

December 21, 2010

Via Email

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**Re: Water License 2AM-MEA0815 November Monitoring Program Summary Report**

As required by Water license 2AM-MEA0815 Part I Item 25, please find the November 2010 Monitoring Program Summary Report enclosed.

Should you have any questions regarding this submission, please contact me directly at 819-763-0229 or via email at [stephane.robert@agnico-eagle.com](mailto:stephane.robert@agnico-eagle.com).

Regards,



Stéphane Robert,  
Environment Superintendent

*Encl*

cc: Lou-Ann Cornacchio, INAC  
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## MEADOWBANK GOLD PROJECT

# **Monitoring Program Summary Report**

**November 2010**

Type A Water License 2AM-MEA0815

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## **SECTION 1 • BACKGROUND**

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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 of November 2010. 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 for the month totals 75,028 m<sup>3</sup> and is summarized in Table 2.1 below. The consumption of fresh water for the mill was 71,344 m<sup>3</sup> and the consumption of reclaim water was 156,498 m<sup>3</sup>.

**Table 2-1: November 2010 Freshwater Usage**

	Water usage (m <sup>3</sup> )
Camp	3146
Batch Plant	402
Mill & Dust control	71344
Emulsion Plant	136
<b>Total for the site</b>	<b>75,028</b>

### 2.2 SEWAGE TREATMENT PLANT MONITORING

Five water samples were taken at the effluent of the sewage treatment plants (STP). The results showed the two systems are working well.

**Table 2-2: November 2010 STP Effluent Results**

Parameter	01-Nov-10	08-Nov-10	15-Nov-10	22-Nov-10	29-Nov-10
NH3-NH4 (mg/L)	28.9	28.9	22.5	22.6	30.3
BOD-5 (mg/L)	2	3	2	2	5
COD (mg/L)	47	40	48	46	43
TSS (mg/L)	9	7	8	6	8
NO2-NO3 (mg N/L)	46.7	46.2	42.0	42.7	47.9
pH (mg/L)	3.75	3.63	3.82	3.88	3.65
P tot (mg P/L)	16.1	15.8	16.0	15.0	14.3
Fecal Coliform (UFC/100mL)	< 2	< 2	0	4	< 2
Total Coliform (UFC/100mL)	< 10	20	30	< 10	< 10
Atypical Colony (UFC/100mL)	< 10	< 10	10	< 10	< 10

## 2.3 DEWATERING OF SECOND PORTAGE ARM

Water quality monitoring for the Second Portage Arm dewatering project continued throughout November.

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

- pH 24 hour minimum/maximum: 6.30/6.67 units (Limit is 6-9 units)
- Al 24 hour maximum concentration: 0.93 mg/L (Limit is 1.5 mg/L)

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

**Table 2-3: November 2010 Dewatering Monitoring – pH and Al**

Date	DD-WTP-01		DD-WTP-02		Both WTP Outlets	
	pH	Total Al	pH	Total Al	pH 24-hour Mean	Al 24-hour Mean
	units	mg/L	units	mg/L	units	mg/L
11/1/2010	6.30	0.93			6.30	0.93
11/8/2010	6.45	0.65			6.45	0.65
11/15/2010	6.59	0.62			6.59	0.62
11/24/2010	6.55	0.68			6.55	0.68
11/29/2010	6.67				6.67	

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

- NTU 24 hour mean maximum concentration: 10.3 NTU (Maximum Limit is 30 NTU)
- TSS 24 hour mean maximum concentration: 4 mg/L (Maximum Limit is 22.5 mg/L)
- NTU 30 days mean concentration: 4.3 NTU (Maximum Limit is 15 NTU)
- TSS 30 days mean concentration: 3 mg/L (Maximum Limit is 15 mg/L)

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

Table 2-4: November 2010 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
2010-11-01	4.3	3	Not in operation		4.3	3	5.2	7
2010-11-02	10.3	*****	Not in operation		10.3		5.3	
2010-11-03	Not in operation		Not in operation					
2010-11-04	2.4	*****	Not in operation		2.4		5.2	
2010-11-05	5.0	2	Not in operation		5.0	2	5.2	7
2010-11-06	4.0	1	Not in operation		4.0	1	5.2	6
2010-11-07	3.6	4	Not in operation		3.6	4	5.1	6
2010-11-08	3.3	1	Not in operation		3.3	1	5.1	6
2010-11-09	3.3	1	Not in operation		3.3	1	5.0	5
2010-11-10	3.2	1	Not in operation		3.2	1	5.0	5
2010-11-11	3.7	1	Not in operation		3.7	1	4.9	5
2010-11-12	3.8	1	Not in operation		3.8	1	4.9	5
2010-11-13	4.2	2	Not in operation		4.2	2	4.9	4
2010-11-14	3.7	1	Not in operation		3.7	1	4.9	4
2010-11-15	2.7	1	Not in operation		2.7	1	4.8	3
2010-11-16	2.7	3	Not in operation		2.7	3	4.7	3
2010-11-17	Not in operation		Not in operation					
2010-11-18	Not in operation		Not in operation					
2010-11-19	Not in operation		Not in operation					
2010-11-20	Not in operation		Not in operation					
2010-11-21	Not in operation		Not in operation					
2010-11-22	Not in operation		Not in operation					
2010-11-23	Not in operation		Not in operation					
2010-11-24	4.3	2	Not in operation		4.3	2	4.7	3
2010-11-25	3.1	3	Not in operation		3.1	3	4.6	3
2010-11-26	Not in operation		Not in operation					
2010-11-27	Not in operation		Not in operation					
2010-11-28	3.6	4	Not in operation		3.6	4	4.5	3
2010-11-29	2.8	1	Not in operation		2.8	1	4.4	3
2010-11-30	2.9	2	Not in operation		2.9	2	4.3	3

### 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 November. No spills were reported to the GN spill hotline.

**Table 3-1: Summary of November 2010 AEM Internal Spill Reports**

Date of Spill	Hazardous Material	Quantity	Location	Cause of spill	Clean-up action taken	Reported to Spill HotLine
2010-11-08	Fuel	10 L	Emulsion plant	Leaking fuel line	Line fixed and contaminated snow taken to the snow cells	N
2010-11-12	Hydraulic oil	5-7 L	South pit	Mechanical pump failure	Absorbent pads placed under leak	N
2010-11-19	Hydraulic oil	20 L	Air strip hill	An oil filter came loose on a dozer	Contaminated soil taken to yellow bin at the Hazmat area; oil filter was tightened	N
2010-11-20	Hydraulic oil	30 L	South Portage pit	An oil filter came loose on a dozer	Contaminated soil was taken to yellow bin at Hazmat area; faulty 'O' ring replaced	N
2010-11-23	Hydraulic oil	30 L	Waste dump	Hydraulic oil hose broke on dozer #2	Contaminated soil was taken to yellow bin at Hazmat area	N
Unknown	Engine oil	30 L	Waste rock	RH-40 mechanical failure	Contaminated snow taken to the snow cells	N
Unknown	Hydraulic oil	20 L	Truck Shop	Hydraulic oil line failure	Contaminated snow taken to the snow cells	N
Unknown	Grease	40 L	Heavy equipment parking	Unknown	Contaminated snow taken to the snow cells	N
Unknown	Fuel	10 L	TSS plant	Unknown	Contaminated soil cleaned up and taken to Quarry # 22	N