



MEADOWBANK COMPLEX

Monitoring Program Summary Report

October 2023

Type A Water License 2AM-MEA1530

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SECTION 1 • BACKGROUND

On May 13, 2020, Agnico Eagle received the minister's approval for the Water License 2AM-MEA1530 Amendment No.4. This amendment was required to authorize changes to the previously approved uses of water and deposit of wastes needed to reflect the expansion of the Whale Tail Mine.

As required under Part I, Item 21 of Type A Water License 2AM-MEA1530 (Amendment No.4), this report documents the water management and monitoring activities at the mine site for the month. This includes water usage, Vault Attenuation Pond and Phaser Attenuation Pond discharge and water quality, East Dike Seepage discharge water quality, RSF Seepage, Central Dike Seepage, Assay Road Seepage, sewage treatment plant discharge water quality (which is directed to the onsite storm water management pond), an update to the In-Pit disposal and follow up to the AWAR spill at Km 87.

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

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Freshwater usage for the month is summarized in Table 2.1 below.

Table 2.1: Freshwater Usage (m³)

Water Location	Source Lake	January	February	March
Camp	Third Portage Lake	3,288	2,944	2,980
Mill (freshwater tank)	Third Portage Lake	50,174	55,874	62,407
Emulsion plant	Unnamed Lake	0	0	0
Total Freshwater Usage (m³)		53,462	58,818	65,387
Ore Water (m³)	Ore	5,853	5,146	5,195
Reclaim Water Usage (m³)	Tailings Pond	294,828	250,824	285,244

Water Location	Source Lake	April	May	June
Camp	Third Portage Lake	3,131	3,024	3,003
Mill (freshwater tank)	Third Portage Lake	60,918	48,147	85,133
Emulsion plant	Unnamed Lake	0	0	0
Total Freshwater Usage (m³)		64,049	51,171	88,136
Ore Water (m³)	Ore	4,478	2,510	5,418
Reclaim Water Usage (m³)	Tailings Pond	290,710	268,126	306,018

Water Location	Source Lake	July	August	September
Camp	Third Portage Lake	3,066	2,983	2,902
Mill (freshwater tank)	Third Portage Lake	91,305	115,116	81,899
Emulsion plant	Unnamed Lake	0	0	0
Total Freshwater Usage (m³)		94,371	118,099	84,801
Ore Water (m³)	Ore	3,483	3,279	3,829
Reclaim Water Usage (m³)	Tailings Pond	313,608	294,203	301,079

Water Location	Source Lake	October	Total
Camp	Third Portage Lake	2,856	30,177
Mill (freshwater tank)	Third Portage Lake	65,214	716,187
Emulsion plant	Unnamed Lake	0	0
Total Freshwater Usage (m³)		68,070	746,364
Ore Water (m³)	Ore	3,317	42,508
Reclaim Water Usage (m³)	Tailings Pond	280,365	2,885,005

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In October, a total of 2,563 m³ of water was pumped to Portage Pit from the ST-16 sump. Of that amount, 1,256 m³ was transferred from WEP1 sump and 414 m³ from WEP2 sump to the ST-16 sump.

Agnico Eagle completed inspections at the Portage and Vault RSFs, no non-conformities were found during the month.

2.3 CENTRAL DIKE SEEPAGE

In October, 84,125 m³ of water was pumped from ST-S-5 sump to Portage Pits.

Sampling was conducted minimally on a monthly basis at ST-S-5 as per the requirements of the NWB Water License.

Visual inspections are completed monthly, by the Environment Department, as well as daily monitoring of piezometric values.

2.4 ASSAY ROAD SEEPAGE

In October, no water was pumped from the mill trench back to the mill. Agnico Eagle completed inspections and no non-conformities were found during the month.

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL

The landfill was inspected weekly, and no seepage or runoff was observed.

2.6 SEWAGE TREATMENT PLANT

One (1) effluent wastewater sample was collected at the onsite sewage treatment plant (STP) in October.

The Seprotech STP results are shown in Table 2.6.1 below; the LJ-Mix STP results are shown in Table 2.6.2. The effluent from the STP is discharged to the Stormwater Management pond.

