mg/L	0.0365	0.0143	0.0161	< 0.0050	0.0198
Lead	mg/L	0.00022	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	0.0028	0.0421	0.0426	< 0.0020	0.0034
Manganese	mg/L	0.136	0.0367	0.0379	< 0.0010	0.0838
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0043	0.0121	0.0122	< 0.0010	0.0054
Nickel	mg/L	0.0094	0.0104	0.0109	< 0.0010	0.0121

Selenium	mg/L	0.00020	0.00013	0.00015	< 0.00010	0.00023
Silicon	mg/L	1.08	1.85	1.83	< 0.1	1.26
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	0.255	0.717	0.715	< 0.0010	0.252
Sulphur	mg/L	25.8	32.0	31.5	< 3.0	25.7
Thallium	mg/L	0.000016	0.000013	0.000014	< 0.000010	0.000013
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00286	0.00357	0.00362	< 0.00010	0.00434
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	0.00030	0.00026	0.00024	< 0.00010	0.00031

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-21	Sample Date	6/4/2019	6/9/2019	6/9/2019	6/9/2019	6/17/2019
	Sample Type	N	N	FD	FB	N
Parameters	Units					
WQTC01-Field Measured						
pH	pH units	7.22	7.99	-	-	-
Conductivity	uS/cm	884.3	1205	-	-	-
Temperature	°C	6.4	3.83	-	-	-
Dissolved oxygen	mg/L	10.18	-	-	-	-
Dissolved oxygen	%	90.5	98.7	-	-	-
WQTC02-Conventional Parameters						
pH	pH units	7.70	7.79	7.83	6.18	7.87
Hardness, Total	mg/L	217	146	152	< 0.5	242
Hardness, Dissolved	mg/L	217	149	150	< 0.50	233
Total suspended solids	mg/L	22	110	100	< 1	6
Total Dissolved Solids	mg/L	605	525	540	< 10	685
Turbidity	NTU	37	160	150	< 0.1	6.8
WQTC03-Major Ions						
Alkalinity, Total as CaCO3	mg/L	69	65	65	< 1.0	72
Calcium	mg/L	64.4	41.5	41.5	< 0.050	68.7
Chloride	mg/L	180	150	140	< 1.0	200
Cyanide	mg/L	< 0.0050	0.014	0.014	< 0.0050	0.012
Fluoride	mg/L	< 0.10	0.12	0.11	< 0.10	< 0.10
Magnesium	mg/L	13.7	11.0	11.3	< 0.050	15.0
Potassium	mg/L	11.1	8.89	9.06	< 0.050	12.0
Sodium	mg/L	81.0	84.9	82.8	0.115	96.1

Sulphate	mg/L	84	75	70	< 1.0	91
WQTC04-Nutrients and Chlorophyll a						
Nitrate	mg/L	1.77	6.38	6.36	< 0.10	1.72
Nitrite	mg/L	0.056	0.132	0.133	< 0.010	0.074
Nitrate + nitrite	mg/L	1.82	6.51	6.49	< 0.10	1.79
Total ammonia	mg/L	1.3	4.3	4.3	< 0.050	1.3
Total phosphorus	mg/L	< 0.040	0.20	0.19	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	0.043	0.050	< 0.010	< 0.010
WQTC06-Total Metals						
Aluminum	mg/L	0.639	1.47	1.47	0.0030	0.172
Antimony	mg/L	0.00339	0.00091	0.00093	< 0.00050	0.00396
Arsenic	mg/L	0.0296	0.0711	0.0722	< 0.00010	0.0195
Barium	mg/L	0.0346	0.0445	0.0455	< 0.0010	0.0328
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.34	0.198	0.206	< 0.05	0.376
Cadmium	mg/L	0.000029	0.000021	0.000024	< 0.000010	0.000020
Calcium	mg/L	64	38.9	40.9	< 0.05	70.9
Chromium	mg/L	0.0018	0.0037	0.0036	< 0.0010	< 0.0010
Cobalt	mg/L	0.00196	0.00321	0.00321	< 0.00020	0.00094
Copper	mg/L	0.00785	0.00900	0.00914	< 0.00050	0.00494
Iron	mg/L	1.07	2.43	2.39	< 0.01	0.248
Lead	mg/L	0.00136	0.00438	0.00442	< 0.00020	0.00045
Lithium	mg/L	0.0379	0.0049	0.0050	< 0.0020	0.0425
Magnesium	mg/L	13.9	11.8	12.1	< 0.05	15.7
Manganese	mg/L	0.0881	0.161	0.164	< 0.0010	0.0400
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0101	0.0042	0.0041	< 0.0010	0.0126
Nickel	mg/L	0.0127	0.0164	0.0166	< 0.0010	0.0117
Potassium	mg/L	11.4	9.04	9.05	< 0.05	12.9
Selenium	mg/L	0.00022	0.00019	0.00020	< 0.00010	0.00016
Silicon	mg/L	2.65	3.31	3.45	< 0.1	2.18
Silver	mg/L	0.000029	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	80.7	83.4	85.3	< 0.05	97.3
Strontium	mg/L	0.72	0.257	0.263	< 0.0010	0.736
Sulphur	mg/L	27.9	25.1	25.9	< 3	33.8
Thallium	mg/L	0.000025	0.000036	0.000034	< 0.000010	0.000018
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	0.0314	0.0926	0.0917	< 0.0050	0.0067
Uranium	mg/L	0.00329	0.00340	0.00341	< 0.00010	0.00404
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	0.0074	0.0073	< 0.0050	< 0.0050

