



**Meliadine Gold Mine
NWB 2AM-MEL1631
November 2024 Monthly Report**

Prepared for:

Nunavut Water Board

Prepared by:

Agnico Eagle Mines Limited – Meliadine Division

Table of Contents

SECTION 1 •	BACKGROUND.....	1
SECTION 2 •	WATER MANAGEMENT.....	1
2.1	WATER USAGE.....	1
2.2	DEWATERING ACTIVITIES.....	1
2.3	WATER DISCHARGE.....	1
2.4	SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM	2
2.5	SEWAGE TREATMENT PLANT	2
2.6	MONITORING ANALYTICAL DATA	2
SECTION 3 •	MATERIAL MANAGEMENT.....	3
3.1	LANDFILL / LANDFARM	3
3.2	ORE, WASTE ROCK STORAGE FACILITY, TAILINGS.....	4
SECTION 4	SPILL MANAGEMENT	5
4.1	INTERNAL AND REPORTABLE SPILLS	5

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 November 2024.

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 the monthly water usage in 2024

Usage	Unit	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2024 Total
MEL-11 ¹	m ³	46,859	40,057	43,273	42,794	33,136	40,333	50,559 ²	53,277	42,069	42,869	39,961	-	475,187
Dust suppression ³	m ³	0	0	0	0	0	0	0	0	0	0	0	-	0
Dust suppression ⁴	m ³	0	0	0	0	579	3,121	2,753	2,241	0	18	0	-	8,712

2.2 DEWATERING ACTIVITIES

No dewatering activities took place during the month.

2.3 WATER DISCHARGE

Table 2.3 details monthly water discharge, including:

- discharge from the EWTP to Meliadine Lake via the Final Discharge Point (MEL-14);
- discharge of treated saline effluent to Melvin Bay via the Final Discharge Point (MEL-26), and
- discharge from the Itivia fuel containment facility (MEL-25).

¹ Camp, Mill, Dust suppression

² The July MEL-11 water usage was corrected in the August report

³ Water obtained along AWA/Meliadine River

⁴ Reclaim water obtained from CP1 or other Contact Water management facilities and used for dust suppression on site

Table 2.3: Summary of the monthly water discharge in 2024

Location	Unit	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2024 Total
MEL-14	m ³	0	0	0	0	0	171,936	72,724	0	370,142	246,675	0	-	861,477
MEL-26	m ³	0	0	0	0	0	0	0	0	0	0	0	-	0
MEL-25	m ³	0	0	0	0	0	0	0	0	300	0	0	-	300

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 during the month.

As per the approved Landfill (Stage 4) Berm Raise Design Report and Monitoring station MEL-24 description Modification, water accumulated inside the landfill is pumped towards Pond H13, which is the current location seepage from the landfill flows towards.

2.5 SEWAGE TREATMENT PLANT

Table 2.5 details monthly discharge from the Sewage Treatment Plant (STP), including the treated wastewater discharge to CP1 and sludge removed and disposed of in the WRSF.

Table 2.5: Summary of the monthly disposal/discharge from the STP in 2024

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2024 Total
Wastewater Discharge (m ³)		4,350	5,270	6,070	5,777	4,131	4,945	5,080	5,306	4,753	4,862	4,737	-	55,281
Sewage Sludge	Amount (m ³)	100	100	120	120	81.4	80	10.50	31	30	27	16	-	715.9
	Disposal Location	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	-	-

2.6 MONITORING ANALYTICAL DATA

One (1) sample related to the Water Licence was taken during the month. The analytical results are presented in Appendix.

SECTION 3 • MATERIAL MANAGEMENT

3.1 LANDFILL / LANDFARM

Table 3.1 details quarterly Landfill and Landfarm survey results, as well as the amount of material placed in the Landfarm every month.

Table 3.1: Summary of the monthly disposal in the Landfarm and quarterly survey volumes of Landfill and Landfarm

Location	Unit	Q1			Q2			Q3			Q4			2024 Total
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Landfill (Survey)	m ³	28,127			26,087			27,232			29,328			-
Landfarm (Survey)	m ³	604 ⁵			537			1,158			849			-
Landfarm ⁶	m ³	1.8	0.02	3.25	7.28	2.3	32.52	3.78	7.47	2.05	3.70	3.53	-	67.70

⁵ From landfarm survey conducted in October 2023. Surveys of the Landfarm are generally not conducted during the winter months, as the presence of snow would not allow a representative survey of the soil quantity.

⁶ Amount of contaminated solid material (soil) placed in the Landfarm or lined sorting area.

3.2 ORE, WASTE ROCK STORAGE FACILITY, TAILINGS

Table 3.2 details monthly material management, including processed ore, waste rock, and tailings.

Table 3.2: Summary of the monthly material management in 2024

Material (tonnes)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Cumulative 2024
Processed Ore		190,946	154,435	156,820	166,561	113,952	144,504	190,576	181,680	160,296	156,033	162,932	-	1,778,735
Waste Rock	Removed from open pit mining	175,380	534,627	845,427	701,244	344,631	231,788	481,603	397,615	349,551	377,590	388,372	-	4,827,828
	Removed from underground mining ⁷	71,281	67,267	73,926	87,413	54,382	71,177	65,504	74,681	75,460	78,428	84,514	-	832,147
	Used as underground dry rockfill	49,823	31,805	10,566	31,716	18,233	13,755	23,217	54,582	33,645	56,595	62,089	-	386,027
Tailings	Send to TSF	144,379	107,392	111,857	125,769	83,808	110,265	152,691	151,392	125,887	117,712	141,206	-	1,372,358
	Used as paste underground backfill	46,567	47,043	44,963	40,792	30,144	34,239	37,885	30,288	34,409	38,321	21,726	-	406,377

⁷ Waste rock removed from underground mining from January to November were updated in November report

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

Spills reported internally are listed in the table 4.1 and were managed according to Agnico Eagle'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. One (1) reportable spill during the month (Refer to the gray shading in Table 4.1).

