



MEADOWBANK DIVISION

Monitoring Program Summary Report

August 2019

Type A Water License 2AM-MEA1526

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 SEEPAGE5

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

2.6 SEEPAGE AT PIT WALL AND PIT WALL FREEZE/THAW AND PERMAFROST AGGRADATION5

2.7 SEWAGE TREATMENT PLANT5

2.8 VAULT ATTENUATION POND EFFLUENT6

2.9 PHASER ATTENUATION POND6

2.10 EAST DIKE SEEPAGE EFFLUENT.....6

2.11 NON CONTACT WATER.....6

2.12 IN-PIT DISPOSAL7

SECTION 3 • SPILL MANAGEMENT 8

SECTION 1 • BACKGROUND

As required under Part I, Item 20 of Type A Water License 2AM-MEA1526 (Amendment No.3), this report documents the water management and monitoring activities at the mine site for the month. This includes water usage, Vault Attenuation Pond discharge water quality, Phaser Attenuation Pond, East Dike Seepage discharge water quality, RSF Seepage, Central Dike Seepage, Assay Road Seepage, and sewage treatment plant discharge water quality (which is directed to the onsite storm water management pond).

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 August is summarized in Table 2-1 below.

Table 2-1: Freshwater Usage (m³)

Water Location	Source Lake	Jan	Feb	March	April	May
Camp	Third Portage Lake	3 577	3 238	3 539	3 188	3 624
Mill (freshwater tank)	Third Portage Lake	214 981	182 096	112 326	142 405	147 851
Emulsion plant	No-name Lake	50	13	48	57	83
Total Freshwater Usage (m³)		218 608	185 347	115 913	145 650	151 558
Ore Water (m³)	Ore	4 610	3 045	2 727	4 539	6 203
Reclaim Water Usage (m³)	Tailings Pond	7 180	29 023	91 207	69 216	82 018

Water Location	Source Lake	June	July	Aug	Total
Camp	Third Portage Lake	3 418	3 194	3 197	26 975
Mill (freshwater tank)	Third Portage Lake	218 935	220 398	76 341	1 315 333
Emulsion plant	No-name Lake	16	64	52	382
Total Freshwater Usage (m³)		222 369	223 656	79 590	1 342 690
Ore Water (m³)	Ore	6 927	7 251	5 992	41 294
Reclaim Water Usage (m³)	Tailings Pond	17 693	41 309	157 510	495 156

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In August, 23,005 m³ of water was pumped back to the North Cell TSF from the ST-16 sump. Of that amount, 2,252 m³ and 3,346 m³ were transferred from respectively the WEP1 and WEP2 sumps to the ST-16 sump.

Agnico Eagle completed in August inspections at the Portage and Vault RSFs. No non conformity were found. Open water sampling at WEP1 (Station ST-30), WEP2 (Station ST-31) were also completed during the month.

2.3 CENTRAL DIKE SEEPAGE

In August, a total of 233,389 m³ of water was pumped from ST-S-5 sump to Portage Pit.

Sampling was conducted monthly at ST-S-5 and the South Cell TSF (ST-21) as per the requirements of the NWB water license.

Daily visual inspections were also completed by the Engineering Department.

2.4 ASSAY ROAD SEEPAGE

In August, 22,320 m³ of water was pumped back from the mill trench back to the mill. Inspections of the area were conducted during the month. Trench sampling and wells monitoring for CN downstream has been taken, when possible.

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL

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

2.6 SEEPAGE AT PIT WALL AND PIT WALL FREEZE/THAW AND PERMAFROST AGGRADATION

In August, ice wall continued to be observed into Vault Pit. There is no more mining activities in Vault Pit.

2.7 SEWAGE TREATMENT PLANT

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

The Seprotech STP results are shown in Table 2.7.1 below; the LJ-Mix STP results are shown in Table 2.7.2. The effluent is discharged to the Stormwater Management pond, which is pumped to the South Cell TSF during summer months. In August, no water was discharged from the Stormwater Management pond to the South Cell TSF.

