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

Prepared for:
Nunavut Water Board

Prepared by:
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July 2021

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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 March 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 March 2021

	Monthly Usage (m^3)
Camp and Mill (MEL-11)	39,095
Dust suppression	0
Total March	**39,095**
Year to date 2021	**107,602**

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 and stopped October 4th, 2020. A total of 13,836 m^3 was discharged throughout October 2020.

2.4 MELVIN BAY DISCHARGE

Discharge to sea via the Final Discharge Point (MEL-26) started August 10th 2020 and stopped October 8th, 2020. A total of approximately 5,275 m^3 was discharged throughout October 2020.

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 March 2021.

2.6 SEWAGE TREATMENT PLANT

In March 2021, 5,105 m^3 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 2020. Approximately 3,780 m^3 was discharged through the discharge period.

2.8 MONITORING ANALYTICAL DATA

In March 2021, a sample related to the Water Licence was taken. See below the analytical results from this sampling event, at station MEL-11. No exceedance occurred in March 2021.

MEL-11	**Sample date**	3/8/2021
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.40
Turbidity	**NTU**	0.2
Specific conductivity	**umhos/cm**	140
Total alkalinity, as CaCO3	**mg/L**	26
Hardness, as CaCO3 (T)	**mg/L**	36.8
Hardness, as CaCO3 (D)	**mg/L**	36.8
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	26
TDS	**mg/L**	50
TSS	**mg/L**	< 1
Total organic carbon	**mg/L**	3.9
Dissolved organic carbon	**mg/L**	3.8
WQ03- Major Ions		
Calcium	**mg/L**	11.2
Chloride	**mg/L**	21
Cyanide	**mg/L**	< 0.0050
Cyanide (free)	**mg/L**	< 0.0010
Cyanide (WAD)	**mg/L**	< 0.0010
Magnesium	**mg/L**	2.13
Potassium	**mg/L**	1.42
Sodium	**mg/L**	9.11
Sulfate	**mg/L**	7.7
Silica	**mg/L**	0.43
WQ04- Nutrients and Chlorophyll a		
Total ammonia	**mg/L**	0.066
Nitrate	**mg/L**	< 0.10
Nitrite	**mg/L**	< 0.010
Nitrate + nitrite	**mg/L**	< 0.10
Total Kjeldahl nitrogen	**mg/L**	0.21
Total phosphorus	**mg/L**	< 0.020
Orthophosphate	**mg/L**	< 0.010
WQ06- Total Metals		

Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00046
Barium	**mg/L**	0.0124
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00106
Iron	**mg/L**	0.015
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0043
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**	0.0738
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**	0.00047
Barium	**mg/L**	0.0127
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00101
Iron	**mg/L**	0.0068
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**	0.0778
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

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 February 26th, 2021 the landfill contained approximately 20,544 m^3 of material.

In March 2021, no contaminated soil was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 136,636 tonnes of ore were processed through the Mill in March 2021.

3.3 WASTE ROCK STORAGE FACILITY

In March 2021, a total of 60,555 tonnes of waste rock was removed in the mine development process. 26,646 tonnes were used as underground dry rockfill.

3.4 TAILINGS

94,033 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in March 2021. 42,603 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

Spills reported internally (17) 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 March 2021.

Table 4.1: Summary of Agnico's Spill Reports in March 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, March 01, 2021 9:00:00 PM	Hydraulic Oil	8.00	MSB Parling Lot	A hydraulic hose failed on a tractor when the parking break was released.	Spill pads were used and disposed of according to procedure.
Thursday, March 11, 2021 2:30:00 AM	Sewage	5.00	Main Lift Station	Lift station pump did not activate due to high level switch malfunction (which got stuck in grease). The majority of the spill was contained inside the building, but some sewage spilled outside.	The Main Lift station was cleaned and grease was removed from the float switches to prevent them from sticking.
Friday, March 12, 2021 5:00:00 PM	Compressor Oil	40.00	KCG Shop Yard	The compressor oil hose failed on a drill.	The spill was cleaned using spill pads which were disposed of according to procedure.
Saturday, March 13, 2021 7:30:00 PM	Hydraulic Oil	25.00	In front of KCG Lunchroom	The sight glass of the hydraulic tank on a haul truck was cleaned with the wrong tool, resulting in a breakage that led to a spill.	The engine was stopped, and the spill contained. Spill pads were used and disposed of in a Quatrex bag. Oil was disposed of in a used oil tote. The contaminated snow was removed and put into the snow cell.
Monday, March 15, 2021 1:00:00 AM	Grey water		Under Exploration Camp Kitchen	Foxes damaged the insulation on the plumbing under the kitchen resulting in the grey water freezing and plumbing cracking in multiple locations.	The plumbing and insulation were repaired.
Thursday, March 18, 2021 1:00:00 AM	Coolant Fluid	10.00	WRSF3	A leak occured on the coolant line of a parked haul truck (which was not in use since broken).	The contaminated snow was removed and put into the snow cell. A drip pan and spill pads were placed under the leak to catch any new dripping. The spill pads were disposed of into a Quatrex bag.

