



Agnico Eagle Meliadine  
Water License 2BB-MEL1424  
January 2018 Monthly Monitoring  
Summary Report

February 20, 2018

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 m <sup>3</sup> )
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume m <sup>3</sup> )
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 <sup>1</sup>	Daily average (m <sup>3</sup> )
Camp	25.84
Pump Shack	1.21
Construction	0.00
MEL-2 (A8) <sup>2</sup>	
Underground	2.38
Drilling	0.00
Not MEL-1 or MEL-2	
Drilling	7.55
January Daily Average	37.33
Total January	1,196
Total 2018	1,196

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

In January 2018, no material entered the type B landfarm.

<sup>1</sup> MEL-1: 541943E, 6989174N

<sup>2</sup> 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 January 2018 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
<b>Latitude</b>	63.03063°	63.02386°
<b>Longitude</b>	-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)*

The STP upgrade and maintenance program was initiated in November 2017. The effluent from the exploration camp was trucked to and treated at the main camp STP. In January 2018 no effluent was discharged from the Explo STP, Agnico continued to monitor the quality of the effluent; six samples were collected during the month. The summary of the results is provided in Table 4 below.

Table 4: Effluent testing results at STP-FINAL (MEL-7) sampling station

Parameters	Limits	1/2/18	1/4/18	1/8/18	1/15/18	1/22/18	1/29/18
Biochemical Oxygen Demand, mg/L	80 mg/L	12	11	6	5	9	4
pH	6.0 - 9.5	6.94	7.15	7.49	6.87	7.72	7.18
Total Suspended Solids, mg/L	100 mg/L	8	5	7	9	14	5
Atypical		66,000	ND <sup>3</sup>	<10	1,020	530	10
Fecal Coliforms (CFU/100mL)	1000	<10	ND	<10	<10	<2	<2
Heterotrophic Plate Count (AAHB) (CFU/100mL)		21,000	ND	360	1,000	820	430
Total Coliforms (CFU/100mL)		<1,000	ND	<10	200	10	10

<sup>3</sup> No data (frozen sample)

- 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 January, 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 January.

- 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.**

In January, underground mine development water was stored for future treatment. Domestic wastewater from the exploration camp was treated using the BIODISK/BIONEST treatment system; the discharge of treated water into the environment was suspended on November 15 to allow for the upgrade and maintenance of the system. All wastewater from the exploration camp was trucked to the main camp for treatment.