



Meliadine Gold Project
NWB 2AM-MEL1631
October 2021 Monthly Report

Prepared for:

Nunavut Water Board

Prepared by:

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SECTION 1 • BACKGROUND

As required under Part I, Item 9 of amended 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 October 2021.

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 October 2021

	Monthly Usage (m ³)
Camp, Mill (MEL-11)	42,925
Dust suppression	0
Total October	42,925
Year to date 2021	380,599

2.2 DEWATERING ACTIVITIES

No dewatering activities took place in October 2021.

2.3 MELIADINE DISCHARGE

Discharge from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) started July 13th 2021 and ended October 16th 2021. A total of 99,079 m³ was discharged throughout October.

2.4 MELVIN BAY DISCHARGE

Discharge of treated saline effluent into Melvin Bay via the Final Discharge Point (MEL-26) started on August 12th 2021 and ended October 5th 2021. A total of 4,665 m³ was discharged throughout October.

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 October 2021.

2.6 SEWAGE TREATMENT PLANT

In October 2021, 4,996 m³ of treated wastewater was discharged into CP1. The majority of the sludge is disposed of in the WRSF.

2.7 CONTAINMENTS

Discharge from the Itivia fuel containment facility (Station Mel-25) occurred on October 22nd, 2021. Approximately 450 m³ was discharged.

2.8 MONITORING ANALYTICAL DATA

In October 2021, 29 samples related to the Water Licence were taken. See below the analytical results from these sampling events. No exceedance occurred in October 2021.

An elevated total suspended solids (TSS) concentration was measured in surface water runoff at sampling station MEL-SR7 after a heavy rainfall event that occurred on October 4th, 2021. MEL-SR7 is an internal sampling location that does not flow off-site, located on the north side of the sea-can lay down at Itivia. The surface runoff from Mel-SR7 passes through the Itivia site and sediment is managed by two check dams before flowing into MEL-SR1 and offsite. Samples were collected for laboratory analysis at both areas. Results were received on October 21st and a concentration of 250 mg/L TSS was measured at MEL-SR7 and 40 mg/L at MEL-SR1. Consequently, no impact on water bodies were made and this event is not considered as an exceedance.

This event was reported as due diligence. Agnico Eagle remains committed to ensuring any concerns are reported without delay through regulatory channels and to protect any receiving water body from being impacted.

MEL-11	Sample date	10/10/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.39
Turbidity	NTU	0.4
Specific conductivity	umhos/cm	110
Hardness, as CaCO ₃ (T)	mg/L	29.7
Carbonate, as CaCO ₃	mg/L	< 1.0
Bicarbonate, as CaCO ₃	mg/L	20
TDS, calculated	mg/L	54
TDS (SM2540C)	mg/L	20
TSS	mg/L	1
Total organic carbon	mg/L	3.3
Dissolved organic carbon	mg/L	3.2
Total alkalinity, as CaCO ₃	mg/L	20
WQ03- Major Ions		
Calcium	mg/L	8.70
Chloride	mg/L	16
Cyanide	mg/L	< 0.0050
Cyanide (free)	mg/L	0.014
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	1.72
Potassium	mg/L	1.05
Sodium	mg/L	7.36
Sulfate	mg/L	6.3
Silica	mg/L	0.26
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	< 0.050

Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Total Kjeldahl nitrogen	mg/L	0.22
Total phosphorus	mg/L	0.073
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0068
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00050
Barium	mg/L	0.0084
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00095
Iron	mg/L	0.039
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0096
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	0.0553
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
WQ07- Dissolved Metals		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00044
Barium	mg/L	0.0082
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00088
Iron	mg/L	0.0076
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
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0557
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
WQ10- 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

MEL-12	Sample date	10/7/2021	10/11/2021
Parameter	Unit		
WQ02- Conventional Parameters			
pH	pH units	7.63	7.58
Turbidity	NTU	1.1	1.1
Hardness, as CaCO ₃ (T)	mg/L	772	744
TDS, calculated	mg/L	1900	1900
TDS (SM2540C)	mg/L	2070	2040
TSS	mg/L	2	3
Total alkalinity, as CaCO ₃	mg/L	84	87
WQ03- Major Ions			
Calcium	mg/L	210	198
Chloride	mg/L	820	830
Cyanide	mg/L	< 0.0050	< 0.0050
Fluoride	mg/L	0.11	< 0.10

Magnesium	mg/L	59.2	57.1
Potassium	mg/L	27.1	25.2
Sodium	mg/L	367	354
Sulfate	mg/L	270	310
Silica	mg/L	0.59	0.76
WQ04- Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg-N/L	2.2	2.6
Nitrate	mg/L	24.9	25.7
Nitrite	mg/L	0.936	0.355
Total phosphorus	mg/L	0.20	0.065
Orthophosphate (P)	mg/L	0.023	0.052
WQ06- Total Metals			
Aluminum	mg/L	0.0985	0.0739
Arsenic	mg/L	0.0125	0.0129
Barium	mg/L	0.0838	0.0850
Cadmium	mg/L	0.000036	0.000035
Chromium	mg/L	< 0.0020	< 0.0010
Copper	mg/L	0.0025	0.00245
Iron	mg/L	0.196	0.178
Lead	mg/L	0.00099	0.00092
Manganese	mg/L	0.324	0.382
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	0.0048	0.0057
Nickel	mg/L	0.0092	0.0096
Selenium	mg/L	0.00102	0.00098
Silver	mg/L	< 0.000040	< 0.000020
Thallium	mg/L	0.000036	0.000041
Zinc	mg/L	< 0.010	0.0131

MEL-13	Sample date	10/6/2021	10/19/2021
Parameter	Unit		
WQ01- Field Measured			
Temperature	°C	4.87	2.1
pH	pH units	7.33	7.36
Conductivity	uS/cm	118.2	124.5
Dissolved oxygen	mg/L	NA	6.7
Dissolved oxygen	%	102.5	99.8
WQ02- Conventional Parameters			
pH	pH units	7.34	7.03
Dissolved Oxygen	mg/L	10.3	9.52
Turbidity	NTU	0.5	1.0
Specific conductivity	umhos/cm	120	120