Zirconium	mg/L	0.00088	0.00240	0.00247	< 0.00010	0.00042
WQTC07-Dissolved Metals						
Aluminum	mg/L	0.0215	0.0083	0.0164	< 0.0030	0.0149
Antimony	mg/L	0.00347	0.00105	0.00106	< 0.00050	0.00398
Arsenic	mg/L	0.0220	0.0569	0.0568	< 0.00010	0.0169
Barium	mg/L	0.0291	0.0253	0.0259	< 0.0010	0.0311
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	0.335	0.205	0.195	< 0.05	0.41
Cadmium	mg/L	0.000017	0.000013	0.000014	< 0.000010	< 0.000010
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	0.00112	0.00143	0.00150	< 0.00020	0.00075
Copper	mg/L	0.00501	0.00445	0.00480	< 0.00020	0.00463
Iron	mg/L	0.0188	0.0279	0.0550	< 0.0050	0.0116
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	0.0371	0.0033	0.0032	< 0.0020	0.0426
Manganese	mg/L	0.0638	0.114	0.118	< 0.0010	0.0277
Molybdenum	mg/L	0.0102	0.0043	0.0043	< 0.0010	0.0131
Nickel	mg/L	0.0101	0.0106	0.0108	< 0.0010	0.0115
Selenium	mg/L	0.00015	0.00016	0.00019	< 0.00010	0.00014
Silicon	mg/L	1.63	1.27	1.29	< 0.1	1.85
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	0.712	0.248	0.255	< 0.0010	0.777
Sulphur	mg/L	28.0	28.1	29.5	< 3.0	28.8
Thallium	mg/L	0.000013	< 0.000010	0.000010	< 0.000010	0.000014
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	0.00333	0.00334	0.00326	< 0.00010	0.00389
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	0.00030	0.00028	0.00030	< 0.00010	0.00028

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-22	Sample Date	6/5/2019	6/5/2019	6/5/2019	6/9/2019	6/17/2019
	Sample Type	N	FD	FB	N	N
Parameters	Units					
WQTC01-Field Measured						

