



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

**Prepared for:**

Nunavut Water Board

**Prepared by:**

Agnico Eagle Mines Limited – Meliadine Division

March 2021

## Table of Contents

<b>SECTION 1 • BACKGROUND.....</b>	<b>3</b>
<b>SECTION 2 • WATER MANAGEMENT .....</b>	<b>3</b>
2.1 WATER USAGE .....	3
2.2 DEWATERING ACTIVITIES .....	3
2.3 MELIADINE DISCHARGE .....	3
2.4 MELVIN BAY DISCHARGE .....	3
2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM .....	3
2.6 SEWAGE TREATMENT PLANT .....	3
2.7 CONTAINMENTS.....	4
2.8 MONITORING ANALYTICAL DATA .....	4
<b>SECTION 3 • MATERIAL MANAGEMENT.....</b>	<b>7</b>
3.1 LANDFILL / LANDFARM.....	7
3.2 ORE .....	7
3.3 WASTE ROCK STORAGE FACILITY.....	7
3.4 TAILINGS .....	7
<b>SECTION 4 SPILL MANAGEMENT.....</b>	<b>7</b>
4.1 INTERNAL AND REPORTABLE SPILLS .....	7

## 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 February 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 February 2021**

	Monthly Usage (m <sup>3</sup> )
Camp and Mill (MEL-11)	32,827
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total February	<b>32,827</b>
Year to date 2021	<b>68,507</b>

### 2.2 DEWATERING ACTIVITIES

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

### 2.3 MELIADINE DISCHARGE

Discharge from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) started June 5<sup>th</sup>, 2020 and stopped October 4<sup>th</sup>, 2020. A total of 13,836 m<sup>3</sup> was discharged throughout October 2020.

### 2.4 MELVIN BAY DISCHARGE

Discharge to sea via the Final Discharge Point (MEL-26) started August 10<sup>th</sup> 2020 and stopped October 8<sup>th</sup>, 2020. A total of approximately 5,275 m<sup>3</sup> 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 February 2021.

### 2.6 SEWAGE TREATMENT PLANT

In February 2021, 4,350 m<sup>3</sup> 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 27<sup>th</sup> and ended in July 2020. Approximately 3,780 m<sup>3</sup> was discharged through the discharge period.

## 2.8 MONITORING ANALYTICAL DATA

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

Sample date		2/8/2021
Parameter	Unit	
<b>WQ02- Conventional Parameters</b>		
pH	pH units	7.31
Turbidity	NTU	0.1
Specific conductivity	umhos/cm	130
Hardness, as CaCO <sub>3</sub> (T)	mg CaCO <sub>3</sub> /L	35.4
Hardness, as CaCO <sub>3</sub> (D)	mg CaCO <sub>3</sub> /L	34.5
Carbonate, as CaCO <sub>3</sub>	mg CaCO <sub>3</sub> /L	< 1.0
Bicarbonate, as CaCO <sub>3</sub>	mg CaCO <sub>3</sub> /L	25
Total alkalinity, as CaCO <sub>3</sub>	mg CaCO <sub>3</sub> /L	25
TDS	mg/L	105
TSS	mg/L	< 1
Total organic carbon	mg/L	3.7
Dissolved organic carbon	mg/L	3.6
<b>WQ03- Major Ions</b>		
Chloride	mg/L	21
Silica	mg/L	0.44
Cyanide	mg/L	< 0.0050
Cyanide (free)	mg/L	0.0028
Cyanide (WAD)	mg/L	< 0.0010
Calcium	mg/L	10.6
Magnesium	mg/L	1.95
Potassium	mg/L	1.28
Sodium	mg/L	8.85
Sulfate	mg/L	7.5
<b>WQ04- Nutrients and Chlorophyll a</b>		
Total ammonia	mg-N/L	< 0.050
Nitrate	mg-N/L	< 0.10
Nitrite	mg-N/L	< 0.010

Nitrate + nitrite	mg-N/L	< 0.10
Total Kjeldahl nitrogen	mg-N/L	0.23
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	< 0.010
<b>WQ06- Total Metals</b>		
Aluminum	mg/L	0.0047
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00047
Barium	mg/L	0.0116
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Calcium	mg/L	10.7
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00097
Iron	mg/L	0.018
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0044
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	0.0660
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
<b>WQ07- Dissolved Metals</b>		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00041
Barium	mg/L	0.0113
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00097
Iron	mg/L	0.0053
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	0.0686
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
<b>WQ10- Volatile Organics</b>		
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	-	YES

## **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 26<sup>th</sup>, 2021 the landfill contained approximately 20,544 m<sup>3</sup> of material.

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

### **3.2 ORE**

Approximately 134,304 tonnes of ore were processed through the Mill in February 2021.

### **3.3 WASTE ROCK STORAGE FACILITY**

In February 2021, a total of 56,987 tonnes of waste rock was removed in the mine development process. 34,061 tonnes were used as underground dry rockfill.

### **3.4 TAILINGS**

106,036 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in February 2021. 28,268 tonnes of tailings were used for paste underground backfill.

## **SECTION 4 SPILL MANAGEMENT**

---

### **4.1 INTERNAL AND REPORTABLE SPILLS**

Spills reported internally (3) 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. No reportable spill occurred in February 2021.

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

<b>Date and time of occurrence</b>	<b>If material not listed in dropdown or more details, enter here</b>	<b>Estimated quantity (l)</b>	<b>Exact location of incident</b>	<b>Description of incident</b>	<b>Describe immediate corrective actions</b>
Saturday, February 13, 2021 6:30:00 PM	Transmission Oil	6.00	Water Treatment Center	The driver hit a rock with the pickup, the rock broke a piece of the transmission cooler and caused the leak.	The vehicle spill kit was used to contain the spill. The contaminated snow was scraped up and brought to the snow cell. The absorbent pads will be disposed of as hazardous waste.
Sunday, February 21, 2021 4:30:00 AM	Diesel Fuel	25.00	South of tailing dewatering building	When fuel truck operator engaged the PTO his nozzle was still engaged causing fuel to spill until kill switch was shut off.	Spill pads were put over fuel, spill was contained. Snow was picked up and sent to snow cell.
Wednesday, February 24, 2021 10:30:00 AM	Petroleum Products	23.08	400 Gear Bay	During rock breaking work a hose broke.	The spill was contained and absorbent pads were used to clean the area and disposed in the hazmat bag.