AGNICO EAGLE
MELIADINE

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

Prepared for:
Nunavut Water Board

Prepared by:
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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 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	36.28
	Pump Shack	m^3/day	12.23
	Construction	m^3/day	0.00
MEL-2 (A8)[2]	Underground	m^3/day	0.15
	Drilling	m^3/day	0.00
Not MEL-1 or MEL-2	Drilling	m^3/day	31.71
May Daily Average		m^3/day	78.80
Total May		m^3	2,364
Total 2018		m^3	8,554

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

In May 2018, no material entered the type B landfarm, as all material was brought to Type A landfarm instead.

[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 May 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
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)***

   The STP upgrade and maintenance program was initiated in November 2017. The effluent, treated at the exploration STP and was trucked to and discharged into CP1. Agnico continued to monitor the quality of the effluent; 5 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, May 2018

Parameters	Limits	5/7	5/8	5/14	5/21	5/28
Biochemical Oxygen Demand, mg/L	80	4	-	7	3	4
pH	6.0 - 9.5	7.71	-	7.45	7.78	7.78
Total Suspended Solids, mg/L	100	4	-	5	4	4
Oil and Grease, mg/L	5	<0.50	-	0.8	0.8	<0.50
Atypical	-	n/a	230	n/a	50	n/a
Fecal Coliforms (CFU/100mL)	1000	n/a	<2	n/a	<2	<2
Heterotrophic Plate Count (AAHB) (CFU/100mL)	-	n/a	590	n/a	260	210
Total Coliforms (CFU/100mL)	-	n/a	<10	n/a	<10	10

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 May, 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.

   On-ice drilling was conducted in April – May 2018. Samples were collected from 4 temporary monitoring stations: MEL-LAKE-004, MEL-LAKE-008, D12-001, D12-003. The tabular results of the analyses are provided in the Appendix A [The analysis results of "after drilling" sampling for D12-003, taken on June 3, 2018, are still pending, and will be presented with the next monthly report]. Based on those results[3], no decrease in water quality was observed as a result of the drilling campaign.

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

[3] Partial results, in case of D12-003

Appendix A: Tabular results of water quality prior to and upon completion of the drilling programs through lake ice.

Sample ID	MEL-LAKE-004	MEL-LAKE-004	MEL-LAKE-004	MEL-LAKE-008	MEL-LAKE-008
Stage	Before	During	After	Before	After
Easting	533193	533193	533193	535367	535367
Northing	6991246	6991246	6991246	6987546	6987546
Date	2018-04-19	2018-04-23	2018-04-25	2018-05-15	2018-05-28
Conductivity (uS/m)	101	110	111	82	140
Hardness, mg CaCO3/L	29	34	34	60	53
Tss (mg/L)	<1	1	3	8	1
Turb. (NTU)	0.72	0.65	1.71	-	1.4
Ag (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	0.0216
Al (mg/L)	<0.006	0.017	0.017	0.053	0.051
As (mg/L)	<0.0005	<0.0005	<0.0005	0.0034	<0.0005
Be (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
B (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01
Ca(mg/L)	9.19	10.8	10.9	19.8	17.4
Cl (mg/L)	12.7	14.9	14.6	20.7	17.2
Co (mg/L)					<0.0005
Cu (mg/L)	0.0022	0.0011	0.0052	0.0058	0.016
Fe (mg/L)	0.05	<0.01	0.1	0.09	0.23
Pb (mg/L)	<0.0003	<0.0003	<0.0003	0.0019	0.0042
K (mg/L)	1.35	1.36	1.43	2.05	1.65
Li (mg/L)	<0.005	0.04	0.02	<0.005	0.017
Mg (mg/L)	1.64	1.8	1.82	2.7	2.33
Hg (mg/L)	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Mo (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.0006
Na (mg/L)	6.48	6.76	6.9	9.02	8.59
Ni(mg/L)	0.0029	0.0006	0.0017	0.0026	0.0078
Sb (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	0.0001
Se (mg/L)	<0.001	<0.001	<0.001	0.003	<0.001
Sn (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
SO4 (mg/L)	4	9.7	8.9	8.8	7.2
Sr (mg/L)	0.045	0.053	0.056	0.085	0.081
Ti (mg/L)	<0.01	0.01	0.01	0.01	0.01
Tl (mg/L)					<0.0008
U (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
V (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Zn (mg/L)	0.001	0.004	0.013	0.028	0.028

Sample ID	D12-001	D12-001	D12-001	D12-003	D12-003
Stage	Before	During	After	Before	During
Easting	532742	532742	532742	535367	535367
Northing	6990445	6990445	6990445	6987546	6987546
Date	2018-03-18	2018-04-15	2018-04-23	2018-05-15	2018-05-26
Conductivity (uS/m)	560	619	575	159	554
Hardness, mg CaCO3/L	240	209	250	255	278
Tss (mg/L)	5	10	5	98	5
Turb. (NTU)	4.12	6.01	3.02	-	5.7
Ag (mg/L)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Al (mg/L)	0.037	0.048	0.011	0.141	0.103
As (mg/L)	0.002	<0.0005	<0.0005	0.0146	<0.0005
Be (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
B (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01
Ca(mg/L)	77.7	68.8	81	83.4	92
Cl (mg/L)	41.6	48.5	47.7	50.8	49.6
Co (mg/L)				0.0013	
Cu (mg/L)	0.0065	0.0048	0.0017	0.0064	0.0074
Fe (mg/L)	0.39	0.92	0.15	9.32	0.4
Pb (mg/L)	0.0038	<0.0003	<0.0003	0.0024	0.0044
K (mg/L)	5.65	4.43	4.93	5.47	5.49
Li (mg/L)	<0.005	0.009	0.029	<0.005	0.006
Mg (mg/L)	11.2	9.27	11.6	11.5	11.9
Hg (mg/L)	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Mo (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Na (mg/L)	20.1	16.4	24.3	19.9	21.2
Ni(mg/L)	0.0045	0.0063	0.0134	0.0196	0.0164
Sb (mg/L)	0.0002	<0.0001	<0.0001	0.0001	0.0005
Se (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
Sn (mg/L)	<0.001	0.003	<0.001	<0.001	<0.001
SO4 (mg/L)	27	32.8	32.4	30.4	31.9
Sr (mg/L)	0.341	0.517	0.423	0.425	0.464
Ti (mg/L)	0.07	0.07	0.04	0.08	0.1
Tl (mg/L)					
U (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001
V (mg/L)	<0.0005	<0.0005	<0.0005	0.0011	0.0018
Zn (mg/L)	0.043	0.027	0.013	0.029	0.052