pH	pH units	7.5	-	-	7.66	7.71
Conductivity	uS/cm	3020	-	-	6582	7849
Temperature	°C	8.39	-	-	2.86	15.08
Dissolved oxygen	%	109	-	-	109.1	102.8
WQTC02-Conventional Parameters						
pH	pH units	7.56	7.55	6.18	7.58	7.70
Hardness, Total	mg/L	687	676	< 0.5	1060	1200
Hardness, Dissolved	mg/L	683	683	< 0.50	1010	1220
Total suspended solids	mg/L	4	4	< 1	7	5
Total Dissolved Solids	mg/L	1920	1850	< 10	2840	3340
Turbidity	NTU	3.2	2.6	< 0.1	4.7	1.8
WQTC03-Major Ions						
Alkalinity, Total as CaCO3	mg/L	46	44	< 1.0	53	64
Calcium	mg/L	202	202	< 0.050	301	356
Chloride	mg/L	810	860	< 1.0	1400	1600
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	43.7	43.8	< 0.050	62.1	79.1
Potassium	mg/L	17.4	17.6	< 0.050	26.4	32.6
Sodium	mg/L	279	282	< 0.050	413	526
Sulphate	mg/L	180	180	< 1.0	220	240
WQTC04-Nutrients and Chlorophyll a						
Nitrate	mg/L	8.54	8.48	< 0.10	11.9	13.5
Nitrite	mg/L	0.090	0.090	< 0.010	0.115	0.128
Nitrate + nitrite	mg/L	8.63	8.57	< 0.10	12.1	13.7
Total ammonia	mg/L	8.3	8.3	0.063	9.6	11
Total Kjeldahl nitrogen	mg/L	-	-	-	-	-
Total phosphorus	mg/L	0.031	0.033	< 0.020	0.028	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
WQTC06-Total Metals						
Aluminum	mg/L	0.127	0.0838	< 0.0030	0.077	0.0546
Antimony	mg/L	< 0.0010	< 0.0010	< 0.00050	< 0.0025	< 0.0010
Arsenic	mg/L	0.00416	0.00409	< 0.00010	0.00401	0.00348
Barium	mg/L	0.0609	0.0590	< 0.0010	0.0798	0.0900
Beryllium	mg/L	< 0.00020	< 0.00020	< 0.00010	< 0.00050	< 0.00020
Bismuth	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0050	< 0.0020
Boron	mg/L	0.144	0.144	< 0.05	< 0.25	0.259
Cadmium	mg/L	0.000118	0.000107	< 0.000010	0.000139	0.000120
Calcium	mg/L	202	200	0.09	313	346
Chromium	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0050	< 0.0020
Cobalt	mg/L	0.00141	0.00129	< 0.00020	0.0024	0.00140
Copper	mg/L	0.0032	0.0030	< 0.00050	0.0036	0.0037
Iron	mg/L	0.245	0.177	< 0.01	0.235	0.144
Lead	mg/L	0.00083	0.00070	< 0.00020	< 0.0010	0.00046
Lithium	mg/L	0.124	0.124	< 0.0020	0.229	0.236

Magnesium	mg/L	44.5	43.3	< 0.05	68.4	80.9
Manganese	mg/L	0.143	0.136	< 0.0010	0.204	0.0866
Mercury	mg/L	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0050	0.0027
Nickel	mg/L	0.0104	0.0098	< 0.0010	0.0174	0.0163
Potassium	mg/L	18.2	17.2	< 0.05	28.2	33.2
Selenium	mg/L	< 0.00020	< 0.00020	< 0.00010	< 0.00050	0.00021
Silicon	mg/L	1.13	1.02	< 0.1	1.1	0.828
Silver	mg/L	< 0.000040	0.000040	< 0.000020	< 0.00010	0.000055
Sodium	mg/L	286	278	< 0.05	465	544
Strontium	mg/L	4.05	4.01	< 0.0010	6.42	6.72
Sulphur	mg/L	61.1	59.6	< 3	77.2	90.1
Thallium	mg/L	0.000046	0.000044	< 0.000010	0.000052	0.000075
Tin	mg/L	< 0.01	< 0.01	< 0.0050	< 0.025	< 0.01
Titanium	mg/L	< 0.01	< 0.01	< 0.0050	< 0.025	< 0.01
Uranium	mg/L	0.00126	0.00123	< 0.00010	0.00203	0.00258
Vanadium	mg/L	< 0.01	< 0.01	< 0.0050	< 0.025	< 0.01
Zinc	mg/L	< 0.01	< 0.01	0.0255	< 0.025	< 0.01
Zirconium	mg/L	< 0.00020	< 0.00020	< 0.00010	< 0.00050	< 0.00020
WQTC07-Dissolved Metals						
Aluminum	mg/L	0.0105	0.0080	< 0.0030	0.0123	0.0292
Antimony	mg/L	< 0.0010	< 0.0010	< 0.00050	< 0.0010	< 0.0010
Arsenic	mg/L	0.00310	0.00315	< 0.00010	0.00302	0.00284
Barium	mg/L	0.0599	0.0605	< 0.0010	0.0795	0.0934
Beryllium	mg/L	< 0.00020	< 0.00020	< 0.00010	< 0.00020	< 0.00020
Bismuth	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0020	< 0.0020
Boron	mg/L	0.143	0.143	< 0.05	0.219	0.265
Cadmium	mg/L	0.000109	0.000097	< 0.000010	0.000131	0.000108
Chromium	mg/L	< 0.0020	< 0.0020	< 0.0010	< 0.0020	< 0.0020
Cobalt	mg/L	0.00125	0.00123	< 0.00020	0.00200	0.00135
Copper	mg/L	0.00271	0.00270	< 0.00020	0.00315	0.00362
Iron	mg/L	0.026	0.027	< 0.0050	0.041	0.038
Lead	mg/L	< 0.00040	< 0.00040	< 0.00020	< 0.00040	< 0.00040
Lithium	mg/L	0.125	0.125	< 0.0020	0.201	0.251
Manganese	mg/L	0.134	0.135	< 0.0010	0.177	0.0752
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0020	< 0.0020	< 0.0010	0.0021	0.0029
Nickel	mg/L	0.0097	0.0097	< 0.0010	0.0162	0.0175
Selenium	mg/L	< 0.00020	< 0.00020	< 0.00010	< 0.00020	< 0.00020
Silicon	mg/L	0.882	0.882	< 0.1	1.05	0.713
Silver	mg/L	< 0.000040	< 0.000040	< 0.000020	< 0.000040	< 0.000040
Strontium	mg/L	3.95	4.05	< 0.0010	5.68	7.6
Sulphur	mg/L	59.7	60.0	< 3.0	77.8	81.4
Thallium	mg/L	0.000040	0.000039	< 0.000010	0.000050	0.000068
Tin	mg/L	< 0.01	< 0.01	< 0.0050	< 0.01	< 0.01

