Richard Dwyer

From: Rachel Gould [RGould@agnico-eagle.com]
Sent: Tuesday, May 31, 2011 11:36 AM
To: Richard Dwyer (licensingadmin@nunavutwaterboard.org)
Cc: David Abernethy (David.Abernethy@inac-ainc.gc.ca); Ian Rumbolt (ian.rumbolt@inac-ainc.gc.ca); Stephane Robert; Stephen Hartman (shartman@kivalliqinuit.ca); Luis Gerardo Manzo (lmanzo@kivalliqinuit.ca); vtattuinee@kivalliqinuit.ca; Jeff Tulugak (jtulugak@kivalliqinuit.ca); Simeon Mikkungwak (landsbaker@kivalliqinuit.ca); Jim Rogers (jim.rogers@inac-ainc.gc.ca)
Subject: 2AM-MEA0815 April 2011 Monitoring Summary Report
Attachments: 2AM-MEA0815 Apr 2011 Monitoring Summary Report.pdf

Dear Richard

As required by NWB Water license 2AM-MEA0815 Part I Item 25, please find the April 2011 Monitoring Summary Report for the Meadowbank Gold Project attached.

Should you have any questions regarding this submission, please contact me via email at rgould@agnico-eagle.com, or contact Stephane Robert at 819-763-0229 or via email at stephane.robert@agnico-eagle.com.

Regards

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AGNICO-EAGLE

MEADOWBANK DIVISION

Monitoring Program Summary Report

April 2011

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 activity includes: water usage, sewage treatment plant discharge water quality and dewatering monitoring.

Additionally, a summary of the AEM internal spill reporting for the month is included.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Freshwater usage from January to April 2011 is summarized in Table 2.1 below. A few minor revisions were made to the data presented in the January to March 2011 monthly monitoring reports.

Freshwater usage for the month of April totals 86,591 m^3. The consumption of fresh water for mine and mill operations (including production drills, batch plant and dust control) was 80,930 m^3 and the consumption of reclaim water in the mill was 174,706 m^3.

Table 2-1: Freshwater Usage (m^3)

	January	February	March	April
Camp	3,040	2,861	2,303	3,060
Mine & Mill Operations	67,852	70,324	85,312	80,930
Emulsion Plant	0	0	0	162
Water Truck	633	202	186	2,439
Total	**71,525**	**73,387**	**87,801**	**86,591**

2.2 SEWAGE TREATMENT PLANT MONITORING

Four water samples were taken at the effluent of the sewage treatment plants (STP) in April. The results showed the system is working well. Table 2.2 presents the April monitoring results.

Over the past several months, the pH of the STP discharge has been lower (more acidic) than normal operating conditions. We attribute the decrease in pH to the decrease in people at camp. Throughout the winter months we had less volume going to the STP which resulted in a longer residence time in the plant. This led to an increase in nitrification, the consumption of alkalinity, and thus a decrease in pH. Since April, the people in camp have increased significantly, and the pH of the STP discharge has increased slowly during the month.

Table 2-2: STP Effluent Results

Date	Units	4-Apr-11	11-Apr-11	18-Apr-11	26-Apr-11
Ammonia	mg/L	17.9	15.1	25.4	15.3
BOD-5	mg/L	2	3	3	5
COD (mg/L)	mg/L	34	51	81	33
Total Suspended Solids	mg/L	5	2	12	6
Nitrate-Nitrite	mg N/L	33.2	36.0	36.6	33.2
pH *	units	4.10	4.40	6.30	4.40
Total Phosphorus	mg/L	10.8	14.2	13.3	12.5
Fecal Coliform	UFC/100 mL	10	<2	134	16
Total Coliform	UFC/100 mL	20	4	400	100

2.3 DEWATERING OF SECOND PORTAGE ARM

Dewatering of the northwest arm of Second Portage Lake continued throughout the month. As of December 22, 2010, the discharge from WTP-02 has been redirected to WTP-01 prior to discharge. Consequently, only the discharge from WTP-01 is being monitored.

The pH and Aluminum concentrations at the outlet of the TSS water treatment plants were as follows:

- pH 24 hour minimum/maximum: 6.46/6.87 units (Limit is 6-9 units)
- Al 24 hour maximum concentration: 1.44 mg/L (Limit is 1.5 mg/L)

Table 2.3 summarizes the dewatering monitoring results for pH and Aluminum for the month.

The turbidity and Total Suspended Solids (TSS) concentrations at the outlet of the TSS water treatment plants were as follows:

- NTU 24 hour mean maximum concentration: 2.2 NTU (Maximum Limit is 30 NTU)
- TSS 24 hour mean maximum concentration: 10 mg/L (Maximum Limit is 22.5 mg/L)
- NTU 30 days mean maximum concentration: 1.4 NTU (Maximum Limit is 15 NTU)
- TSS 30 days mean maximum concentration: 6.3 mg/L (Maximum Limit is 15 mg/L)

Table 2.4 summarizes the dewatering monitoring results for turbidity and TSS for the month.

