AGNICO EAGLE
MELIADINE

Meliadine Gold Project
NWB 2AM-MEL1631
May 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 May 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 May 2021

	Monthly Usage (m^3)
Camp and Mill (MEL-11)	42,285
Dust suppression	0
Total May	**42,285**
Year to date 2021	**182,650**

2.2 DEWATERING ACTIVITIES

No dewatering activities took place in 2021 so far.

2.3 MELIADINE DISCHARGE

No discharge from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) took place in 2021 so far.

2.4 MELVIN BAY DISCHARGE

No discharge to sea via the Final Discharge Point (MEL-26) took place in 2021 so far.

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 May 2021.

2.6 SEWAGE TREATMENT PLANT

In May 2021, 5,499 m^3 of treated wastewater was discharged into CP1. The majority of the sludge is disposed of in the WRSF.

2.7 CONTAINMENTS

No discharge from the Itivia fuel containment facility (Station Mel-25) took place in 2021 so far.

2.8 MONITORING ANALYTICAL DATA

In May 2021, one sample related to the Water Licence was taken. See below the analytical results from this sampling event. No exceedance occurred in May 2021.

MEL-11	Sample date	5/16/2021
	Sample type	N
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.73
Turbidity	**NTU**	< 0.1
Specific conductivity	**umhos/cm**	160
Hardness, as CaCO3 (T)	**mg/L**	41.7
Hardness, as CaCO3 (D)	**mg/L**	40.4
Total alkalinity, as CaCO3	**mg/L**	34
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	34
TDS	**mg/L**	75
TSS	**mg/L**	< 1
Total organic carbon	**mg/L**	3.8
Dissolved organic carbon	**mg/L**	3.7
WQ03- Major Ions		
Calcium	**mg/L**	12.3
Chloride	**mg/L**	23
Cyanide	**mg/L**	< 0.0050
Cyanide (free)	**mg/L**	< 0.0010
Cyanide (WAD)	**mg/L**	< 0.0010
Magnesium	**mg/L**	2.33
Potassium	**mg/L**	1.51
Sodium	**mg/L**	10.2
Sulfate	**mg/L**	8.4
Silica	**mg/L**	0.48
WQ04- Nutrients and Chlorophyll a		
Total ammonia	**mg/L**	< 0.050
Nitrate	**mg/L**	< 0.10
Nitrite	**mg/L**	< 0.010
Nitrate + nitrite	**mg/L**	< 0.10
Total Kjeldahl nitrogen	**mg/L**	0.24
Total phosphorus	**mg/L**	< 0.020
Orthophosphate	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0037
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00054

Barium	**mg/L**	0.0141
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium	**mg/L**	12.8
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00113
Iron	**mg/L**	0.015
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0033
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**	0.0800
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**	0.00046
Barium	**mg/L**	0.0135
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**	0.0058
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**	0.0771

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 May 5th, 2021 the landfill contained approximately 22,546 m^3 of material.

In May 2021, some contaminated soil (less then 1 m^3) was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 160,530 tonnes of ore were processed through the Mill in May 2021.

3.3 WASTE ROCK STORAGE FACILITY

In May 2021, a total of 65,072 tonnes of waste rock was removed in the mine development process. 28,636 tonnes were used as underground dry rockfill.

3.4 TAILINGS

125,343 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in May 2021. 35,187 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 May 2021.