Titanium	mg/L	< 0.01	< 0.01	< 0.0050	< 0.01	< 0.01
Uranium	mg/L	0.00124	0.00123	< 0.00010	0.00193	0.00260
Vanadium	mg/L	< 0.01	< 0.01	< 0.0050	< 0.01	< 0.01
Zinc	mg/L	< 0.01	< 0.01	< 0.0050	< 0.01	< 0.01
Zirconium	mg/L	< 0.00020	< 0.00020	< 0.00010	< 0.00020	< 0.00020

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-25	Sample Date	6/1/2019
Parameters	Units	
WQTC01-Field Measured		
pH	pH units	7.7
Conductivity	uS/cm	222.1
Temperature	°C	33.45
Dissolved oxygen	%	107.3
WQTC02-Conventional Parameters		
pH	pH units	7.70
Hardness, Total	mg/L	39.5
Total suspended solids	mg/L	3
WQTC04-Nutrients and Chlorophyll a		
Total ammonia	mg/L	0.19
WQTC05-General Organics		
Total oil and grease	mg/L	< 0.50
WQTC06-Total Metals		
Arsenic	mg/L	0.00064
Calcium	mg/L	9.51
Copper	mg/L	0.00431
Lead	mg/L	0.00025
Magnesium	mg/L	3.82
Nickel	mg/L	0.0043
Potassium	mg/L	4.08
Sodium	mg/L	29.4
Sulphur	mg/L	11.1
WQTC08-Volatile Organics		
Benzene	mg/L	< 0.00020
Ethylbenzene	mg/L	< 0.00020
Toluene	mg/L	< 0.00020
Xylenes	mg/L	< 0.00040
m,p-Xylenes	mg/L	< 0.00040
o-Xylene	mg/L	< 0.00020
F1 (C6-C10)-BTEX	mg/L	< 0.025
F1 (C6-C10)	mg/L	< 0.025