Hardness, as CaCO ₃ (T)	mg/L	31.1	32.2
Carbonate, as CaCO ₃	mg/L	< 1.0	< 1.0
Bicarbonate, as CaCO ₃	mg/L	21	18
TDS, calculated	mg/L	59	58
TDS (SM2540C)	mg/L	40	65
TSS	mg/L	< 1	2
Total organic carbon	mg/L	3.5	3.8
Dissolved organic carbon	mg/L	3.1	3.5
Total alkalinity, as CaCO ₃	mg/L	21	18
WQ03- Major Ions			
Calcium (E200.8)	mg/L	9.18	9.51
Chloride (SM4500-Cl-)	mg/L	19	19
Cyanide	mg/L	< 0.0050	< 0.0050
Cyanide (free)	mg/L	0.0073	0.0044
Cyanide (WAD)	mg/L	< 0.0010	< 0.0010
Magnesium (E200.8)	mg/L	1.84	1.81
Potassium (E200.8)	mg/L	1.09	1.16
Sodium (E200.8)	mg/L	8.18	7.93
Sulfate (E375.4)	mg/L	6.7	8.2
Silica	mg/L	0.33	0.25
WQ04- Nutrients and Chlorophyll a			
Ammonia Nitrogen	mg/L	< 0.050	< 0.050
Nitrate	mg/L	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg/L	0.18	0.24
Total phosphorus	mg/L	< 0.020	< 0.020
Orthophosphate (P)	mg/L	< 0.010	< 0.010
WQ06- Total Metals			
Aluminum	mg/L	0.00425	0.00681
Antimony	mg/L	< 0.000020	< 0.000020
Arsenic	mg/L	0.000468	0.000387
Barium	mg/L	0.00976	0.00959
Beryllium	mg/L	< 0.000010	< 0.000010
Boron	mg/L	< 0.01	< 0.01
Cadmium	mg/L	< 0.0000050	< 0.0000050
Chromium	mg/L	< 0.00010	< 0.00010
Copper	mg/L	0.000890	0.000923
Iron	mg/L	0.0206	0.0264
Lead	mg/L	0.0000069	0.0000052
Lithium	mg/L	0.00128	0.00162
Manganese	mg/L	0.00453	0.00422
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	0.000280	0.000131

Nickel	mg/L	0.000690	0.000781
Selenium	mg/L	< 0.000040	< 0.000040
Silver	mg/L	< 0.0000050	< 0.0000050
Strontium	mg/L	0.0625	0.0653
Thallium	mg/L	< 0.0000020	0.0000025
Tin	mg/L	< 0.00020	< 0.00020
Titanium	mg/L	< 0.00050	< 0.00050
Uranium	mg/L	0.0000278	0.0000349
Vanadium	mg/L	< 0.00020	< 0.00020
Zinc	mg/L	0.00040	0.00058
WQ07- Dissolved Metals			
Aluminum	mg/L	0.00209	0.00264
Antimony	mg/L	< 0.000020	< 0.000020
Arsenic	mg/L	0.000445	0.000450
Barium	mg/L	0.00907	0.00947
Beryllium	mg/L	< 0.000010	< 0.000010
Boron	mg/L	< 0.01	< 0.01
Cadmium	mg/L	< 0.0000050	< 0.0000050
Chromium	mg/L	< 0.00010	0.00011
Copper	mg/L	0.000872	0.000843
Iron	mg/L	0.0059	0.0077
Lead	mg/L	< 0.0000050	< 0.0000050
Lithium	mg/L	0.00120	0.00123
Manganese	mg/L	0.000530	0.000516
Mercury	mg/L	< 0.00001	< 0.00001
Molybdenum	mg/L	0.000170	0.000123
Nickel	mg/L	0.000682	0.000738
Selenium	mg/L	< 0.000040	0.000041
Silver	mg/L	< 0.0000050	< 0.0000050
Strontium	mg/L	0.0621	0.0626
Thallium	mg/L	< 0.0000020	< 0.0000020
Tin	mg/L	< 0.00020	< 0.00020
Titanium	mg/L	< 0.00050	< 0.00050
Uranium	mg/L	0.0000280	0.0000327
Vanadium	mg/L	< 0.00020	< 0.00020
Zinc	mg/L	0.00032	0.00035
WQ08- Radionuclides			
Radium-226	Bq/l	< 0.0050	< 0.0050
WQ10- Volatile Organics			
Benzene	mg/L	< 0.00020	< 0.00020
Ethylbenzene	mg/L	< 0.00020	< 0.00020
Toluene	mg/L	< 0.00020	< 0.00020
Xylenes	mg/L	< 0.00040	< 0.00040

m,p-Xylenes	mg/L	< 0.00040	< 0.00040
o-Xylene	mg/L	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX	mg/L	< 0.025	< 0.025
F1 (C6-C10)	mg/L	< 0.025	< 0.025
F2 (C10-C16)	mg/L	< 0.1	< 0.1
F3 (C16-C34)	mg/L	< 0.2	< 0.2
F4 (C34-C50)	mg/L	< 0.2	< 0.2

