AGNICO EAGLE

MEADOWBANK DIVISION

Monitoring Program Summary Report

June 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, Vault Dewatering water quality 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 June 2013 is summarized in Table 2.1 below. Total freshwater used for the month was 231, 279 m^3. The yearly freshwater used is actually over the quantity prescribe of 700,000 m^3 by our licence. The total freshwater used to date is 1, 180, 867 m^3. The total amount of reclaim water used in the mill for June was 109, 504 m^3.

Agnico Eagle Mines (AEM) Meadowbank Division submitted, on April 23, 2013, a request to the Nunavut Water Board for an amendment to increase freshwater use rate at the Meadowbank Gold Project, Water License # 2AM-MEA0815. AEM is currently waiting for NWB's comments and/or amendment.

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

	June
Freshwater Storage Tank	231,088
Emulsion Plant	191
Water Truck	0
Total	**231,279**
Year to date total	**1,180,867**

2.2 SEWAGE TREATMENT PLANTS

One (1) effluent wastewater sample was taken from the onsite sewage treatment plants (STP's) in June.

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**	**11-June-13**
Ammonia	mg N/L	0.40
Ammonia-Ammonium	mg N/L	31.7
Total Kjeldahl Nitrogen	mg N/L	36.0
BOD-5	mg/L	14
COD	mg/L	64
Total Suspended Solids	mg/L	24
Nitrate	mg N/L	16.50
Nitrite	mg N/L	0.12

pH *	units	7.4
Fecal Coliform	UFC/100 mL	8
Total Coliform	UFC/100 mL	400

*Parameter measured by STP operators

Table 2.2.2: LJ-Mix Effluent Results

Parameters	Units	11-June-13
Ammonia	mg N/L	<0.05
Ammonia-Ammonium	mg N/L	9.6
Total Kjeldahl Nitrogen	mg N/L	16.0
BOD-5	mg/L	20
COD	mg/L	90
Total Suspended Solids	mg/L	36
Nitrate	mg N/L	22.40
Nitrite	mg N/L	0.98
pH *	units	5.7
Fecal Coliform	UFC/100 mL	164
Total Coliform	UFC/100 mL	3000

*Parameter measured by STP operators

2.3 PORTAGE ATTENUATION POND EFFLUENT

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

2.4 NON CONTACT WATER

In June, there was water discharged through the non-contact water diversion ditches. Portage Area East diversion ditch (ST-5) results are shown in Table 2.4.1 below and Portage Area West diversion ditch (ST-6) results are shown in Table 2.4.2. You will find in Appendix 1 a figure showing the location of these points.

TSS results didn't exceed the maximum average concentration (15 mg/L) and maximum allowable grab sample concentration (30 mg/L) permitted by the Water License, Part F, Item 4. Furthermore, to comply with Water License Part D item 22, sediment barriers were in place throughout the month of June and daily visual inspections were conducted to prevent entry of sediments into the receiving environment.

Table 2.4.1: Portage Area East Diversion Ditch (ST-5) Results

Parameters	Units	24-June-13
Total Suspended Solids	mg/l	6

Table 2.4.2: Portage Area West Diversion Ditch (ST-6) Results

Parameters	Units	24-June-13
Total Suspended Solids	mg/l	2

2.5 VAULT DEWATERING

Vault Lake Dewatering began on June 27th. A total of 44,615 m^3 of water was release thru a diffusor into the receiving environment (Wally Lake). You will find in Appendix 2 a figure showing a general Vault layout.

As per Water License Part D item 16, the effluent from Vault Lake pit dewatering shall not exceed the following quality limits:

Parameter	Maximum Monthly Mean	Short Term Maximum
Total Suspended Solids	15.0 mg/L	22.5 mg/L
Turbidity	15 NTU	30 NTU
pH	6.0 to 9.0	6.0 to 9.0
Total Aluminium	1.5 mg/L	3.0 mg/L

The pH and Aluminum concentrations at the water intake pump were as follows:

- pH 24 hour maximum: 8.57 (Limit is 6-9 units)
- Al 24 hour maximum concentration: 0.068 mg/L (Limit is 3.0 mg/L)
- Al maximum monthly mean: 0.068 mg/L (Limit is 1.5 mg/L)

The turbidity and Total Suspended Solids (TSS) concentrations at the water intake pump were as follows:

- NTU 24 hour mean maximum concentration: 20.50 NTU (Maximum Limit is 30 NTU)
- TSS 24 hour mean maximum concentration: 0.4 mg/L (Maximum Limit is 22.5 mg/L)
- NTU 30 days mean maximum concentration: 8.49 NTU (Maximum Limit is 15 NTU)
- TSS 30 days mean maximum concentration: 0.93 mg/L (Maximum Limit is 15 mg/L)

Table 2.5.1 summarizes the dewatering monitoring results for pH, aluminum, turbidity and TSS for the month.

