



MEADOWBANK DIVISION

Monitoring Program Summary Report

March 2013

Type A Water License 2AM-MEA0815

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SECTION 1 • **BACKGROUND**

As required under Part I, Item 25 of Type A Water License 2AM-MEA0815, this report documents the water management and monitoring activity at the mine site for the month. This includes water usage, Portage Attenuation Pond discharge water quality, airstrip extension and sewage treatment plant discharge water quality (to onsite storm water management pond).

In addition, a summary of spills/actions for the month is included.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Freshwater usage for March 2013 is summarized in Table 2.1 below. Total freshwater used for the month was 352,802 m³. The total freshwater used to date is 545,625 m³. The total amount of reclaim water used in the mill for March was 0 m³.

In February 2013, the reclaim water barge became unusable as a result of accidental shifting and intake of excess solids (mill slurry). This was also due to an overall lack of water in the reclaim pond. On February 21, 2013, ore processing began using fresh water only. Attempts were made to repair the barge, but were not successful, and due to frozen conditions, repositioning of the barge at this time was not possible. As a result of these conditions, fresh water use is anticipated to be higher than predicted in 2013.

Meadowbank's current NWB License (2AM-MEA0815) permits Agnico Eagle Mines Ltd. (AEM) to obtain 700,000 m³ per year of fresh water for domestic camp use, mining, milling and associated uses. Despite significant success at engineering solutions to optimize fresh water use, requirements are projected to continue to exceed the permitted rate. Increased fresh water use is due to higher than anticipated rates of ore processing, and an adjustment of the initial water balance model, resulting in a deficit of reclaimed water. Agnico Eagle Mines (AEM) Meadowbank Division will send in April 2013 a request to the Nunavut Water Board for an amendment to the freshwater use rate at the Meadowbank Gold Project Water License # 2AM-MEA0815.

Table 2-1: Freshwater Usage (m³)

	March
Freshwater Storage Tank	352,622
Emulsion Plant	180
Water Truck	0
Total	352,802
Year to date total	545,625

Agnico Eagle Mines (AEM) will also apply in April 2013 for a modification to the Type A water license part F, item 4 to include East dike seepage water as non-contact water effluent. Non-contact water (receiving environment water from Second Portage Lake), is presently seeping through the East Dike and is collected by two sumps prior to pumping to the Portage attenuation pond. AEM is proposing to discharge seepage water from Second Portage Lake pump through a separate sump collection system and diffuser, back to Second Portage Lake prior to contact with mining activity (thus minimizing site contact

water). The overriding premise of this application for a modification is to pump clean lake water back to Second Portage Lake before it is affected by mine contact water. AEM is proposing to install a diffuser to control erosion and disturbance of the bottom sediment. Based on discharge modelling presented in the application, the discharge water quality is not expected to cause adverse effects to aquatic environment. Nevertheless, monitoring programs will follow Type A water license requirements including non-contact water monitoring, MMER sampling (if applicable) and Core Receiving Environment Monitoring Program.

2.2 SEWAGE TREATMENT PLANTS

Two (2) effluent wastewater samples were taken from the onsite sewage treatment plants (STP's) in March.

The Seprotech STP results are shown in Table 2.2.1 below; the LJ-Mix STP results are shown in Table 2.2.2. The results of the discharge indicate the system was working well. The effluent is discharged to the onsite storm water pond and is not discharged to the natural environment.

Table 2.2.1: Seprotech Effluent Results

Parameters	Units	4-Mar-13	18-Mar-13
Ammonia	mg N/L	<0.05	0.08
Ammonia-Ammonium	mg N/L	7	16.9
Total Kjeldahl Nitrogen	mg N/L	9	20
BOD-5	mg/L	3	10
COD	mg/L	41	63
Total Suspended Solids	mg/L	10	14
Nitrate	mg N/L	22	21.2
Nitrite	mg N/L	0.18	0.47
pH *	units	6.2	6.6
Fecal Coliform	UFC/100 mL	<4	500
Total Coliform	UFC/100 mL	40	1,300

*Parameter measured by STP operators

Table 2.2.2: LJ-Mix Effluent Results

Parameters	Units	4-Mar-13	18-Mar-13
Ammonia	mg N/L	<0.05	<0.05
Ammonia-Ammonium	mg N/L	21.1	11.5
Total Kjeldahl Nitrogen	mg N/L	25	18
BOD-5	mg/L	86	24
COD	mg/L	71	75
Total Suspended Solids	mg/L	49	26
Nitrate	mg N/L	34.9	19.8

Nitrite	mg N/L	0.15	0.81
pH *	units	5.8	6.2
Fecal Coliform	UFC/100 mL	260	600
Total Coliform	UFC/100 mL	3,000	4,200

*Parameter measured by STP operators

2.3 ATTENUATION POND EFFLUENT

For the month of March there is no effluent from the attenuation pond ST-9.

2.4 NON CONTACT WATER

In March, there was no water discharged to or through the diversion water ditch (ST-6 and ST-5) due to freezing conditions.