MEL-14	2AM-MEL1631	2AM-MEL1631	MDMER	MDMER	Sample		10/3/2021	10/5/2021	10/11/2021
Parameter	MEL-14	MEL-14	MAX	MAX	date	Monthly			
	GRAB	GRAB	GRAB	MONTHLY	Unit	Average			
WQ02- Conventional Parameters									
pH	9.5	9.5	9.5	9.5	pH units	7.62	7.70	7.65	7.50
Dissolved Oxygen					mg/L	10.23	10.8	9.68	10.2
Turbidity					NTU	0.67	0.6	0.7	0.7
Specific conductivity					umhos/cm	3366.67	3600	3300	3200
Hardness, as CaCO3 (T)					mg/L	754.00	786	716	760
Carbonate, as CaCO3					mg/L	1.00	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3					mg/L	74.67	81	79	64
TDS, calculated	4500	3500			mg/L	1966.67	2000	2000	1900
TDS (SM2540C)	4500	3500			mg/L	2140.00	2260	2020	2140
TSS	30	15	30	15	mg/L	2.67	3	2	3
Total organic carbon					mg/L	9.73	11	10	8.2
Dissolved organic carbon					mg/L	8.93	9.6	9.3	7.9
Total alkalinity, as CaCO3					mg/L	75.00	81	80	64
WQ03- Major Ions									
Calcium					mg/L	202.67	201	209	198
Chloride					mg/L	866.67	920	840	840
Cyanide	1	0.5	1	0.5	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide (free)					mg/L	0.0040	0.0037	0.0034	0.0048
Cyanide (WAD)					mg/L	0.0015	0.0012	0.0017	0.0015
Magnesium					mg/L	58.70	60.5	58.9	56.7
Potassium					mg/L	26.67	27.6	26.8	25.6
Sodium					mg/L	359.00	362	361	354
Sulfate					mg/L	296.67	280	300	310
Silica					mg/L	0.43	0.23	0.37	0.70
WQ04- Nutrients and Chlorophyll a									
Ammonia Nitrogen	18	14			mg-N/L	2.20	2.0	1.9	2.7
Nitrate					mg/L	24.90	24.8	23.8	26.1
Nitrite					mg/L	0.421	0.442	0.469	0.352

Total Kjeldahl nitrogen					mg/L	2.07	2.1	1.6	2.5
Total phosphorus	4	2			mg/L	0.041	0.025	< 0.020	0.079
Orthophosphate (P)					mg/L	0.010	< 0.010	0.010	< 0.010
WQ06- Total Metals									
Aluminum	3	2			mg/L	0.38300	0.375	0.351	0.423
Antimony					mg/L	0.00094	0.00091	< 0.0010	0.00090
Arsenic	0.6	0.3	0.6	0.3	mg/L	0.00320	0.00366	0.00369	0.00226
Barium					mg/L	0.08377	0.0863	0.0796	0.0854
Beryllium					mg/L	0.00013	< 0.00010	< 0.00020	< 0.00010
Boron					mg/L	0.38733	0.379	0.38	0.403
Cadmium					mg/L	0.00003	0.000027	0.000033	0.000036
Chromium					mg/L	0.00133	< 0.0010	< 0.0020	< 0.0010
Cobalt					mg/L	0.00172	0.00169	0.00159	0.00187
Copper	0.4	0.2	0.6	0.3	mg/L	0.00187	0.00201	0.0020	0.00161
Iron					mg/L	0.02400	0.031	0.024	0.017
Lead	0.2	0.1	0.2	0.1	mg/L	0.00027	< 0.00020	< 0.00040	< 0.00020
Lithium					mg/L	0.04390	0.0398	0.0414	0.0505
Manganese					mg/L	0.31467	0.286	0.279	0.379
Mercury					mg/L	0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum					mg/L	0.00500	0.0053	0.0047	0.0050
Nickel	1	0.5	1	0.5	mg/L	0.00837	0.0083	0.0080	0.0088
Selenium					mg/L	0.00100	0.00107	0.00099	0.00094
Silver					mg/L	0.00003	< 0.000020	< 0.000040	< 0.000020
Strontium					mg/L	2.66	2.64	2.46	2.87
Thallium					mg/L	0.00004	0.000040	0.000036	0.000037
Tin					mg/L	0.00667	< 0.0050	< 0.010	< 0.0050
Titanium					mg/L	0.00667	< 0.0050	< 0.010	< 0.0050
Uranium					mg/L	0.00246	0.00333	0.00287	0.00118
Vanadium					mg/L	0.00667	< 0.0050	< 0.010	< 0.0050
Zinc	0.8	0.4	1	0.5	mg/L	0.00987	0.0107	< 0.010	0.0089
WQ07- Dissolved Metals									
Aluminum					mg/L	0.09580	0.126	0.113	0.0484
Antimony					mg/L	0.00097	0.00091	< 0.0010	< 0.0010

Arsenic					mg/L	0.00229	0.00257	0.00278	0.00152
Barium					mg/L	0.08227	0.0840	0.0844	0.0784
Beryllium					mg/L	0.00017	< 0.00010	< 0.00020	< 0.00020
Boron					mg/L	0.39133	0.414	0.39	0.37
Cadmium					mg/L	0.00003	0.000027	0.000034	0.000036
Chromium					mg/L	0.00167	< 0.0010	< 0.0020	< 0.0020
Copper					mg/L	0.00172	0.00190	0.00163	0.00162
Iron					mg/L	0.01900	0.0320	< 0.010	0.015
Lead					mg/L	0.00033	< 0.00020	< 0.00040	< 0.00040
Lithium					mg/L	0.04313	0.0423	0.0451	0.0420
Manganese					mg/L	0.30400	0.262	0.287	0.363
Mercury					mg/L	0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum					mg/L	0.00473	0.0048	0.0049	0.0045
Nickel					mg/L	0.00847	0.0080	0.0081	0.0093
Selenium					mg/L	0.00098	0.00100	0.00099	0.00096
Silver					mg/L	0.00003	< 0.000020	< 0.000040	< 0.000040
Strontium					mg/L	2.5	2.46	2.67	2.40
Thallium					mg/L	0.00004	0.000039	0.000038	0.000038
Tin					mg/L	0.00833	< 0.0050	< 0.010	< 0.010
Titanium					mg/L	0.00833	< 0.0050	< 0.010	< 0.010
Uranium					mg/L	0.00230	0.00307	0.00284	0.00099
Vanadium					mg/L	0.00833	< 0.0050	< 0.010	< 0.010
Zinc					mg/L	0.00867	< 0.0050	< 0.010	0.011
WQ08- Radionuclides									
Radium-226			1.11	0.37	Bq/l	0.013	0.020	< 0.0050	0.014
WQ09- Toxicity									
Daphnia 48 h static acute test - LC50					%	-	>100	-	-
Daphnia 48 h Static Acute Test - EC50					%	-	>100	-	-
LC50 (96h) - Rainbow Trout					%	-	>100	-	-
WQ10- Volatile Organics									
Benzene					mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020