Table 2.5.1: Vault Lake Dewatering Monitoring

Date	ST-DD-3				License Requirements			
	Turbidity	Lab TSS	pH	Total Aluminium	NTU 30-day Maximum	TSS 30-day Maximum	pH 30-day Maximum	Al 30-day Maximum
	NTU	mg/L		mg/L	NTU	mg/L		mg/L
2013-06-27	20.50	1.00						
2013-06-28	N/A	1.50	8.57	0.068				
2013-06-29	3.10	0.40						
2013-06-30	1.86	0.80			8.49	0.93	8.57	0.068

N/A: No measurement was taken as turbidity probe was broken

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. Eleven (11) 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
2013-06-06	Hydraulic oil	60	Goose pit parking	While removing a pump from the component, the remaining oil from the system spilled to the ground	When removing components, will ensure they are properly drained and place oil pans under equipment to catch draining oil	No
2013-06-06	Diesel	10	AWPAR Km 39 Switchback	Some fuel was left inside one of the four compartments which was not being used waiting for new valve to come in. 3 of the 4 compartments were used during transporting of diesel	Tanker has been removed from service on the AWPAR until it has been repaired	No
2013-06-06	Diesel	40	Sana garage yard	Compressor, stored inside c-can was leaking fuel. Some went on ground.	Leak was stopped.	No
2013-06-12	Antifreeze	2	Pushback pit	An air compressor caught fire. It created a small leak on the antifreeze system.	A bucket was placed under the air compressor to contain the leak. The antifreeze collected was disposed of properly.	No
2013-06-14	Brake fluid	2	Environment office	When brake fluid was refilled on mule, fluid came out by broken line at front left wheel.	Mule was brought to maintenance for repair.	No
2013-06-15	Diesel	210	Camp genset tank #1	Workers in the area noticed that fuel was overflowing from top of tank and notified their supervisor. Environment and Power Plant staff went to access situation. The overflow is due to expansion caused by temperature.	The tank level will be lowered. Spill is contained in the tank pad soil. Once the tanks is emptied and lifted, the contaminated soil underneath the tank will be removed. It will be disposed of at our contaminated soil pad.	Yes

2013-06-16	Petroleum products	5	Camp Genset 2	A flange on the line between the main tank and Camp Gen 2 day tank was leaking.	The flange was tightened and the material on the ground was collected to estimate the amount of fuel spilled. The pipe will be changed in the near future. The pipe bent when it was hit with a loader over the winter.	No
2013-06-17	Fuel	10	Baker Lake Fuel Farm	Due to the warm weather, the fuel expansion caused the valve to leak.	A bucket was placed under the leaking valve. A work order to replace the gasket in the valve has been put through (W/O 820572).	No
2013-06-17	Grey Water/Sewage	94	Under Arctic Corridor leading to Service Building	A fitting was coming loose and causing pipe to leak.	Pipe was repaired	No
2013-06-27	Hydraulic oil	80	Pit B Blast #5053259	Hydraulic hose busted on Haul truck #2	Contaminated soil picked up with FGL loading equipment	No
2013-06-30	Heating oil	10	Laboratory next to Q SANA office	45 gallon drum lying on its side leaking through pump connection	Upon being advised, drum was put back standing up right. Contaminated soil was picked and brought to the yellow roll-off bin by the incinerator. Drum was removed from the area and placed inside Qamanittuaq SANA garage	No

Appendix 1
Meadowbank Sampling Location

DRAWING NO.