In October, 25,790 m³ was pumped from the Stormwater Management pond to Portage Pits.

Table 2.6.1: Seprotech Effluent Results

Parameters	Units	October 2, 2023
Unionized Ammonia (NH ₃)	mg N/L	0.18
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	51
Total Kjeldahl Nitrogen	mg N/L	53
BOD-5	mg/L	7
COD	mg/L	53

Total Suspended Solids	mg/L	7
Nitrate	mg N/L	2.49
Nitrite	mg N/L	1.21
pH*	Units	6.90
Fecal Coliform	UFC/100 mL	80
Total Coliform	UFC/100 mL	2,000

*Parameter measured by STP operators

Table 2.6.2: LJ-Mix Effluent Results

Parameters	Units	October 2, 2023
Unionized Ammonia (NH ₃)	mg N/L	0.048
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	21
Total Kjeldahl Nitrogen	mg N/L	31
BOD-5	mg/L	4
COD	mg/L	38
Total Suspended Solids	mg/L	6
Nitrate	mg N/L	30.7
Nitrite	mg N/L	0.040
pH*	Units	6.70
Fecal Coliform	UFC/100 mL	560
Total Coliform	UFC/100 mL	6,000

*Parameter measured by STP operators

2.7 VAULT ATTENUATION POND EFFLUENT

No discharge has occurred from the Vault Attenuation Pond since October 9, 2017.

2.8 PHASER ATTENUATION POND

No water was pumped from the Phaser Attenuation Pond during the month.

No water was transferred from BB Phaser Pit sumps to the Phaser Attenuation Pond during the month.

2.9 EAST DIKE SEEPAGE EFFLUENT

No water was discharged from the East Dike to Second Portage Lake during the month. In October, water from the East Dike was discharged into Portage Pits.

2.10 NON-CONTACT WATER

In October, Agnico Eagle completed inspections at Portage Area East diversion ditch (ST-5) and West diversion ditch (ST-6). Portage Area East (ST-5) and West diversion ditches (ST-6) water quality results are shown in Tables 2.10.1 and 2.10.2, respectively.

TSS results for both stations did not exceed the maximum allowable grab sample concentration (30 mg/L) permitted by the Water License, Part F, Item 7. Both stations did not exceed the maximum average concentration (15 mg/L).

Table 2.10.1: Portage Area East Diversion Ditch (ST-5) Results

Parameter	Units	October 2, 2023
Total Suspended Solids (TSS)	mg/L	1

Table 2.10.2: Portage Area West Diversion Ditch (ST-6) Results

Parameter	Units	October 2, 2023
Total Suspended Solids (TSS)	mg/L	2

2.11 IN-PIT DISPOSAL

Tailings were disposed of in Portage Pits and reclaim water was taken from Portage Pits for the month.

SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2023 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for October.

Two (2) spills occurred on site during the month with zero being reported to regulators. Spills were contained and cleaned, contaminated material was disposed to the appropriate area, and the clean-up actions were monitored closely by the Environment Department.