Ethylbenzene					mg/L	<i>0.00020</i>	< 0.00020	< 0.00020	< 0.00020
Toluene					mg/L	<i>0.00020</i>	< 0.00020	< 0.00020	< 0.00020
Xylenes					mg/L	<i>0.00040</i>	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes					mg/L	<i>0.00040</i>	< 0.00040	< 0.00040	< 0.00040
o-Xylene					mg/L	<i>0.00020</i>	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX					mg/L	<i>0.025</i>	< 0.025	< 0.025	< 0.025
F1 (C6-C10)					mg/L	<i>0.025</i>	< 0.025	< 0.025	< 0.025
F2 (C10-C16)					mg/L	<i>0.10</i>	< 0.1	< 0.1	< 0.1
F3 (C16-C34)					mg/L	<i>0.20</i>	< 0.2	< 0.2	< 0.2
F4 (C34-C50)					mg/L	<i>0.20</i>	< 0.2	< 0.2	< 0.2

MEL-15	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.51
Turbidity	NTU	< 0.1
Specific conductivity	umhos/cm	130
Hardness, as CaCO ₃ (T)	mg/L	47.6
Carbonate, as CaCO ₃	mg/L	< 1.0
Bicarbonate, as CaCO ₃	mg/L	39
TDS, calculated	mg/L	65
TDS (SM2540C)	mg/L	40
TSS	mg/L	1
Total organic carbon	mg/L	5.0
Dissolved organic carbon	mg/L	4.9
Total alkalinity, as CaCO ₃	mg/L	40
WQ03- Major Ions		
Calcium	mg/L	16.6
Chloride	mg/L	10
Cyanide	mg/L	< 0.0050
Cyanide (free)	mg/L	0.0050
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	1.84
Potassium	mg/L	1.01
Sodium	mg/L	4.57
Sulfate	mg/L	7.2
Silica	mg/L	1.1
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	< 0.050
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Total Kjeldahl nitrogen	mg/L	0.33
Total phosphorus	mg/L	0.047
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0043
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00109
Barium	mg/L	0.0128
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00084

Iron	mg/L	0.043
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0037
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0013
Nickel	mg/L	0.0011
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0792
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
WQ07- Dissolved Metals		
Aluminum	mg/L	0.0035
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00110
Barium	mg/L	0.0133
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00085
Iron	mg/L	0.0261
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0011
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0011
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0815
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

MEL-16	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	8.10
Turbidity	NTU	0.5
Specific conductivity	umhos/cm	140
Hardness, as CaCO ₃ (T)	mg/L	48.2
Carbonate, as CaCO ₃	mg/L	< 1.0
Bicarbonate, as CaCO ₃	mg/L	39
TDS, calculated	mg/L	70
TDS (SM2540C)	mg/L	80
TSS	mg/L	1
Total organic carbon	mg/L	4.2
Dissolved organic carbon	mg/L	4.2
Total alkalinity, as CaCO ₃	mg/L	40
WQ03- Major Ions		
Calcium	mg/L	15.5
Chloride	mg/L	18
Cyanide	mg/L	< 0.0050
Cyanide (free)	mg/L	0.0053
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	2.10
Potassium	mg/L	1.16
Sodium	mg/L	4.10
Sulfate	mg/L	5.6
Silica	mg/L	0.41
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	< 0.050
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Total Kjeldahl nitrogen	mg/L	0.27
Total phosphorus	mg/L	< 0.020
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0093
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00293
Barium	mg/L	0.0229
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00116

Iron	mg/L	0.062
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0049
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	0.0831
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
WQ07- Dissolved Metals		
Aluminum	mg/L	0.0038
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00254
Barium	mg/L	0.0226
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00110
Iron	mg/L	0.0233
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0014
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	0.0786
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

MEL-17	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.74
Turbidity	NTU	0.9
Specific conductivity	umhos/cm	270
Hardness, as CaCO ₃ (T)	mg/L	101
Carbonate, as CaCO ₃	mg/L	< 1.0
Bicarbonate, as CaCO ₃	mg/L	52
TDS, calculated	mg/L	140
TDS (SM2540C)	mg/L	170
TSS	mg/L	2
Total organic carbon	mg/L	8.3
Dissolved organic carbon	mg/L	8.1
Total alkalinity, as CaCO ₃	mg/L	53
WQ03- Major Ions		
Calcium	mg/L	32.9
Chloride	mg/L	34
Cyanide	mg/L	< 0.0050
Cyanide (free)	mg/L	0.0046
Cyanide (WAD)	mg/L	< 0.0010
Magnesium	mg/L	4.12
Potassium	mg/L	1.89
Sodium	mg/L	9.84
Sulfate	mg/L	26
Silica	mg/L	3.6
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	< 0.050
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Total Kjeldahl nitrogen	mg/L	0.44
Total phosphorus	mg/L	< 0.020
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0089
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00091
Barium	mg/L	0.0302
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00134

Iron	mg/L	0.353
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0046
Manganese	mg/L	0.0397
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0020
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Strontium	mg/L	0.225
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
WQ07- Dissolved Metals		
Aluminum	mg/L	0.0050
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00087
Barium	mg/L	0.0291
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00120
Iron	mg/L	0.249
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0045
Manganese	mg/L	0.0365
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0019
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Strontium	mg/L	0.224
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

MEL-18	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.66
Turbidity	NTU	0.8
Specific conductivity	umhos/cm	190
Hardness, as CaCO ₃ (T)	mg/L	72.9
Carbonate, as CaCO ₃	mg/L	< 1.0
Bicarbonate, as CaCO ₃	mg/L	41
TDS, calculated	mg/L	95
TDS (SM2540C)	mg/L	120
TSS	mg/L	3
Total organic carbon	mg/L	5.0
Dissolved organic carbon	mg/L	4.9
Total alkalinity, as CaCO ₃	mg/L	42
WQ03- Major Ions		
Calcium	mg/L	23.1
Chloride	mg/L	25
Cyanide	mg/L	< 0.0050
Cyanide (free)	mg/L	0.0025
Cyanide (WAD)	mg/L	0.0010
Magnesium	mg/L	2.97
Potassium	mg/L	1.35
Sodium	mg/L	5.58
Sulfate	mg/L	12
Silica	mg/L	0.94
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	< 0.050
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Total Kjeldahl nitrogen	mg/L	0.23
Total phosphorus	mg/L	< 0.020
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0070
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00193
Barium	mg/L	0.0193
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00103