F2 (C10-C16)	mg/L	< 0.1
F3 (C16-C34)	mg/L	< 0.2
F4 (C34-C50)	mg/L	< 0.2

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

MEL-SR	Sample Date	6/3/2019	6/3/2019	6/3/2019	6/3/2019	6/3/2019	6/3/2019
	Location	MEL-SR1	MEL-SR7	MEL-SR11	MEL-SR14	MEL-SR13	MEL-SR12
Parameters	Units						
WQTC01-Field Measured							
pH	pH units	7.66	7.79	7.68	-	-	7.21
Conductivity	uS/cm	597	544	488	-	-	240
Temperature	°C	1.3	1.7	5.9	-	-	1.1
Dissolved oxygen	%	13.54	14.1	13.86	-	-	13.54
WQTC02-Conventional Parameters							
pH	pH units	7.90	7.82	7.82	7.53	-	-
Hardness, Total	mg/L	165	154	85.6	51.5	34.7	39.2
Total suspended solids	mg/L	3	5	1	2	-	-
Total Dissolved Solids	mg/L	365	345	280	155	-	-
Turbidity	NTU	2.8	4.3	1.3	1.3	-	-
WQTC03-Major Ions							
Alkalinity, Total as CaCO ₃	mg/L	90	94	70	42	-	-
Chloride	mg/L	67	46	61	25	-	-
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10	0.11	< 0.10	-	-
Sulphate	mg/L	59	57	40	27	-	-
WQTC04-Nutrients and Chlorophyll a							
Nitrate	mg/L	0.29	0.18	2.68	0.11	0.11	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	0.031	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	0.29	0.18	2.71	0.11	0.11	< 0.10
Total ammonia	mg/L	0.50	0.82	0.26	3.0	0.87	0.062
Total phosphorus	mg/L	0.030	0.023	< 0.020	0.033	< 0.020	0.031
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
WQTC05-General Organics							
Total oil and grease	mg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
WQTC06-Total Metals							
Aluminum	mg/L	0.0985	0.143	0.0474	0.0314	0.155	0.446
Arsenic	mg/L	0.00111	0.00089	0.00096	0.00042	0.00066	0.00121
Barium	mg/L	0.0232	0.0241	0.0113	0.0092	0.0087	0.0176

Cadmium	mg/L	0.000013	0.000012	0.000017	< 0.000010	0.000016	< 0.000010
Calcium	mg/L	51.8	48.9	22.6	15.2	11.3	11.9
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0014	0.0016
Copper	mg/L	0.00329	0.00335	0.00327	0.00249	0.00476	0.00538
Iron	mg/L	0.196	0.303	0.087	0.105	0.28	0.771
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00031	0.00056
Magnesium	mg/L	8.71	7.73	7.08	3.29	1.58	2.3
Manganese	mg/L	0.0309	0.0991	0.0032	0.0195	0.0098	0.0201
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	0.0027	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	0.0049	0.0038	0.0031	0.0014	0.0021	0.0021
Potassium	mg/L	5.24	5.05	4.18	4.98	2.01	2.75
Selenium	mg/L	< 0.00010	< 0.00010	0.00018	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	26.4	23.9	46.1	14	3.82	8.73
Sulphur	mg/L	19.8	18.6	11.9	7.91	6.05	6.2
Thallium	mg/L	< 0.000010	0.000010	0.000012	< 0.000010	< 0.000010	0.000014
Zinc	mg/L	0.0146	0.0135	< 0.0050	0.0060	0.0557	< 0.0050