Figure 3.1 2023 Reported and Non-Reported Spills

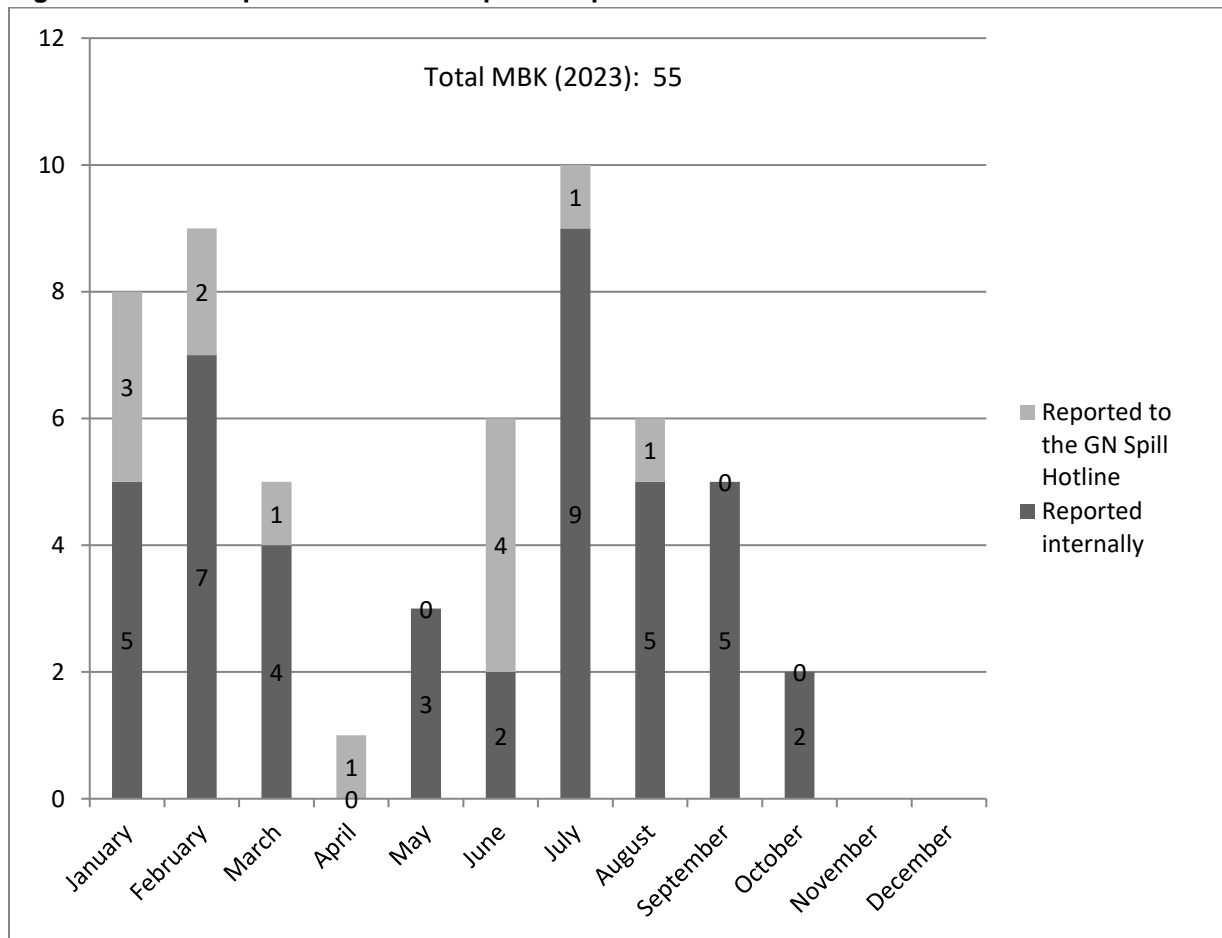


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, October 2023

Date of Spill	Hazardous Material	Qty	Units (L/Kg/m ³)	Location	Cause of Spill	Clean-up action taken
10/03/2023	Diesel	40	L	Meadowbank Fuel Farm	Mechanical Failure	Contaminated soil was collected and brought to a yellow bin for disposal at Meadowbank Landfarm
10/20/2023	Diesel	5	L	Baker Lake Fuel Farm	Mechanical Failure	Contaminated soil was collected and brought to the Meadowbank Landfarm

3.1 KM87 SPILL FOLLOW UP

In October, Agnico Eagle completed inspections at KM87 spill areas. A total of 3875 m³ was pumped from the collection sump and brought to the Stormwater management pond. Sampling was collected downstream of the collection sump at sampling station ST-44. Water quality results are shown in Table 3.2.

Table 3.2: KM87 (ST-44) Results

Parameters	Unit	10/02/2023	10/15/2023	10/22/2023
pH	pH units	6.87	8.02	6.49
TSS	mg/L	3	2	5
Total oil and grease	mg/L	1	0.90	<0.50
Benzene	mg/L	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	<0.00020	<0.00020	<0.00020
F2 (C10-C16)	mg/L	< 0.1	< 0.1	< 0.1
F3 (C16-C34)	mg/L	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	< 0.2	< 0.2	< 0.2
Petroleum Hydrocarbons F (C10-C50)	mg/L	0.25	<0.2	<0.2