Iron	mg/L	0.080
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0113
Manganese	mg/L	0.0063
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	0.197
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
WQ07- Dissolved Metals		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00142
Barium	mg/L	0.0181
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00094
Iron	mg/L	0.0241
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0104
Manganese	mg/L	0.0020
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	0.184
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

MEL-20	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.74
Turbidity	NTU	2.1
Hardness, as CaCO ₃ (T)	mg/L	283
TDS, calculated	mg/L	690
TDS (SM2540C)	mg/L	690
TSS	mg/L	6
Total alkalinity, as CaCO ₃	mg/L	79
WQ03- Major Ions		
Calcium	mg/L	86.3
Chloride	mg/L	230
Cyanide	mg/L	0.0086
Fluoride	mg/L	< 0.10
Magnesium	mg/L	19.3
Potassium	mg/L	8.79
Sodium	mg/L	116
Sulfate	mg/L	150
Silica	mg/L	2.5
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	2.8
Nitrate	mg/L	5.71
Nitrite	mg/L	0.092
Total phosphorus	mg/L	< 0.020
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0839
Arsenic	mg/L	0.0350
Barium	mg/L	0.0535
Cadmium	mg/L	0.000038
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00346
Iron	mg/L	0.259
Lead	mg/L	0.00127
Manganese	mg/L	0.185
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0019
Nickel	mg/L	0.0120
Selenium	mg/L	0.00133
Silver	mg/L	< 0.000020
Thallium	mg/L	0.000015
Zinc	mg/L	< 0.0050

MEL-21	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.83
Turbidity	NTU	11
Hardness, as CaCO ₃ (T)	mg/L	612
TDS, calculated	mg/L	1400
TDS (SM2540C)	mg/L	1470
TSS	mg/L	24
Total alkalinity, as CaCO ₃	mg/L	92
WQ03- Major Ions		
Calcium	mg/L	169
Chloride	mg/L	540
Cyanide	mg/L	0.0092
Fluoride	mg/L	0.13
Magnesium	mg/L	49.4
Potassium	mg/L	16.5
Sodium	mg/L	253
Sulfate	mg/L	310
Silica	mg/L	4.0
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	1.2
Nitrate	mg/L	7.78
Nitrite	mg/L	0.050
Total phosphorus	mg/L	< 0.020
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.305
Arsenic	mg/L	0.0172
Barium	mg/L	0.0772
Cadmium	mg/L	0.000056
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00381
Iron	mg/L	0.609
Lead	mg/L	0.00242
Manganese	mg/L	0.231
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0054
Nickel	mg/L	0.0208
Selenium	mg/L	0.00046
Silver	mg/L	< 0.000020
Thallium	mg/L	0.000020
Zinc	mg/L	< 0.0050

MEL-22	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	8.02
Turbidity	NTU	9.3
Hardness, as CaCO ₃ (T)	mg/L	942
TDS, calculated	mg/L	2100
TDS (SM2540C)	mg/L	2200
TSS	mg/L	15
Total alkalinity, as CaCO ₃	mg/L	98
WQ03- Major Ions		
Calcium	mg/L	257
Chloride	mg/L	980
Cyanide	mg/L	< 0.0050
Fluoride	mg/L	< 0.10
Magnesium	mg/L	61.0
Potassium	mg/L	28.9
Sodium	mg/L	371
Sulfate	mg/L	310
Silica	mg/L	2.5
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	2.6
Nitrate	mg/L	11.5
Nitrite	mg/L	0.086
Total phosphorus	mg/L	< 0.020
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.0805
Arsenic	mg/L	0.00545
Barium	mg/L	0.0817
Cadmium	mg/L	0.000054
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00249
Iron	mg/L	0.323
Lead	mg/L	0.00032
Manganese	mg/L	0.231
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0039
Nickel	mg/L	0.0126
Selenium	mg/L	0.00049
Silver	mg/L	< 0.000020
Thallium	mg/L	0.000043
Zinc	mg/L	0.0055

MEL-23	Sample date	10/9/2021
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.92
Turbidity	NTU	15
Hardness, as CaCO ₃ (T)	mg/L	916
TDS, calculated	mg/L	2800
TDS (SM2540C)	mg/L	2880
TSS	mg/L	21
Total alkalinity, as CaCO ₃	mg/L	140
WQ03- Major Ions		
Calcium	mg/L	190
Chloride	mg/L	1000
Cyanide	mg/L	0.032
Fluoride	mg/L	0.25
Magnesium	mg/L	98.2
Potassium	mg/L	55.3
Sodium	mg/L	556
Sulfate	mg/L	700
Silica	mg/L	5.4
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen	mg-N/L	15
Nitrate	mg/L	32.4
Nitrite	mg/L	0.282
Total phosphorus	mg/L	0.030
Orthophosphate (P)	mg/L	< 0.010
WQ06- Total Metals		
Aluminum	mg/L	0.287
Arsenic	mg/L	0.0108
Barium	mg/L	0.0537
Cadmium	mg/L	0.000115
Chromium	mg/L	< 0.0020
Copper	mg/L	0.0056
Iron	mg/L	0.518
Lead	mg/L	0.00089
Manganese	mg/L	0.480
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	0.0131
Nickel	mg/L	0.0865
Selenium	mg/L	0.00210
Silver	mg/L	< 0.000040
Thallium	mg/L	0.000049
Zinc	mg/L	< 0.010