MEL-SR	Sample Date	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019
	Location	MEL-SR1	MEL-SR7	MEL-SR11	MEL-SR13	MEL-SR14	MEL-SR15
Parameters	Units						
WQTC01-Field Measured							
pH	pH units	7.53	7.9	7.9	8.02	7.99	-
Conductivity	uS/cm	785.9	773.5	770.6	347	347.8	-
Temperature	°C	9.48	6.06	6.33	5.69	5.86	-
Dissolved oxygen	%	99.4	99.6	99.6	101.3	101.3	-
Turbidity	NTU	2.62	6.35	5.13	4.29	4.06	-
WQTC02-Conventional Parameters							
pH	pH units	7.99	7.98	7.90	7.90	7.77	7.62
Hardness, Total	mg/L	181	170	94.4	60.6	42.9	70.2
Total suspended solids	mg/L	< 1	3	3	< 10	5	3
Total Dissolved Solids	mg/L	390	340	270	115	110	175
Turbidity	NTU	1.5	2.4	3.1	0.7	1.1	1.3
WQTC03-Major Ions							
Alkalinity, Total as CaCO ₃	mg/L	88	93	63	42	43	39
Chloride	mg/L	85	68	46	31	12	36
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Fluoride	mg/L	0.11	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Sulphate	mg/L	68	66	43	24	23	29
WQTC04-Nutrients and Chlorophyll							
a							
Nitrate	mg/L	0.32	0.14	7.49	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	0.057	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	0.32	0.14	7.55	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	< 0.050	< 0.050	0.28	< 0.050	0.069	0.17
Total phosphorus	mg/L	< 0.020	< 0.020	< 0.020	< 0.020	0.030	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
WQTC05-General Organics							
Total oil and grease	mg/L	0.70	0.80	0.90	1.4	0.90	1.7
WQTC06-Total Metals							
Aluminum	mg/L	0.0352	0.0845	0.124	0.0824	0.142	0.0484
Antimony	mg/L	0.00063	< 0.00050	0.00096	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00119	0.00067	0.00095	0.00031	0.00040	0.00044
Barium	mg/L	0.0229	0.0238	0.0137	0.0081	0.0105	0.0160
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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	< 0.000010	< 0.000010	0.000012	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	55.9	53.4	25.9	17.4	12.4	21.7
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	0.00024	0.00033	0.00035	< 0.00020	0.00024	< 0.00020
Copper	mg/L	0.00232	0.00211	0.00263	0.00239	0.0110	0.00127
Iron	mg/L	0.082	0.196	0.194	0.147	0.223	0.142
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	0.0135	0.0057	0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	9.93	8.79	7.2	4.16	2.92	3.88
Manganese	mg/L	0.0115	0.0433	0.0043	0.0032	0.0043	0.0125
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	0.0020	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	0.0047	0.0028	0.0025	0.0015	0.0032	0.0010
Potassium	mg/L	5.36	5.06	4.66	2.31	2.19	2.57
Selenium	mg/L	< 0.00010	< 0.00010	0.00027	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.535	0.554	0.735	0.457	0.774	0.605
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	34.4	30.9	46.3	18.6	14.8	19.2
Strontium	mg/L	0.296	0.236	0.14	0.0619	0.0419	0.0872
Sulphur	mg/L	23.9	21.9	15.6	7.77	6.76	8.7
Thallium	mg/L	< 0.000010	< 0.000010	0.000010	< 0.000010	0.000013	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	0.0058	< 0.0050	0.0087	< 0.0050

Uranium	mg/L	0.00124	0.00084	0.00059	0.00013	0.00014	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0122	0.0086	< 0.0050	0.0590	0.219	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010

MEL-SR	Sample Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019
	Location	MEL-SR1	MEL-SR7	MEL-SR11	MEL-SR14
Parameters	Units				
WQTC01-Field Measured					
pH	pH units	7.86	7.26	7.79	8.1
Conductivity	uS/cm	1173	1161	394.8	535.3
Temperature	°C	7.01	7.82	14.58	6.73
Dissolved oxygen	mg/L	11.32	11.27	8.97	11.25
Dissolved oxygen	%	94.9	96.5	89.6	102
WQTC02-Conventional Parameters					
pH	pH units	8.06	7.73	7.98	7.97
Hardness, Total	mg/L	261	98.9	62.5	104
Total suspended solids	mg/L	1	5	1	1
Total Dissolved Solids	mg/L	545	225	145	230
Turbidity	NTU	0.3	0.8	0.8	1.0
WQTC03-Major Ions					
Alkalinity, Total as CaCO ₃	mg/L	110	59	66	77
Chloride	mg/L	130	60	23	38
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	0.13	< 0.10	0.14	< 0.10
Sulphate	mg/L	98	38	34	47
WQTC04-Nutrients and Chlorophyll a					
Nitrate	mg/L	0.49	< 0.10	1.14	0.34
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	0.49	< 0.10	1.14	0.34
Total ammonia	mg/L	< 0.050	< 0.050	< 0.050	0.12
Total phosphorus	mg/L	< 0.020	< 0.020	0.023	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
WQTC05-General Organics					
Total oil and grease	mg/L	< 0.50	< 0.50	< 0.50	< 0.50
WQTC06-Total Metals					
Aluminum	mg/L	0.0104	0.0418	0.214	0.0470
Antimony	mg/L	0.00095	< 0.00050	0.00113	< 0.00050
Arsenic	mg/L	0.00158	0.00105	0.00117	0.00055
Barium	mg/L	0.0319	0.0159	0.0118	0.0208
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010

