



MEADOWBANK DIVISION

Monitoring Program Summary Report

December 2021

Type A Water License 2AM-MEA1530

Table of Contents

SECTION 1 • BACKGROUND 3

SECTION 2 • WATER MANAGEMENT 4

2.1 WATER USAGE4

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE4

2.3 CENTRAL DIKE SEEPAGE4

2.4 ASSAY ROAD SEEPAGE4

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL.....5

2.6 SEWAGE TREATMENT PLANT5

2.7 VAULT ATTENUATION POND EFFLUENT6

2.8 PHASER ATTENUATION POND6

2.9 EAST DIKE SEEPAGE EFFLUENT.....6

2.10 NON CONTACT WATER7

2.11 IN-PIT DISPOSAL7

SECTION 3 • SPILL MANAGEMENT 8

SECTION 1 • BACKGROUND

On May 13, 2020, Agnico 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 Pit Project.

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) and an update to the In-Pit disposal.

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

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Fresh and reclaim water usage for the month is summarized in Table 2.1 below.

Table 2.1: Freshwater Usage (m³)

Water Location	Source Lake	Jan	Feb	March	April	May	June
Camp	Third Portage Lake	2,639	2,334	2,376	2,297	2,536	2,408
Mill (freshwater tank)	Third Portage Lake	125,901	87,438	87,445	78,643	98,397	81,913
Emulsion plant	Unnamed Lake	104	90	127	118	133	64
Total Freshwater Usage (m³)		128,644	89,862	89,948	81,058	101,066	84,385
Ore Water (m³)	Ore	4,408	3,310	3,684	2,416	3,310	3,561
Reclaim Water Usage (m³)	Tailings Pond	237,647	205,445	277,684	171,821	209,538	237,348

Water Location	Source Lake	July	Aug	Sept	Oct	Nov	Dec	Total
Camp	Third Portage Lake	2,665	2,721	2,845	2,989	2,942	2,648	31,400
Mill (freshwater tank)	Third Portage Lake	120,687	104,144	93,228	110,522	54,692	39,487	1,082,497
Emulsion plant	Unnamed Lake	115	124	165	130	106	93.5	1,371
Total Freshwater Usage (m³)		123,467	106,989	96,239	113,641	57,740	42,228	1,115,268
Ore Water (m³)	Ore	3,310	4,064	4,530	3,424	3,695	3,310	43,022
Reclaim Water Usage (m³)	Tailings Pond	194,844	246,887	255,378	196,739	291,247	268,664	2,793,242

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In December, no water was pumped back to the North Cell TSF from the ST-16 sump. No sampling was completed at WEP1 (Station ST-30) and WEP2 (Station ST-31) during the month as they were frozen.

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

2.3 CENTRAL DIKE SEEPAGE

In December, 26,867 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 December, no water was pumped from the mill trench back to the mill due to frozen conditions. 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 December.

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 December, no water was pumped from the Stormwater Management pond to the tailings storage facility.

Table 2.6.1: Seprotech Effluent Results

Parameters	Units	December 6, 2021
Ammonia (NH ₃)	mg N/L	0.08
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	26.84
Total Kjeldahl Nitrogen	mg N/L	34
BOD-5	mg/L	11
COD	mg/L	63
Total Suspended Solids	mg/L	14
Nitrate	mg N/L	13.4
Nitrite	mg N/L	2.38
pH*	Units	6.90
Fecal Coliform	UFC/100 mL	30
Total Coliform	UFC/100 mL	2800

*Parameter measured by STP operators

Table 2.6.2: LJ-Mix Effluent Results

Parameters	Units	December 6, 2021
Ammonia (NH ₃)	mg N/L	<0.01
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	10.2
Total Kjeldahl Nitrogen	mg N/L	13
BOD-5	mg/L	5
COD	mg/L	56
Total Suspended Solids	mg/L	11
Nitrate	mg N/L	19.9
Nitrite	mg N/L	0.31
pH*	Units	5.70
Fecal Coliform	UFC/100 mL	2
Total Coliform	UFC/100 mL	200

*Parameter measured by STP operators

2.7 VAULT ATTENUATION POND EFFLUENT

No discharge has occurred from the Vault Attenuation Pond since October 9, 2017. There is currently no plan to restart the discharge in the future.

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

Discharge to Second Portage Lake began on December 9th and continued for the remainder of the month, a total of 7,645 m³ was discharged.

Four (4) weekly effluent samples were collected at ST-8 in December 2021. The TSS results did not exceed the maximum allowable grab sample concentration (30 mg/L) or the maximum monthly average concentration (15 mg/L) permitted by the Water License, Part F, Item 7. The TSS monitoring results for December are provided in Table 2.9.1 below.

Table 2.9.1: East Dike Seepage Results for TSS

Parameter	Unit	Sample Date				Monthly Average
		12/11/2021	12/13/2021	12/20/2021	12/28/2021	
Total Suspended Solids	mg/L	15	13	13	12	13.25

Monthly sampling pursuant to the Water License was also conducted at ST-8 in December. The results are shown in Table 2.9.2 below. There were no exceedances of MDMER criteria.

Table 2.9.2: December 2021 Monthly Monitoring Results

Parameter	Unit	Sample Date
		12/13/2021
pH*	-	8.36
Aluminum	mg/L	0.135
Sulphate	mg/L	7.7
Arsenic	mg/L	0.0010
Copper	mg/L	0.0010
Nickel	mg/L	0.0006
Lead	mg/L	<0.00017
Zinc	mg/L	<0.001
Radium 226	mg/L	**
Total Cyanide	mg/L	0.001
Turbidity*	NTU	3.47
Un-Ionized Ammonia	mg/L	<0.01

* Parameter measured by technician

** Pending lab analysis results

2.10 NON CONTACT WATER

Portage Area East diversion ditch (ST-5) and West diversion ditch (ST-6) were not sampled in December due to the diversion ditches being frozen. Sampling is conducted during open water conditions.