MEL-26	MDMER MAX GRAB	MDMER MAX MONTHLY MEAN	Sample date	Monthly Average	10/3/2021	10/4/2021
Parameter			Unit			
WQ02- Conventional Parameters						
pH	9.5	9.5	pH units	7.16	7.14	7.17
Dissolved Oxygen			mg/L	10.90	11.3	10.5
Turbidity			NTU	0.80	0.7	0.9
Specific conductivity			umhos/cm	21000.00	21000	21000
Hardness, as CaCO3 (T)			mg/L	3095.00	3210	2980
Carbonate, as CaCO3			mg/L	1.00	< 1.0	< 1.0
Bicarbonate, as CaCO3			mg/L	35.00	35	35
TDS (calculated from EC)			mg/L	21500.00	22000	21000
TDS (SM2540C)			mg/L	14000.00	14600	13400
TSS	30	15	mg/L	-	3.10	-
Total organic carbon			mg/L	8.25	8.3	8.2
Dissolved organic carbon			mg/L	7.90	7.8	8.0
Total alkalinity, as CaCO3			mg/L	35.00	35	35
WQ03- Major Ions						
Calcium			mg/L	588.00	628	548
Chloride			mg/L	6600.00	6900	6300
Cyanide	1	0.5	mg/L	0.07	0.065	0.066
Cyanide (free)			mg/L	0.03	0.027	0.023
Cyanide (WAD)			mg/L	0.02	0.021	0.022
Magnesium			mg/L	381.00	390	372
Potassium			mg/L	138.00	140	136
Sodium			mg/L	3205.00	3330	3080
Sulfate			mg/L	835.00	850	820
Silica			mg/L	2.40	2.5	2.3
WQ04- Nutrients and Chlorophyll a						
Ammonia Nitrogen			mg-N/L	30.00	31	29

Nitrate			mg/L	43.30	43.9	42.7
Nitrite			mg/L	0.94	0.938	0.936
Total Kjeldahl nitrogen			mg/L	32.50	32	33
Total phosphorus			mg/L	0.05	0.054	0.051
Orthophosphate (P)			mg/L	0.01	< 0.010	< 0.010
WQ06- Total Metals						
Aluminum			mg/L	0.40900	0.424	0.394
Antimony			mg/L	0.00500	< 0.0050	< 0.0050
Arsenic	0.6	0.3	mg/L	0.00555	0.0056	0.0055
Barium			mg/L	0.10550	0.109	0.102
Beryllium			mg/L	0.00100	< 0.0010	< 0.0010
Boron			mg/L	0.86500	0.91	0.82
Cadmium			mg/L	0.00010	< 0.00010	< 0.00010
Chromium			mg/L	0.01000	< 0.010	< 0.010
Cobalt			mg/L	0.00410	0.0041	0.0041
Copper	0.6	0.3	mg/L	0.00500	< 0.0050	< 0.0050
Iron			mg/L	0.10000	< 0.10	< 0.10
Lead	0.2	0.1	mg/L	0.00200	< 0.0020	< 0.0020
Lithium			mg/L	0.17650	0.181	0.172
Manganese			mg/L	0.17300	0.177	0.169
Mercury			mg/L	0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.02300	0.023	0.023
Nickel	1	0.5	mg/L	0.03300	0.032	0.034
Selenium			mg/L	0.00170	0.0016	0.0018
Silver			mg/L	0.00020	< 0.00020	< 0.00020
Strontium			mg/L	12.6	13.0	12.2
Thallium			mg/L	0.00010	< 0.00010	< 0.00010
Tin			mg/L	0.05000	< 0.050	< 0.050
Titanium			mg/L	0.05000	< 0.050	< 0.050
Uranium			mg/L	0.00530	0.0053	0.0053
Vanadium			mg/L	0.05000	< 0.050	< 0.050

Zinc	1	0.5	mg/L	0.03750	< 0.050	< 0.025
WQ07- Dissolved Metals						
Aluminum			mg/L	0.08550	0.081	0.090
Antimony			mg/L	0.00500	< 0.0050	< 0.0050
Arsenic			mg/L	0.00340	0.0032	0.0036
Barium			mg/L	0.10550	0.110	0.101
Beryllium			mg/L	0.00100	< 0.0010	< 0.0010
Boron			mg/L	0.80000	0.76	0.84
Cadmium			mg/L	0.00010	< 0.00010	< 0.00010
Chromium			mg/L	0.01000	< 0.010	< 0.010
Copper			mg/L	0.00295	0.0028	0.0031
Iron			mg/L	0.05000	< 0.050	< 0.050
Lead			mg/L	0.00200	< 0.0020	< 0.0020
Lithium			mg/L	0.17300	0.176	0.170
Manganese			mg/L	0.16600	0.173	0.159
Mercury			mg/L	0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.01900	0.017	0.021
Nickel			mg/L	0.03150	0.031	0.032
Selenium			mg/L	0.00155	0.0016	0.0015
Silver			mg/L	0.00020	< 0.00020	< 0.00020
Strontium			mg/L	12.75	14.0	11.5
Thallium			mg/L	0.00010	< 0.00010	< 0.00010
Tin			mg/L	0.05000	< 0.050	< 0.050
Titanium			mg/L	0.05000	< 0.050	< 0.050
Uranium			mg/L	0.00480	0.0047	0.0049
Vanadium			mg/L	0.05000	< 0.050	< 0.050
Zinc			mg/L	0.05000	< 0.050	< 0.050
WQ08- Radionuclides						
Radium-226	1.11	0.37	Bq/l	0.12	0.11	0.12
WQ09- Toxicity						
LC50 (96h) - Threespine Stickleback			%	-	-	>100