Table 2-3: Dewatering Monitoring – pH and Al

Date	DD-WTP-01	
	pH	Total Al
	units	mg/L
4/1/2011	6.50	
4/2/2011	6.46	
4/3/2011	6.50	
4/4/2011	6.50	1.44
4/5/2011	6.59	
4/6/2011	6.69	
4/7/2011	6.55	
4/8/2011	6.48	
4/9/2011	6.80	
4/10/2011	6.48	
4/11/2011	6.56	
4/12/2011	6.87	1.02
4/13/2011	6.71	
4/14/2011	6.68	
4/15/2011	6.61	
4/16/2011	6.78	
4/17/2011	6.62	
4/18/2011	6.50	0.750
4/19/2011	6.67	
4/20/2011	6.64	
4/21/2011	6.57	
4/22/2011	6.77	
4/23/2011	6.74	
4/24/2011	6.73	
4/25/2011	6.75	
4/26/2011	6.76	0.481
4/27/2011	6.87	
4/28/2011	6.75	
4/29/2011	6.76	

Table 2-4: Dewatering Monitoring – TSS and Turbidity

Date	DD-WTP-01(Out)		DD-WTP-02(Out)		Both WTP Outlets			
	24-hour Mean	Lab TSS	24-hour Mean	Lab TSS	NTU 24-hour Mean	TSS 24-hour Mean	NTU 30-day Mean	TSS 30-day Mean
	NTU	mg/L	NTU	mg/L	NTU	mg/L	NTU	mg/L
2011-04-01	0.79	8	Not in operation		0.8	8	1.4	5.8
2011-04-02	0.71	9	Not in operation		0.7	9	1.3	5.9
2011-04-03	0.65	10	Not in operation		0.7	10	1.3	6.1
2011-04-04	1.41	9	Not in operation		1.4	9	1.3	6.2
2011-04-05	0.76	3	Not in operation		0.8	3	1.3	6.2
2011-04-06	0.86	4	Not in operation		0.9	4	1.3	6.2
2011-04-07	1.02	7	Not in operation		1.0	7	1.3	6.3
2011-04-08	1.05	4	Not in operation		1.1	4	1.3	6.2
2011-04-09	1.75	5	Not in operation		1.8	5	1.3	6.1
2011-04-10	1.14	2	Not in operation		1.1	2	1.3	5.9
2011-04-11	1.19	2	Not in operation		1.2	2	1.3	5.9
2011-04-12	0.81	1	Not in operation		0.8	1	1.3	5.8
2011-04-13	0.91	3	Not in operation		0.9	3	1.2	5.5
2011-04-14	0.92	2	Not in operation		0.9	2	1.2	5.3
2011-04-15	0.99	3	Not in operation		1.0	3	1.2	5.1
2011-04-16	0.80	5	Not in operation		0.8	5	1.2	5.0
2011-04-17	1.02	5	Not in operation		1.0	5	1.2	4.7
2011-04-18	0.70	4	Not in operation		0.7	4	1.1	4.4
2011-04-19	0.87	4	Not in operation		0.9	4	1.0	4.5
2011-04-20	1.06	5	Not in operation		1.1	5	1.0	4.5
2011-04-21	2.20	9	Not in operation		2.2	9	1.1	4.8
2011-04-22	0.59	1	Not in operation		0.6	1	1.1	4.8
2011-04-23	0.78	1	Not in operation		0.8	1	1.0	4.6
2011-04-24	0.50	1	Not in operation		0.5	1	1.1	4.5
2011-04-25	0.43	1	Not in operation		0.4	1	1.0	4.2
2011-04-26	0.78	1	Not in operation		0.8	1	1.0	4.1
2011-04-27	1.08	4	Not in operation		1.1	4	1.0	4.0
2011-04-28	0.54	2	Not in operation		0.5	2	1.0	4.0
2011-04-29	0.42	1	Not in operation		0.4	1	0.9	3.9
2011-04-30	Not in operation		Not in operation					

SECTION 3 • SPILL MANAGEMENT SUMMARY

AEM has developed a system of tracking spills on-site. Table 3.1 summarizes the AEM internal spill reports for the month. One spill was reported to the GN spill hotline.

Table 3-1: Summary of AEM Internal Spill Reports

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill Hot Line
2011-04-03	Oil	5 L	North side of Truck shop	Mechanical failure	Contaminated soil taken to hazardous materials storage area	N
2011-04-03	Fuel	75L	AWPAR km 100	A broken shaft on the skidder hit the fuel tank valve	Contaminated soil taken to hazardous materials storage area	N
2011-04-08	Hydraulic oil	100 L	Unknown	Hydraulic hose broke on 50 ton truck	Contaminated soil taken to Quarry 22	Y
2011-04-10	Drill hammer oil	8 L	South Portage	Dropped the pail while transferring from pick up to drill	Contaminated snow taken to snow cells	N
2011-04-16	Hydraulic oil	77 L	Waste rock storage facility	Hydraulic hose broke	Spill cleaned up with spill kit diapers; diapers disposed of in hazardous material storage area	N
2011-04-25	Anti-freeze	15 L	South Portage pit	Hose ruptured	Contaminated soil taken to Quarry 22	N
2011-04-25	Hydraulic oil	12 L	Air strip hill	Hose ruptured	Contaminated soil taken to hazardous materials storage area	N
2011-04-26	Hydraulic oil	3 L	Bay Goose dike	Hydraulic hose broke	Contaminated soil taken to hazardous materials storage area	N