



AGNICO EAGLE

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT: SEPTEMBER 2017

WATER LICENCE 2BB-MEL1424

**SUBMITTED TO THE
NUNAVUT WATER BOARD**

Contact:

Alex Chernoloz
Environmental Compliance Counselor
AGNICO EAGLE Mines Ltd.
Phone : 1 (819) 759-3555 (ext. 8136)
alex.chernoloz@agnicoeagle.com

Jeffrey Pratt/Jessica Huza
Senior Environmental Coordinator
AGNICO EAGLE Mines Ltd.
Phone : 1 (819) 759-3555 (ext. 3928)
Mobile : 1 (306) 960-2370
Jeffrey.pratt@agnicoeagle.com / jessica.huza@agnicoeagle.com

Erika Voyer
Environment General Supervisor
AGNICO EAGLE Mines Ltd.
Mobile : 1 (819) 856-1956
erika.voyer@agnicoeagle.com

A. This monthly report is delivered under water license 2BB-MEL1424, PART J, Item 13.

1. *The Licensee shall maintain Monitoring Stations at the following locations:*

Table 1: Monitoring stations

Monitoring Program Station Number	Description	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (Volume cubic metres)
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume cubic metres)
MEL-5	Point of discharge for the Bermed Fuel Containment Facilities	Active
MEL-6	Effluent from the Landfarm Treatment Facility prior to release	New
MEL-7	Final Effluent Discharge from the BIODISK treatment system	Active
MEL-8	Point of discharge or runoff from the Non-Hazardous Waste landfill	(New) Active

2. *The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling and other purposes from all sources.*

Table 2: Water quantities utilized

MEL-1 ¹	Daily average (m ³)
Camp	28.99
Construction	0.00
MEL-2 (A8) ²	
Underground	8.99
Drilling	0.00
Not MEL-1 or MEL-2	
Drilling	0
September Daily Average	37.98
Total September	1,139
Total 2017	14,089

3. *The Licensee shall measure and record the volume of all soil from all locations entering the Landfarm Treatment Facility.*

In September 2017, 1 m³ of contaminated soil was brought to the landfarm.

¹ MEL-1: 541943E, 6989174N

² MEL-2 (A8): 540076E, 6987731N

4. **The Licensee shall assess and record the concentration of F1 – F4 fractions in petroleum hydrocarbon contaminated soil, according to the CCME Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil that is entering the Land Treatment Unit from all sources and excavations.**

No soil samples were taken in September 2017 from the landfarm.

5. **The Licensee shall provide the GPS coordinates (in decimal degrees) of all locations where wastes associated with camp operations and exploration activities are deposited.**

Table 3: GPS Coordinates of the landfill and landfarm

	Landfill	Landfarm
Latitude	63.03063	63.02386
Longitude	-92.22089	-92.18639

6. **Licensee shall sample at Monitoring Program Station MEL-7, monthly during wastewater effluent discharge. Samples shall be analyzed for the parameters listed under Part D Item 11:**

pH
Biochemical Oxygen Demand – BOD5
Total Suspended Solids (TSS)
Fecal Coliforms
Oil and Grease (and visual)

Four (4) samples were collected during the month. The summary of the results is provided in table 4 below.

An exceedance of the fecal coliforms was detected in the sample, collected on September 25, 2017 (4,200 CFU/100 ml versus 1,000 CFU/100 ml limit set in the license), this was reported as a spill to the relevant authorities. An investigation is underway to determine the cause of the incident. Upon completion, a follow up report will be issued.

Table 4: Effluent testing results

Station: STP-FINAL (MEL-7)		September			
DATE	Limits	9/4/2017	9/11/2017	9/18/2017	9/25/2017
Biochemical Oxygen Demand	80 mg/L	3	3	10	7
pH	6.0 - 9.5	7.72	7.63	7.55	7.22
Total Suspended Solids	100 mg/L	2	2	15	5
Atypical Bacteria (CFU/100 ml)		45000	32000	200	19000
Fecal Coliforms (CFU/100ml)	1000	120	<10	<10	4200
Heterotrophic Plate Count (AAHB) (CFU/100ml)		>30000	>30000	20,200	30,000
Total Coliforms (CFU/100ml)		<1000	<1000	200	16000

7. **The Licensee shall, prior to the release of effluent from the Bermed Fuel Containment Facilities at Monitoring Program Station MEL-5 and the Landfarm Treatment Facility at Monitoring Program Station MEL-6 for the purpose of demonstrating compliance, sample for the parameters listed under Part D item 15.**

In September, no water was released from the Bermed Fuel Containment Facilities (Monitoring station MEL-5) and the Landfarm Treatment Facility (Monitoring Station MEL-6).

- 8. The Licensee shall obtain representative samples of the water column below any ice where required under part F, Items 5 and 6. Monitoring shall include but not limited to the following:**

Total Suspended Solids

pH

Electrical Conductivity, and

Total trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and Trace Arsenic and Mercury.

No on-ice drilling was conducted during the month of September. Sampling will resume in winter.

- 9. Modify the monthly monitoring reports, starting April 2016, to include, at a minimum, waste water treatment options; and modifications of the freshet action plan.**

1. Waste water treatment options:

In September, 402 m³ was pumped from the underground mine to the P-cells.

Water is not transferred from the P-Cells and is evaporated; the evaporators started operation in June and were decommissioned in September.