MEL-SR1	MEL-SR MAX GRAB (WSEEP/RO)	MEL-SR MAX MEAN (WSEEP/RO)	Sample date	Monthly Average	10/4/2021	10/5/2021	10/11/2021	10/12/2021	10/17/2021
Parameter			Unit						
Turbidity			NTU	17.28	66.6	14.0	7.61	10.2	9.5
pH	9.5	9.5	pH units	8.09	8.06	8.02	8.10	8.19	8.15
Turbidity			NTU	8.00	24	11	2.8	8.3	7.1
Hardness, as CaCO ₃ (T)			mg/L	327.75	285	325	362	277	313
TDS, calculated			mg/L	547.50	450	530	600	460	540
TDS (SM2540C)			mg/L	568.75	510	605	590	450	525
TSS	100	50	mg/L	11.75	40	16	7	7	7
Total alkalinity, as CaCO ₃			mg/L	175.00	140	180	200	150	180
Calcium			mg/L	100.48	81.4	101	110	90.3	97.1
Chloride			mg/L	121.63	110	120	130	93	120
Cyanide			mg/L	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L	0.13	0.11	0.15	0.14	0.12	0.14
Magnesium			mg/L	17.63	14.1	16.5	19.0	15.1	17.1
Potassium			mg/L	9.56	8.13	9.90	10.1	8.27	9.14
Sodium			mg/L	57.23	50.5	53.0	61.8	48.1	56.6
Sulfate			mg/L	132.50	100	120	150	110	130
Silica			mg/L	3.51	2.5	3.1	3.0	2.9	3.6
Ammonia Nitrogen			mg-N/L	0.057	0.085	< 0.050	< 0.050	0.069	< 0.050
Nitrate			mg/L	0.320	0.23	0.23	0.33	0.22	0.32
Nitrite			mg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total phosphorus			mg/L	0.025	0.025	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate (P)			mg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total oil and grease			mg/L	0.625	< 0.50	1.0	< 0.50	< 0.50	< 0.50
Aluminum			mg/L	0.3975	1.67	0.268	0.201	0.227	0.149
Arsenic			mg/L	0.0026	0.00370	0.00234	0.00235	0.00224	0.00221
Barium			mg/L	0.0449	0.0482	0.0469	0.0506	0.0372	0.0434

Cadmium			mg/L	0.0000	0.000016	0.000020	0.000016	< 0.000010	< 0.000010
Chromium			mg/L	0.0030	0.0111	0.0018	0.0014	0.0016	< 0.0010
Copper			mg/L	0.0039	0.00698	0.00378	0.00362	0.00333	0.00316
Iron			mg/L	0.6638	2.69	0.483	0.363	0.423	0.251
Lead			mg/L	0.0003	0.00102	0.00021	< 0.00020	0.00021	< 0.00020
Manganese			mg/L	0.0240	0.0517	0.0431	0.0242	0.0173	0.0136
Mercury			mg/L	0.0000	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.0014	0.0011	0.0015	0.0015	0.0013	0.0014
Nickel			mg/L	0.0096	0.0106	0.0086	0.0096	0.0072	0.0067
Selenium			mg/L	0.0001	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver			mg/L	0.0000	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium			mg/L	0.0000	0.000027	0.000012	< 0.000010	0.000012	< 0.000010
Zinc			mg/L	0.0192	0.0185	0.0290	0.0278	0.0083	0.0106

MEL-SR7	MEL-SR MAX GRAB (WSEEP/RO)	MEL-SR MAX MEAN (WSEEP/RO)	Sample date	Monthly Average	10/4/2021	10/5/2021	10/12/2021	10/17/2021
Parameter			Unit					
WQ01- Field Measured								
Turbidity			NTU	164.48	620	4.61	13.2	20.1
WQ02- Conventional Parameters								
pH	9.5	9.5	pH units	8.02	7.82	8.08	8.16	8.03
Turbidity			NTU	56.53	190	3.1	12	21
Hardness, as CaCO3 (T)			mg/L	271.00	203	290	268	323
TDS, calculated			mg/L	455.00	260	510	460	590
TDS (SM2540C)			mg/L	485.00	315	560	455	610
TSS	100	50	mg/L	69.75	250	4	9	16
Total alkalinity, as CaCO3			mg/L	133.50	74	160	140	160
WQ03- Major Ions								
Calcium			mg/L	78.78	45.0	88.9	83.9	97.3
Chloride			mg/L	116.25	75	130	110	150
Cyanide			mg/L	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L	0.11	< 0.10	0.11	0.10	0.12
Magnesium			mg/L	14.95	9.01	16.3	15.0	19.5
Potassium			mg/L	7.82	5.51	8.42	7.88	9.46
Sodium			mg/L	56.15	34.4	60.1	56.2	73.9
Sulfate			mg/L	100.00	50	110	100	140
Silica			mg/L	2.98	1.8	3.4	3.1	3.6
WQ04- Nutrients and Chlorophyll a								
Ammonia Nitrogen			mg-N/L	0.073	0.13	0.061	< 0.050	< 0.050
Nitrate			mg/L	0.248	0.12	0.27	0.20	0.40
Nitrite			mg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total phosphorus			mg/L	0.075	0.24	< 0.020	< 0.020	< 0.020
Orthophosphate (P)			mg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010
WQ05- General Organics								

Total oil and grease			mg/L	0.60	< 0.50	0.90	< 0.50	< 0.50
WQ06- Total Metals								
Aluminum			mg/L	3.94938	14.9	0.0695	0.313	0.515
Arsenic			mg/L	0.00713	0.00975	0.00688	0.00512	0.00678
Barium			mg/L	0.04485	0.0657	0.0369	0.0347	0.0421
Cadmium			mg/L	0.00004	0.000104	0.000019	0.000016	0.000023
Chromium			mg/L	0.03940	0.149	< 0.0010	0.0031	0.0045
Copper			mg/L	0.01411	0.0397	0.00574	0.00523	0.00575
Iron			mg/L	6.33	23.8	0.139	0.545	0.827
Lead			mg/L	0.00155	0.00556	< 0.00020	< 0.00020	0.00022
Manganese			mg/L	0.10625	0.371	0.0097	0.0167	0.0276
Mercury			mg/L	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.00103	< 0.0010	< 0.0010	< 0.0010	0.0011
Nickel			mg/L	0.02125	0.0542	0.0105	0.0091	0.0112
Selenium			mg/L	0.00011	0.00013	< 0.00010	< 0.00010	0.00011
Silver			mg/L	0.00002	0.000027	< 0.000020	< 0.000020	< 0.000020
Thallium			mg/L	0.00003	0.000098	< 0.000010	0.000011	0.000013
Zinc			mg/L	0.04580	0.165	< 0.0050	0.0055	0.0077