2.5 AIRSTRIP EXTENSION

As required under Part D, Item 15 of Type A Water License 2AM-MEA0815, this section show the March 2013 monitoring results during the airstrip extension construction.

Daily monitoring of airstrip began on March 20, 2013

The TSS concentrations for the airstrip extension construction were as follows:

- Maximum short-term TSS concentration from monitoring stations ST-AS-2, ST-AS-3 and ST-AS-4 was 1.8 mg/L (Maximum Limit is 50 mg/L)
- Monthly mean TSS concentration from monitoring stations ST-AS-2, ST-AS-3 and ST-AS-4 was 0.6 mg/L (Maximum Limit is 15 mg/L)

The March 2013 airstrip extension monitoring results are provided in Table 2.5.

Table 2.5 March 2013 airstrip extension monitoring

Date	ST-AS-2		ST-AS-3		ST-AS-4		Daily Maximum	
	Max NTU of day	Max TSS per day	Max NTU of day	Max TSS per day	Max NTU of day	Max TSS per day	Max NTU of day	Max TSS per day
2013-03-13	0.0	0.0	0.2	0.0	0.1	0.0	0.2	0.0
2013-03-20	0.4	0.1	0.0	0.0	1.6	0.4	1.6	0.4
2013-03-22	3.4	0.8	0.3	0.1	1.9	0.4	3.4	0.8
2013-03-23	1.6	0.4	0.3	0.1	0.4	0.1	1.6	0.4
2013-03-24	1.9	0.4	3.0	0.7	1.9	0.4	3.0	0.7

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2013-03-25	0.6	0.1	3.3	0.8	1.5	0.3	3.3	0.8
2013-03-26	0.5	0.1	0.7	0.2	1.3	0.3	1.3	0.3
2013-03-27	0.6	0.1	0.5	0.1	1.1	0.2	1.1	0.2
2013-03-28	2.0	0.5	2.5	0.6	0.7	0.2	2.5	0.6
2013-03-29	3.8	0.9	0.6	0.1	0.4	0.1	3.8	0.9
2013-03-30	5.3	1.3					5.3	1.3
2013-03-31	7.4	1.8	5.8	1.4	1.5	0.3	7.4	1.8

SECTION 3 • SPILL MANAGEMENT

AEM has developed a system of tracking spills on-site. Table 3.1 summarizes the AEM spill reports for the month. Eight (8) spills occurred on site and one (1) was reported to the GN spill hotline. AEM contained and cleaned up all the spills.

Table 3-1: Summary of AEM Internal Spill Reports

Date of Spill	Hazardous Material	Quantity (L/Kg)	Location	Cause of spill	Clean-up action taken	Reported to Spill Hot Line
2013-03-07	Power steering	1 L	Contractor Mine Meadowbank; Vault road Km 4	Pick up went off road and hit a rock	Cleaned-up contaminated soil	No
2013-03-08	Hydraulic oil	80 L	Open Pit Meadowbank. Bay Goose pit 5102530	Broken hydraulic line	Contained the spill and brought the material to the landfarm	No
2013-03-08	Hydraulic oil	50 L	Open Pit Meadowbank, Bay Goose Pit	Broken pilot line	Contained the spill picked up contaminated soil and brought it to the landfarm	No
2013-03-09	Hydraulic oil	5 L	Meadowbank; low grade stock pile	Hydraulic hose broke on the Tamrock drill	Placed absorbant pads on the ground upon noticing the spill. Picked up absorbant pads and placed inside quatrex bag, shovelled contaminated snow and placed inside yellow roll-off bin by the incinerator	No
2013-03-13	Oil and grease mix with water	60 L	Maintenance Meadowbank: White Coverall	The RH 120 ignite and the ERT extinguished the fire with water, oil and grease were released and mix with the water. About 60 L went out of the coverall	Got frozen, shovelled and brought to the landfarm	No
2013-03-14	Compressor oil	25 L	Drill and Blast Mine Meadowbank; Pit A Pattern 5088320	Mechanical troubles.	Drill was shut down immediately and spill absorb pads were laid down on spill. Spill was picked up and brought to incinerator. Drill will be assessed and brought to the shop.	No

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2013-03-24	Engine oil	20 L	Procurement and warehouse Meadowbank; Laydown #1	Zoom Boom Fork went thru the tote inside c-can.	Put spill pad in seacan and we put snow also in the seacan Oil on floor of c-can, left-over from tote, spill pads and contaminated snow were disposed in 205 liters drums to be handled with hazmat.	No
2013-03-28	Cyanide	22 KG	Operation Process Plant Meadowbank	Reagent operator (Louis P.Breton) open sea can of cyanide and it's have some 2x6 hood in front of cyanide box, Louis take the zoom boom and try to remove this 2x6 but he hit one cyanide box. The box rip and 50lbs of solid cyanide briquettes drop outside of the sea can	We talk with the operator to change the procedure to remove the wood 2x6 in front of the cyanide box	Yes