Boron	mg/L	< 0.05	< 0.05	0.069	< 0.05
Cadmium	mg/L	0.000011	< 0.000010	0.000013	< 0.000010
Calcium	mg/L	79.3	31.4	17.5	31.2
Chromium	mg/L	< 0.0010	< 0.0010	0.0017	< 0.0010
Cobalt	mg/L	0.00024	0.00038	0.00042	< 0.00020
Copper	mg/L	0.00262	0.00236	0.00230	0.00923
Iron	mg/L	0.038	0.079	0.371	0.08
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	0.0228	< 0.0020	< 0.0020	0.0030
Magnesium	mg/L	15.3	5.01	4.59	6.43
Manganese	mg/L	0.0094	0.0155	0.0085	0.0018
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	0.0023	< 0.0010
Nickel	mg/L	0.0067	0.0024	0.0023	0.0034
Potassium	mg/L	7.29	2.77	4.31	4.01
Selenium	mg/L	0.00011	< 0.00010	0.00016	< 0.00010
Silicon	mg/L	0.418	0.469	0.802	1.11
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	48.2	22.6	28.7	30.7
Strontium	mg/L	0.424	0.105	0.0657	0.0975
Sulphur	mg/L	32	12.4	9.44	14.9
Thallium	mg/L	< 0.000010	< 0.000010	0.000017	0.000013
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	0.0087	< 0.0050
Uranium	mg/L	0.00233	0.00029	0.00062	0.00040
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0200	< 0.0050	< 0.0050	0.0617
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010

< Indicates parameter was below laboratory equipment detection limit.

> Indicates parameter detected above equipment analytical range.

- Chemical not analyzed or criteria not defined.

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, the landfill contained approximately 16 400 m³ of material.

In June 2019, approximately 1m³ of contaminated soil was transferred to the Type A Landfarm as a result of minor spills cleanup.

3.2 ORE

Approximately 79,370 tonnes of ore were processed through the Mill and 20,357 tonnes of ore was stockpiled in June.

3.3 WASTE ROCK STORAGE FACILITY

In June, a total of 36,646 tonnes of waste rock was removed in the mine development process. No material was used as underground dry rockfill. No waste was stockpiled for progressive closure cover.

3.4 TAILINGS

79,370 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in May 2019. 8,017 tonnes of tailings were used for paste underground backfill

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

All spills reported internally (3) are listed in the table 4.1 below 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.

No reportable spills occurred in June.

Table 4.1: Summary of Agnico's Spill Reports in June 2019

Date and time of occurrence	material	Estimated quantity (l)	location	Description of incident	Describe immediate corrective actions
6/13/2019 8:00	oil	0.50	Outside power plant at G2 crankcase vent, near radiator module	The electric motor on the generator 2 oil mist separator module failed, causing a small quantity of engine oil to drip from the crankcase vent pipe. Drops of oil were observed at around 7:00 am on rocks outside the power plant during morning inspection routine.	Initial inspection shown that the oil mist separator's electric motor wasn't working. Started another generator and stopped the faulty one. Further test will have to be conducted to prove the fault.
6/13/2019 15:30	hydraulic oil	1.00	On picket TIR-213, Hole #M19-2675	Possible leak coming from one of the hydraulic hoses on the drill. Small leak, hard to notice. Small amount of products on the ground and hard to sample to know what it is. Could be DD2000, fuel or hydraulic hose. Some small part of the soil on the ground is shining.	Installed matings on the ground, installed absorbents booms as well. Daily inspection are completed to monitor the spill and ensure it's controlled.

6/14/2019 21:00	hydraulic oil	15.00	From MSB Bay #4 to Portal 2	65SCI08 was inside the shop for preventive maintenance. The machine was full of mining gear so the operator was asked to come back and get it "un-geared". However, the machine had a hydraulic leak underneath when it left the shop. The parking brake hydraulic hose leaked from the shop to portal 2.	Alexandre Banville and Stephane B. Morin went for a drive to evaluate the leak. Pictures taken and we will speak with environment to determine what corrective actions need to be taken as the spill is on a hauling road and is not concentrated in a specific area. We will fix any hydraulic leaks before authorizing a machine to leave the shop in the future. Operator needs to perform walk around and pre-op (would have seen the leak).
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