Friday, March 19, 2021 11:00:00 PM	Rock Drill Oil	25.00	KCG Heated Seacan	A bucket of rock drill oil fell and spilled on the ground.	Contaminated snow was removed and placed into the snow cell. Spill pads were used and disposed of into a Quatrex bag.
Sunday, March 21, 2021 12:30:00 AM	Diesel Fuel	10.00	6 Million Fueling Area	Diesel fuel was spilled while fueling an equipment (scoop).	The contaminated snow was removed and spill pads were used for the cleanup. Contaminated material was disposed of as hazmat.
Tuesday, March 23, 2021 7:00:00 PM	Hydraulic Oil	10.00	WRSF1	The hydraulic pan of a bus was punctured by a rock while driving and hydraulic oil leaked on the ground.	Drip pan was placed underneath the leaking oil pan. Oil in drip pan was disposed of in a used oil tote, and contaminated snow was brought to the snow cell.
Wednesday, March 24, 2021 5:00:00 AM	Hydraulic Oil	20.00	Itivia	A hydraulic oil tank of an equipment was overfilled.	Spill pads were used to clean up the spill and disposed of into a Quatrex bag.
Friday, March 26, 2021 11:30:00 PM	Hydraulic Oil	12.00	WRSF1	Hydraulic oil pan plug of a haul truck was loose.	Contaminated snow was removed and placed into the snow cell.
Sunday, March 28, 2021 11:00:00 AM	Hydraulic Oil	20.00	Construction Pad	A hydraulic hose failed while the operator was installing the forks on a loader.	The equipment was stopped and the contaminated snow was put into the snow cell.
Monday, March 29, 2021 6:30:00 AM	Power Steering Fluid	2.00	E&I Equipment Laydown	The power steering line failed on the fuel truck.	The line was repaired and contaminated snow was put into the snow cell.
Monday, March 29, 2021 11:30:00 AM	Engine Oil	2.00	Portal 1 Area	An oil hose on the injection system of an equipment got loose and leaked on the ground.	The equipment was stopped and the contaminated snow/ice (25L) was brought to Landfarm A.
Monday, March 29, 2021 1:00:00 PM	Hydraulic Oil	3.00	Lake A8 Drill SH-58 #7 (M21-3254)	During environmental inspection, the drill rig was found to have areas with small amounts of hydraulic oil dripping from inside the rig onto the lake ice.	Spill pads were placed beneath the drips and the drill was shut down to address the issue. The leaking hose fittings were repaired and the contaminated snow/ice was chipped up and disposed of in hazmat bags.

Monday, March 29, 2021 1:30:00 PM	Hydraulic Oil	20.00	Lake A8 Drill SH-102 #1 (M21-3244)	During environmental inspection, the drill rig was found to have areas with small amounts of hydraulic oil dripping from inside the rig onto the lake ice.	Spill pads were placed beneath the drips and the drill was shut down to address the issue. The leaking hose fittings were repaired and the contaminated snow/ice was chipped up and disposed of in hazmat bags.
Tuesday, March 30, 2021 11:30:00 AM	Engine Oil	10.00	M21-3244 Drill SH-85 #2	Petroleum product dripped from the engine door area of the drill and from the heating unit.	Spill pads were used and disposed of in Quatrex bags.