FORMAT ANSI E–PORTRAIT

East Diversion Ditch

West Diversion Ditch

ST-5

Vault Road

ST-16

ST-6

ST-S-2

Waste Rock Facility

Saddle Dam 1

ST-21

Tailings Reclaim Pond

Saddle Dam 2

Stormwater Dike

ST-14

ST-9

Portage Attenuation Pond

North Portage Pit

Third Portage Lake

AIRSTRIP WEST EXTENSION

ACTUAL AIRSTRIP

ST-17

ST-18

Central Dike

TPN

East Dike

STP

ST-19

ST-S-1

Stormawater Management Pond

Fresh Water Intake

MB-Fuel

Incinerator

South Portage Pit

Second Portage Lake

Bay-Goose Pit

ST-20

South Camp Island

Bay-Goose Dike

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GENERAL NOTES

TITLE	# DWG
REFERENCE DRAWINGS	

REV	DESCRIPTION	DATE	BY
1			
REVISIONS			

DRAWN BY	P.GAGNON
DATE	2013--06-13
CHECKED BY	
APPROVED BY	
PROJECT NO.	
DATE	

TITLE
AGNICO EAGLE – MEADOWBANK DIVISION

Meadowbank site Layout

SITE GEOTECHNICAL DRAWING

SCALE	FILE
N.T.S.	.DWG

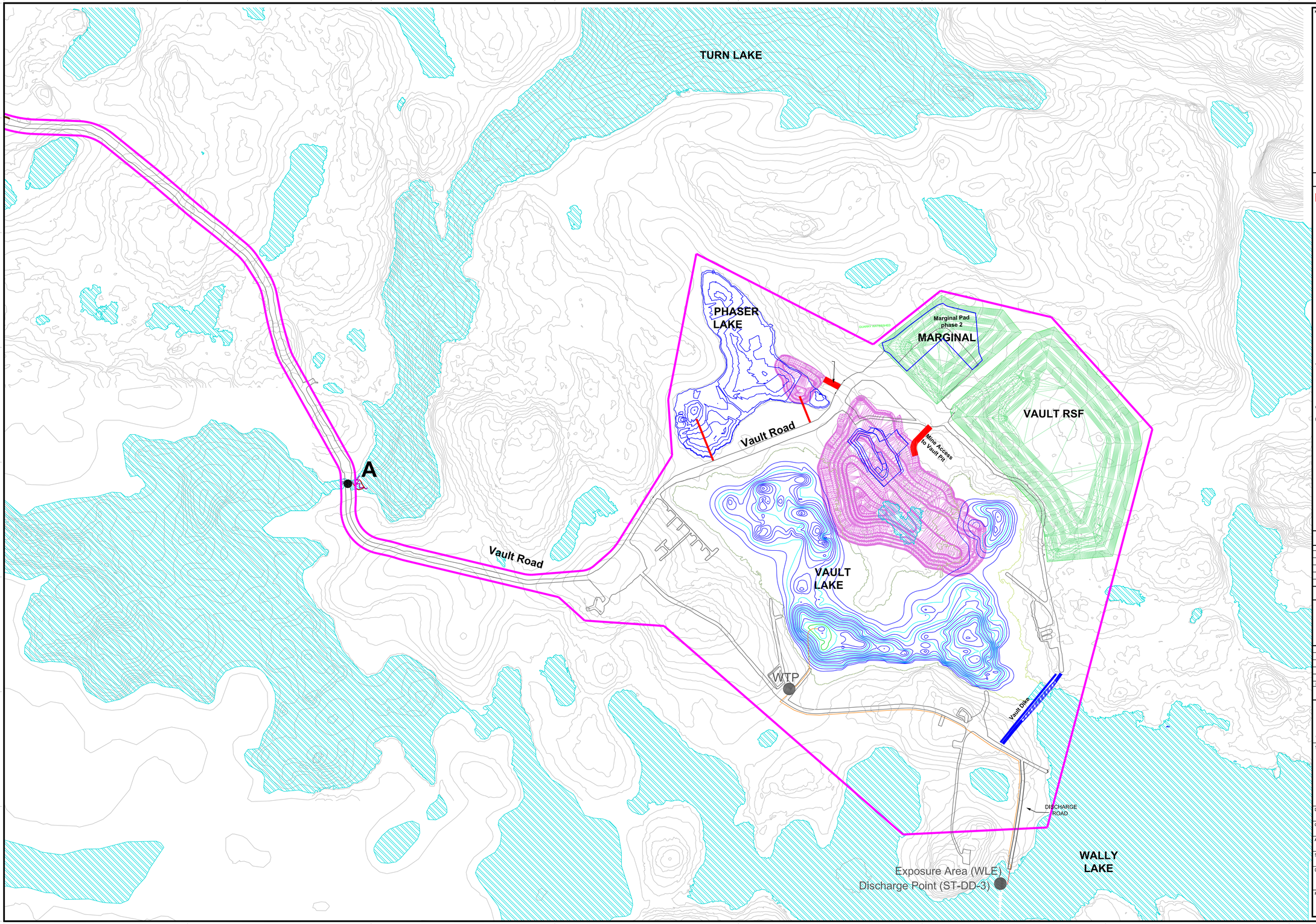
DRAWING NO.	REVISION	SHEET
		1 / 1

FILE NO. .DWG

Appendix 2
Vault Sampling Location

DRAWING NO.

FORMAT ARCHD–LANDSCAPE



KEY PLAN

GENERAL NOTES

NOT FOR CONSTRUCTION.

This map is for information purpose.

The coordinate system in this map is in UTM, which does not have to be confused with the coordinate system used in Gemcom for the Vault Project.

TITLE	# DWG

REFERENCE DRAWINGS

REV.	DATE	DESCRIPTION	BY	APP.	CLIENT

REVISIONS

AGNICO-EAGLE
MEADOWBANK DIVISION

TITLE

AGNICO–EAGLE – MEADOWBANK DIVISION
Vault Project

Vault Lake Dewatering
Phase 2

DRAWN BY	DATE
M. GROLEAU	25/04/2013
CHECKED BY	
APPROVED BY	
SCALE	DATE
DRAWING NO.	
PROJECT NO.	REVISION / SHEET
	2 / 5

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