



AGNICO EAGLE

MELIADINE GOLD PROJECT

ENVIRONMENTAL REPORT: MARCH 2016

WATER LICENCE 2BB-MEL1424

PRESENTED TO THE NUNAVUT WATER BOARD

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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.**

The daily average consumption of fresh water for the site was 51.62 m³/day for the month of March; 1.16 m³/day for the drilling, 30.81 m³/day^{***} for the camp and 19.64 m³/day for the underground.

*** The volume includes the indirect water use.

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

No new material added.

- 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 new material added.

5. The Licensee shall provide the GPS coordinates of all locations where sources of water are utilized for all purposes. In UTM nad 1983 zone 15.

- Camp water source: East 541943.0; North 6989174.0
- Underground water source: East 540076.0; North 6987731.0

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

The landfill has not been constructed yet, so most of the waste continues to be managed in containers. These containers are transported by barge during the summer and disposed of in an approved southern facility.

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

Biochemical Oxygen Demand – BOD5

Total Suspended Solids

Oil and Grease (and visual)

Fecal Coliforms

pH

Work on STP upgrade: Two BioNest are operating and recirculation line had been removed following validation of treatment (with soda ash addition); samples were collected for “10 days’ notice prior to discharge” on Mar 7th. Results confirmed adequate treatment. As of March 18, the two BioNest are now running independently and effluent being sampled at STP-Final/MEL-7 sample point in combination with Biodisc. New grease trap has been installed and is online; Aerator and bacteria system repaired and ready to be install.

One exceedance occurred in March. The March 2nd sample returned with a 33mg/l Oil and Grease record. An investigation immediately took place. After inquiry, it was found that maintenance had took place on the STP system the same day as the sample was taken and greased fittings had been installed prior to sampling. This is the probable cause. All samples after this date have been non detect.

Corrective action: almost all maintenance is completed on the STP upgrade and no further install of fittings, etc. are foreseen at this time.

Station: STP-FINAL**March**

DATE	Limits	3/2/2016	3/7/2016	3/14/2016	3/21/2016	3/30/2016
Ammonia as N		<0.01	<0.01	<0.01	0.09	0.03
Biochemical Oxygen Demand	80	7.0	4.0	8.0	6.0	5.0
Heterotrophic Plate Count (AAHB)		186,000.0	272,000.0	>300000	>300000	>300000
Nitrate-N		18.1	19.2	23.4	24.3	28.2
Nitrate and Nitrite as N		18.4	19.90	23.60	25.00	28.90
Nitrite-N		0.25	0.63	0.2	0.61	0.61
Oil & Grease-(IR)	5	33.0	<1	<1	<1	<1
Phosphorus (P)-Total		13.3	8.66	11.3	12.8	4.9
TKN		3.63	1.76	2.03	16.50	10.1
Total Suspended Solids	100	<1	4	<1	10.0	2.0
Transmittance %		51.4	57	56.0	49.0	51.0
pH	6.0 - 9.5	7.3	7.66	6.8	7.43	7.1
Fecal Coliforms	1000	<2	<2	<2	<2	<2
Total Coliforms		20,000.0	<1000	1,500.0	<1000	<100
Atypical		70000	65,000	20,000	18000	15700

8. ***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.***

➤ No release in February.

9. ***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 drilling was done in February on lake.

10. **The inspector, Christine Wilson (INAC inspector), requested AEM to continue monitoring the ponded water at the rear of these facilities during times of flow with the same parameters as MEL-8 and the result must be included in the monthly monitoring report provided to the Nunavut Water Board (“the Board”) and the Inspector.**

➤ No sampling possible during the winter.