Table 2.7.1: Seprotech Effluent Results

Parameters	Units	August 5, 2019
Ammonia (NH ₃)	mg N/L	0.87
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	63.1
Total Kjeldahl Nitrogen	mg N/L	64.4
BOD-5	mg/L	16
COD	mg/L	108
Total Suspended Solids	mg/L	23
Nitrate	mg N/L	2.77
Nitrite	mg N/L	0.67
pH*	Units	7.10
Fecal Coliform	UFC/100 mL	6,000
Total Coliform	UFC/100 mL	Too numerous to count

*Parameter measured by STP operators

Table 2.7.2: LJ-Mix Effluent Results

Parameters	Units	August 5, 2019
Ammonia (NH ₃)	mg N/L	0.21
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	47.1
Total Kjeldahl Nitrogen	mg N/L	49.8
BOD-5	mg/L	12

COD	mg/L	88
Total Suspended Solids	mg/L	21
Nitrate	mg N/L	10.9
Nitrite	mg N/L	1.89
pH*	Units	6.80
Fecal Coliform	UFC/100 mL	22,000
Total Coliform	UFC/100 mL	140,000

*Parameter measured by STP operators

2.8 VAULT ATTENUATION POND EFFLUENT

No discharge from Vault Attenuation Pond since October 9, 2017. There is currently no plan to restart the discharge in 2019.

2.9 PHASER ATTENUATION POND

No water was pumped out from the Phaser Attenuation Pond in August.

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

2.10 EAST DIKE SEEPAGE EFFLUENT

East Dike Seepage discharge was stopped on March 30, 2019 and diverted back to the Pit. There is currently no plan to restart the discharge to Second Portage Lake in 2019 as the water can accumulate in the pits without any operational constraint.

2.11 NON CONTACT WATER

In August, Agnico Eagle completed inspections at ST-5 and ST-6 as per the 2019 Freshet Action Plan. Portage Area East (ST-5) and West diversion ditches (ST-6) water quality results are shown in Tables 2.11.1 and 2.11.2, respectively.

TSS results for both stations did not 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 6.

Table 2.11.1: Portage Area East Diversion Ditch (ST-5) Results

Parameters	Units	August 5, 2019
Total Suspended Solids	mg N/L	4

Table 2.11.2: Portage Area West Diversion Ditch (ST-6) Results

Parameters	Units	August 5, 2019
Total Suspended Solids	mg N/L	14

2.12 IN-PIT DISPOSAL

Received on May 24, 2019 from NWB the Ministers Approval regarding the Amendment No.3 to Type A Water Licence No. 2AM-MEA1526 to authorize Water Uses and Waste Deposits associated with the In-Pit Tailings Disposal Proposal.

In-Pit disposal in Goose Pits started on July 5.

Submission on July 24 and 26 of management plans (Interim Closure and Reclamation Plan, Pore Water Quality, Groundwater, Waste and Tailings) required by Water License 2AM-MEA1526 Amendment – Reasons for Decision for the Meadowbank In-Pit Tailings disposal Section VI Part B. Received Regulator's comments on August 27. Agnico will provided responses by September 20, 2019.

SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2019 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for August.

All spills reported internally (1) were managed appropriately on site according to Agnico's spill contingency plan. Three (3) spills were reported to regulators in August. Spills were contained and cleaned, contaminated material was disposed to the appropriate area (landfarm, TSF if required), and the clean-up actions were monitored closely by the Environment Department. There was no off site impact to any watercourses.