Table 4.1: Summary of Agnico's Spill Reports in May 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
Saturday, May 08, 2021 12:00:00 AM	Diesel Fuel	2.00	Itivia Fuel Storage Facility Secondary Containment	A flex connector was found slightly leaking during the weekly fuel leak inspection, inside the Itivia Fuel Storage Facility Secondary Containment.	A drip pan was placed beneath the leak, the flex connector was isolated, the fuel line was drained and blind flanges were installed to avoid any future spillage.
Saturday, May 08, 2021 12:30:00 AM	Diesel Fuel	25.00	TIRI01	A return fuel line failed on a drill while drilling.	The drill was stopped immediately. Absorbent pads were used and disposed of as hazmat. The drill's fuel tank was emptied to prevent further spilling.
Thursday, May 13, 2021 5:00:00 AM	Diesel Fuel	1.50	Drill SH-19 (Haul truck parking area)	Spill occurred due to the refueling tanker's (for drill SH-19) fuel gun nozzle not being properly stored back after use. It fell to the ground, and the fuel inside of the gun nozzle was spilled.	The contaminated soil (20L pail) was removed and disposed of according to procedure.
Thursday, May 13, 2021 5:30:00 AM	Sewage Water	80,000.00	Main Camp Lift Station	The access door of the main camp lift station was left open, which likely led to freezing within the pipe/Y joint and eventually failure of the joint, releasing sewage water.	As soon as the issue was discovered, the water throughout the camp and MSB was shut off. The sucker truck was used to pump water out of the lift station, as well as any product that was pooling outside the lift station. A temporary containment berm was built to contain the spill. Peat was placed on top of the pooling water on the south side of the camp to absorb it and prevent further downstream flow. Pooled water that was recovered was discharged back into the water treatment system. The sand and soil used to contain the water was later removed, placed in the WRSF and

					encapsulated in waste rock.
Thursday, May 13, 2021 7:30:00 AM	Power Steering Fluid	10.00	MSB Shop Yard	The steering hose broke off on an equipment while driving.	The equipment was stopped right away. Absorbent pads were used to absorb the superficial oil. Contaminated soil was recovered and disposed of in three empty 45-gallons drums.
Saturday, May 15, 2021 4:00:00 PM	Hydraulic Oil	50.00	KCG shop yard	The oil cooler of an equipment failed.	The equipment was stopped and a drip pan was placed to capture the oil leak. Absorbent pads were used and disposed of into Quatrex bags.
Sunday, May 16, 2021 12:00:00 PM	Diesel Fuel	1.00	West side of Assay Lab	A small amount of diesel was spilled while refueling the frost fighter around the Assay Lab.	Contaminated soil (20L pail) was removed and placed into Landfarm A.
Tuesday, May 18, 2021 12:00:00 PM	Hydraulic Oil	20.00	Main Pad (row 5 and 6)	A hydraulic hose failed on the Hyster while lifting a sea can.	The equipment was stopped immediately. The contaminated soil was recovered and placed into a 45-gallon drum for disposal as hazmat.
Thursday, May 20, 2021 8:30:00 AM	Engine Coolant	6.00	MSB Parking Lot	A radiator leak occurred on a Toyota, which spilled engine coolant on the ground.	Absorbent pads and a drip pan were placed under the vehicle. Contaminated materials were disposed of as hazmat.
Thursday, May 20, 2021 11:00:00 AM	Hammer Oil	4.00	Portal 1 Intersection	A gallon of hammer oil and its spilled content were found on the side of the road near Portal 1 intersection.	Absorbent pads were used, which were disposed of in a Quatrex bag with the plastic container.
Thursday, May 20, 2021 10:30:00 PM	Hydraulic Oil	45.00	WRSF1	The hydraulic hose of the dozer failed during normal operation of the equipment.	Absorbent pads were used to clean-up the spill and disposed of into a Quatrex bag. Some contaminated soil was removed and brought to Landfarm A.

Monday, May 31, 2021 2:00:00 PM	Hydraulic Oil	5.00	Lake B5	During an exploratory drilling campaign near local lake B5, workers noticed a hydrocarbons sheen on the surface runoff surrounding the drill. The drill was set up approximately 39m from the ordinary high-water mark of the lake, in a low-lying area prior to freshet, which later encountered substantial surface runoff as temperatures warmed. Hydrocarbon residues on the components and surfaces of the drill equipment were being washed off by the freshet runoff towards B5 lake.	The drill was shut down on May 31st to address the issue and materials such as fuel tanks, hoses and other equipment which may present hydrocarbon contaminated surfaces were moved to higher ground away from freshet runoff. Absorbent pads and booms were put in place to capture the hydrocarbons at the surface of water. The contaminated absorbent materials were recovered into Quatrex hazmat bags. The procedure for drilling just prior and during freshet is being modified to ensure that drills are not operational during this period where large freshet inflows can be problematic.