2.11 IN-PIT DISPOSAL

In-Pit tailings disposal occurred in Portage Pit E and reclaim water was taken from Portage Pit A for the month.

SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2021 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for December.

Five (5) spills occurred on site during the month with one (1) 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 2021 Reported and Non-Reported Spills

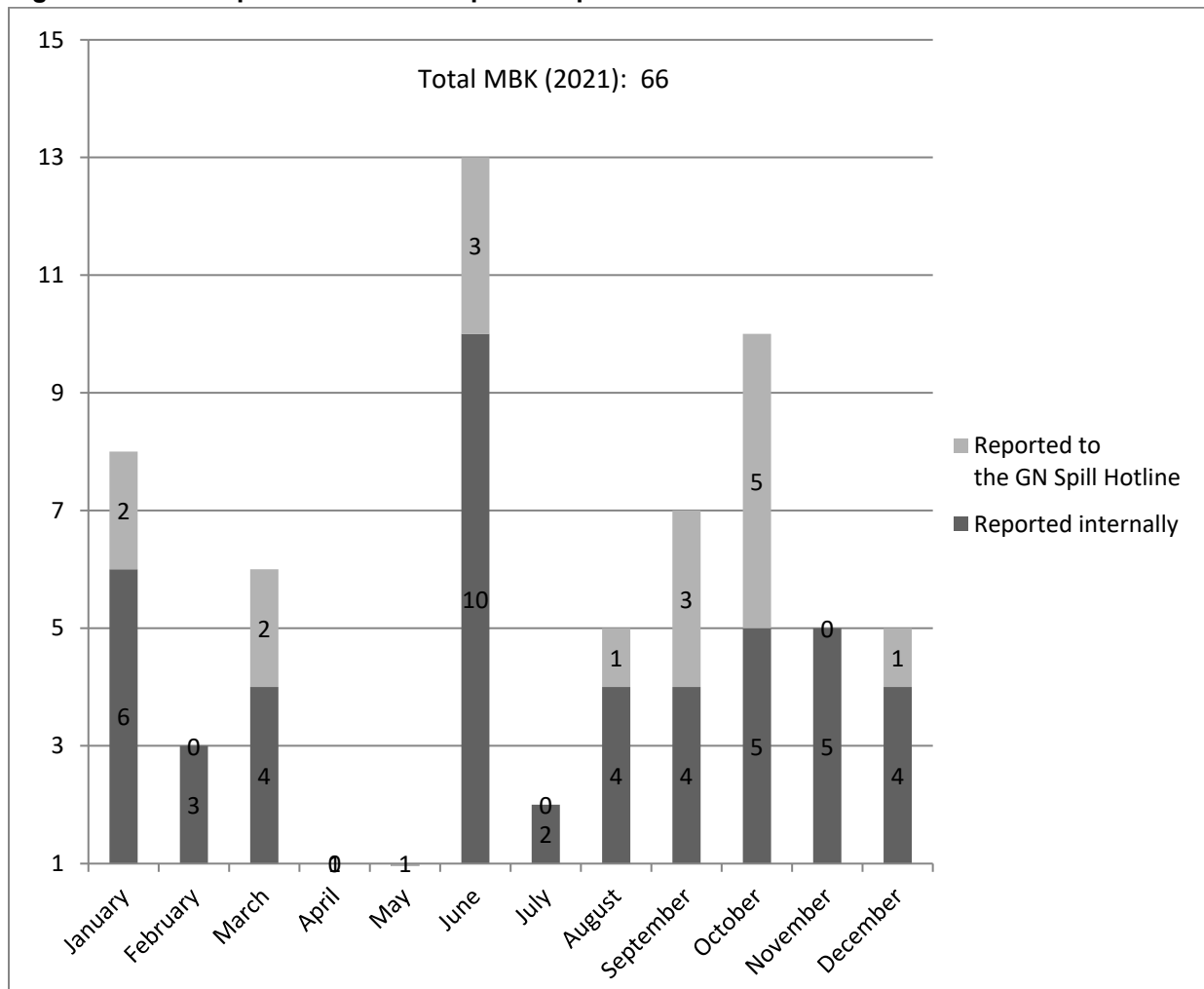


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, December 2021

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
12/4/2021	Diesel Fuel	50	L	HPGR	Equipment Failure	The spill was controlled and the contaminated material was collected by a loader and disposed of appropriately within a yellow bin.
12/6/2021	Coolant	50	L	Airstrip	Broken adaptor on coolant system	The engine was stopped and the spill was cleaned up. Contaminated material was adequately disposed of in the yellow bins.
12/7/2021	Blackwater	150	L	Baker Lake Camp	Overflow due to closed valve	A sewage spill was reported to the environment department by the Baker Lake Conservation Officer. The septic tank was drained immediately to stop the spill. Approximately 0.5 cubic metres of the accessible ice was chipped away and an excavator was sent to remove further material. Contaminated material will be collected and brought to the Meadowbank Landfarm for disposal.
12/11/2021	Diesel Fuel	25	L	North side of HPGR	Broken gas line	Absorbent pads were used to soak up spill. Contaminated material was collected and brought to the yellow bins for disposal.
12/19/2021	Diesel Fuel	5	L	Meadowbank Fuel Station	Leak from top loading arm	A plumber inspected the leak. Absorbent pads were put around the loading arm sections that were leaking. Contaminated material was adequately disposed of in a yellow bin.