Table 4.1: Summary of Agnico Eagle's Spill Reports during the month

Date and time of occurrence	Contaminant	Estimated quantity	Exact location of incident	Description of incident	Describe immediate corrective actions
Friday, November 01, 2024 3:00:00 AM	Diesel Fuel	10 L	Portal 1	During a preventive maintenance operation, an employee noticed a small leak in the return line of a generator tank. When the line was inspected, a small hole was discovered in the line, which slowly leaked fuel.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin. Contaminated material was scrapped and disposed of in the landfarm.
Sunday, November 03, 2024 1:30:00 AM	Hydraulic Oil	1 L	Near CP4	During operation of a bulldozer, an operator noticed a brown liquid on the ground. Hydraulic oil was leaking from the rear of the bulldozer.	Contaminated material was scrapped and disposed of in quatrex bag.
Saturday, November 09, 2024 8:00:00 PM	Sewage	60 L	Wing 4	E&I personnel responded to a high-level alarm at the Wing 4 lift station. Upon arrival, an estimated 60 L of sewage was observed to have spilled onto the industrial pad outside of the lift station.	The Energy and Infrastructure (E&I) Maintenance supervisor received an alert from the high-level alarm at the Wing 4 lift station and dispatched a plumber to investigate. Upon arrival, the plumber discovered the spill and manually initiated the lift station pumps to stop the spill. A vacuum truck was sent to empty the material inside the secondary containment. The contaminated material on the industrial pad was then excavated and transported to the Landfarm A, in

					accordance with the Spill Contingency Plan.
Tuesday, November 12, 2024 3:00:00 PM	Hydraulic Oil	25 L	TSF Snow dump	While dumping a load at the TSF snow dump, the operator looked in the rear-view mirror and noticed that an hydraulic hose had broken, causing a small spill on the ground.	Contaminated material was scrapped and disposed of in the landfarm.
Friday, November 15, 2024 9:00:00 AM	Petroleum products	30 L	CP4	Operator was working on the excavator when a hydraulic hose came out of fitting resulting in a 30L spill onto the ground.	Contaminated material was scrapped and disposed of in the landfarm.
Thursday, November 21, 2024 6:00:00 AM	Rockdrill oil	2 L	TIRI01	While driving up a steep ramp, an unsealed container of rockdrill oil fell inside the tanker body and spilled 2L onto the ground.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin. Contaminated material was scrapped and disposed of in a tote.
Wednesday, November 27, 2024 9:30:00 AM	Raw water from Meliadine Lake	2000 L	Inside Portal 2 Dome	While the water truck was inside the Portal 2 dome, water began to leak out of the valve at the bottom of the tank. The operator called his supervisor to come and have a look. When the supervisor arrived, he barely touched the valve, and it broke off due to corrosion.	Water was vacuumed back in the water truck.
Wednesday, November 27, 2024 7:30:00 PM	Petroleum products	45 L	Main camp	While working at the main camp, the telehandler stopped working all of a sudden. The operator decided to go to the maintenance shop to see a mechanic. Upon exiting the telehandler, the operator noticed an oil leak. The operator then realized that the spill had started at the main camp. First spill occurred in front of the main camp luggage loading area (15 L) and the second one in front of Bay 5 (30 L).	Contaminated material was scrapped and disposed of in quatrex bag.

Appendix – Monitoring Analytical Data

MEL-11		11/4/2024
Parameter	Unit	
WQ02- Conventional Parameters		
pH	pH units	7.47
Turbidity	NTU	0.4
Conductivity	ms/cm	0.144
Hardness, as CaCO ₃	mg/L	35.0
Total alkalinity, as CaCO ₃	mg/L	24
Carbonate, as CaCO ₃	mg/L	< 1.0
Bicarbonate, as CaCO ₃	mg/L	24
TDS	mg/L	50
TDS, calculated	mg/L	70
TSS	mg/L	< 1
Total organic carbon	mg/L	3.9
Dissolved organic carbon	mg/L	4.0
WQ03- Major Ions		
Chloride	mg/L	20
Cyanide	mg/L	< 0.00050
Cyanide (free)	mg/L	< 0.0020
Cyanide (WAD)	mg/L	< 0.00050
Silica	mg/L	0.66
Sulfate	mg/L	11
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	mg/L	< 0.050
Nitrate (as N)	mg/L	< 0.10
Nitrite (as N)	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	0.0076
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00069
Barium	mg/L	0.0099
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00098
Iron	mg/L	0.019
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020

Manganese	mg/L	0.0027
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	0.0601
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	0.00070
Barium	mg/L	0.0103
Beryllium	mg/L	< 0.00010
Boron	mg/L	< 0.050
Cadmium	mg/L	< 0.000010
Calcium (Dissolved)	mg/L	12.0
Chromium	mg/L	< 0.0010
Copper	mg/L	0.00111
Iron	mg/L	0.0058
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium (Dissolved)	mg/L	2.17
Manganese	mg/L	< 0.0010
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium (Dissolved)	mg/L	1.30
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Sodium (Dissolved)	mg/L	9.17
Strontium	mg/L	0.0651
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	< 0.09
F3 (C16-C34)	mg/L	< 0.2
F4 (C34-C50)	mg/L	< 0.2