Figure 3.1 2019 Reported and Non-Reported Spills

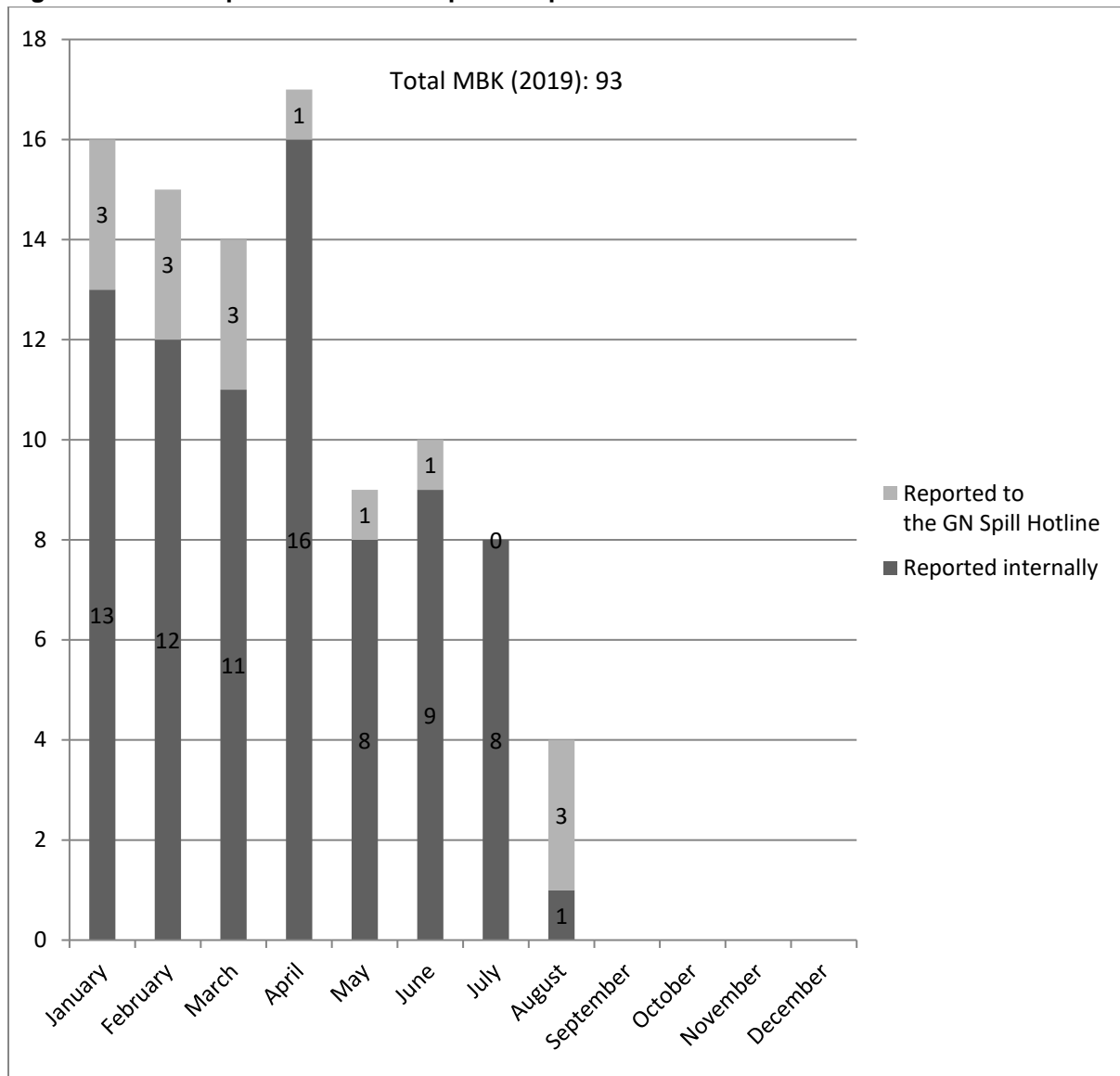


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, August 2019

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
August 10, 2019	Hydraulic Oil	150	L	Pit E	Hydraulic hose failure	Shut down equipment. Spill was contained and contaminated soil picked up and disposed of appropriately
August 11, 2019	Hydraulic Oil	25	L	Portage Pit E	Hydraulic hose failure on hammer	Machine was shutdown and hose was repaired. The spill fell on grade-A rocks so they will be send at the crusher.
August 26, 2019	Diesel	800	L	Old SANA	Hydraulic hose failure	Spill was contained and contaminated soil picked up and disposed of appropriately.
August 29, 2019	Glycol / Rust inhibitor	250	L	Portage Pit E	Genset slipped off the loader forks and tipped over on it's side causing diesel fuel to spill on the ground	Spill pads were immediately placed on the ground and the contaminated material was picked up and brought to the landfarm