MEL-SR13	MEL-SR MAX GRAB (WSEEP/RO)	MEL-SR MAX MEAN (WSEEP/RO)	Sample date	10/4/2021
Parameter			Unit	
WQ01- Field Measured				
Turbidity			NTU	1.86
WQ02- Conventional Parameters				
pH	9.5	9.5	pH units	8.15
Turbidity			NTU	0.7
Hardness, as CaCO ₃ (T)			mg/L	297
TDS, calculated			mg/L	550
TDS (SM2540C)			mg/L	595
TSS	100	50	mg/L	< 1
Total alkalinity, as CaCO ₃			mg/L	160
WQ03- Major Ions				
Calcium			mg/L	84.4
Chloride			mg/L	130
Cyanide			mg/L	< 0.0050
Fluoride			mg/L	0.13
Magnesium			mg/L	21.7
Potassium			mg/L	9.32
Sodium			mg/L	79.1
Sulfate			mg/L	130
Silica			mg/L	3.9
WQ04- Nutrients and Chlorophyll a				
Ammonia Nitrogen			mg-N/L	< 0.050
Nitrate			mg/L	< 0.10
Nitrite			mg/L	< 0.010
Total phosphorus			mg/L	0.025
Orthophosphate (P)			mg/L	< 0.010
WQ05- General Organics				
Total oil and grease			mg/L	< 0.50
WQ06- Total Metals				
Aluminum			mg/L	0.0221
Arsenic			mg/L	0.00052
Barium			mg/L	0.0278
Cadmium			mg/L	< 0.000010
Chromium			mg/L	< 0.0010
Copper			mg/L	0.00378
Iron			mg/L	0.043
Lead			mg/L	< 0.00020
Manganese			mg/L	0.0021
Mercury			mg/L	< 0.00001
Molybdenum			mg/L	< 0.0010

Nickel			mg/L	0.0026
Selenium			mg/L	< 0.00010
Silver			mg/L	< 0.000020
Thallium			mg/L	< 0.000010
Zinc			mg/L	0.0526

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 August 10th, 2021 the landfill contained approximately 13,587.7 m³ of material.

In October 2021, approximately 6.5 m³ of contaminated soil was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 167,801 tonnes of ore were processed through the Mill in October 2021.

3.3 WASTE ROCK STORAGE FACILITY

In October 2021, a total of 49,365 tonnes of waste rock was removed in the mine development process. 28,810 tonnes were used as underground dry rockfill.

3.4 TAILINGS

128,498 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in October 2021. 39,303 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

Spills reported internally (12) 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. Two reportable spills occurred in October 2021.

Table 4.1: Summary of Agnico's Spill Reports in October 2021

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
Monday, October 04, 2021 9:30:00 AM	Engine Oil (0W/40)	4.00	Drill Sh-85 M21-3316	The o-ring on a hydraulic fitting on the control bank cracked, causing a leak when a clamp was used.	The drill was stopped. Absorbent pads were used and disposed of as hazmat.
Monday, October 04, 2021 11:00:00 AM	Grease	150.00	North Side of Process Plant	An employee walking to the process plant observed a barrel that had tipped over with industrial grease from the process plant and maintenance shop flowing out of the barrel, roughly 150L of grease was spilled.	The employee that discovered the drum immediately placed the drum upright and deployed spill rags, which were disposed of as hazmat. The contaminated material was scraped up and brought to Landfarm A.
Monday, October 04, 2021 1:30:00 PM	Engine Oil (0W/40)	4.00	Drill #10 (Easting-540099/Northing 6986582)	A foot clamp became loose and led to hoses pinching and rupturing.	The drill was stopped. Absorbent pads were used and disposed of as hazmat.
Friday, October 08, 2021 1:30:00 PM	Transmission Oil	20.00	OP1	A line failed on the transmission of a fuel truck.	The equipment was stopped, absorbent pads were used and disposed of as hazmat.
Saturday, October 09, 2021 11:30:00 AM	Hydraulic Oil	60.00	Automation pad beside Portal 2	A hydraulic hose failed on a haul truck.	Absorbent pads were used and disposed of according to procedure.
Wednesday, October 13, 2021 2:00:00 PM	Hydraulic Oil	65.00	West exhaust access road	Hydraulic oil leaked from the hydraulic pump compartment of an excavator due to equipment malfunction.	The equipment was stopped. A maintenance lube truck was used to empty the content of the hydraulic tank, to prevent further leakage to the ground. Absorbent pads were used and disposed of as hazmat. Contaminated material was removed and

					brought to Landfarm A.
Thursday, October 14, 2021 5:00:00 AM	Hydraulic Oil	200.00	OP2	A hydraulic hose failed during operation of a scoop releasing 200L of hydraulic oil near the high-grade ore pad at portal 2.	Absorbent pads were used and disposed of as hazmat. Contaminated material was recovered and brought to Landfarm A.
Friday, October 22, 2021 3:00:00 AM	Fuel	60.00	KCG Shop Yard	A worker noticed a fuel spill under the pressure washer trailer of a generator.	The generator was stopped, and the trailer was moved to be able to scrape the contaminated material, which was brought to Landfarm A.
Monday, October 25, 2021 10:00:00 AM	Diesel Fuel	6.00	Behind the Warehouse	Fuel was leaking from underneath a Manitou during warm-up of the equipment prior to use.	The equipment was stopped, absorbent pads were used and disposed of as hazmat. The remaining contaminated material was scraped up and brought to Landfarm A.
Monday, October 25, 2021 4:00:00 PM	Diesel Fuel	30.00	3M Fuel Farm	While refueling an underground fuel truck at the 3M fuel farm, the operator over-filled the tank and fuel came out the tank breather tube.	Spill pads were deployed to collect the free diesel and disposed of as hazmat.
Sunday, October 31, 2021 1:00:00 PM	Engine Oil	2.00	North of Wing 9	An engine oil leak developed on a light tower and slowly released approximately 2 L of engine oil.	The contaminated soil was recovered and placed in a 45-gallon drum at the hazmat laydown.
Sunday, October 31, 2021 3:00:00 PM	Diesel Fuel	25.00	Water Management Shop	The fuel tank of a compressor was punctured and leaked.	The leak was controlled by putting the equipment in a containment. The contaminated material was recovered and disposed of into Landfarm A.