



Meliadine Gold Project
NWB 2BB-MEL1424
August 2018 Monthly Report

Prepared for:
Nunavut Water Board

Prepared by:
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September 20th, 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 Station	Description	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (Volume m ³)
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume m ³)
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 (average)

MEL-1 ¹	Camp	m ³ /day	32.94
	Pump Shack	m ³ /day	2.71
	Construction	m ³ /day	0.00
MEL-2 (A8) ²	Underground	m ³ /day	1.94
	Drilling	m ³ /day	0.00
Not MEL-1 or MEL-2	Drilling	m ³ /day	16.77
August Daily Average		m ³ /day	54.36
Total August		m ³	1,685
Total 2018		m ³	14,070

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

In August 2018, no material entered the type B landfarm, all new contaminated material is brought to the Type A 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 August 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	Incinerator
Latitude	63.03063°	63.02386°	63.02981°
Longitude	-92.22089°	-92.18639°	-92.16750°

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, treated at the exploration STP and trucked to and discharged into CP1. Agnico continued to monitor the quality of the effluent; 4 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, August 2018

Parameters	Limits	8/6	8/13	8/20	8/27
Biochemical Oxygen Demand, mg/L	80	7	3	5	9
pH	6.0 - 9.5	7.29	6.81	7.55	7.58
Total Suspended Solids, mg/L	100	2	3	3	12
Oil and Grease, mg/L	5	4.6	0.8	0.8	<0.5
Atypical	-	1080	173000	800	51000
Fecal Coliforms (CFU/100mL)	1000	<2	<2	14	<2
Heterotrophic Plate Count (AAHB) (CFU/100mL)	-	250	209000	5000	102000
Total Coliforms (CFU/100mL)	-	<10	28000	3300	1000

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 August, 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 water samples below ice was taken in August as there were no ice from which to take samples.

- 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.***

Water, treated at the exploration STP continued to be trucked to and discharged into CP1.