



MEADOWBANK DIVISION

Monitoring Program Summary Report

December 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 SEEPAGE4

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.....7

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, sewage treatment plant discharge water quality (which is directed to the onsite storm water management pond) and In-Pit disposal update.

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 December 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	3 577	3 238	3 539	3 188	3 624	3 418
Mill (freshwater tank)	Third Portage Lake	214 981	182 096	112 326	142 405	147 851	218 935
Emulsion plant	Unnamed Lake	50	13	48	57	83	16
Total Freshwater Usage (m³)		218 608	185 347	115 913	145 650	151 558	222 369
Ore Water (m³)	Ore	4 610	3 045	2 727	4 539	6 203	6 927
Reclaim Water Usage (m³)	Tailings Pond	7 180	29 023	91 207	69 216	82 018	17 693

Water Location	Source Lake	July	Aug	Sept	Oct	Nov	Dec	Total
Camp	Third Portage Lake	3 194	3 197	3 193	3 236	3 363	3 455	40 222
Mill (freshwater tank)	Third Portage Lake	220 398	76 341	209 339	148 008	238 530	278 157	2 189 367
Emulsion plant	Unnamed Lake	64	52	78	97.1	67.4	65.5	691
Total Freshwater Usage (m³)		223 656	79 590	212 610	151 341	241 960	281 678	2 230 280
Ore Water (m³)	Ore	7 251	5 992	2 454	4 430	3 901	5 487	57 566
Reclaim Water Usage (m³)	Tailings Pond	41 309	157 510	6 706	105 372	1 042	159	608 435

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In December, no water was pumped back to the North Cell TSF from the ST-16 sump due to freezing conditions. No water was transferred from the WEP1 and WEP2 sumps to the ST-16 sump.

Agnico Eagle completed in December inspections at the Portage RSF. No non conformity were found. No open water sampling at WEP1 (Station ST-30) and WEP2 (Station ST-31) were also completed during the month.

2.3 CENTRAL DIKE SEEPAGE

In December, a total of 54,105 m³ of water was pumped from ST-S-5 sump to Tailings Storage Facility South Cell.

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 December, no of water was pumped back from the mill trench back to the mill. Inspections of the area were conducted during the month. No trench sampling and wells monitoring for CN downstream has been taken due to freezing conditions.

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 December, 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 December.

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 December, no water was discharged from the Stormwater Management pond to the South Cell TSF.

Table 2.7.1: Seprotech Effluent Results

Parameters	Units	December 17, 2019
Ammonia (NH ₃)	mg N/L	0.63
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	50.1
Total Kjeldahl Nitrogen	mg N/L	57.2
BOD-5	mg/L	13
COD	mg/L	68
Total Suspended Solids	mg/L	21
Nitrate	mg N/L	2.65
Nitrite	mg N/L	1.15
pH*	Units	7.50
Fecal Coliform	UFC/100 mL	40
Total Coliform	UFC/100 mL	<10,000

*Parameter measured by STP operators

Table 2.7.2: LJ-Mix Effluent Results

Parameters	Units	December 17, 2019
Ammonia (NH ₃)	mg N/L	0.04
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	13.2
Total Kjeldahl Nitrogen	mg N/L	17.4
BOD-5	mg/L	7
COD	mg/L	60
Total Suspended Solids	mg/L	21
Nitrate	mg N/L	13.7
Nitrite	mg N/L	1.64
pH*	Units	7.00

Fecal Coliform	UFC/100 mL	3,000
Total Coliform	UFC/100 mL	730,000

*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 December.

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

2.10 EAST DIKE SEEPAGE EFFLUENT

In December, the discharge to Second Portage Lake was ongoing. A total of 12,837 m³ of water was discharged during the month.

Five (5) weekly effluent samples were collected at ST-8 in December 2019. TSS results did not exceed the maximum allowable grab sample concentration (30 mg/L) and maximum average concentration (15 mg/L) permitted by Water License, Part F, Item 6. TSS monitoring results for December 2019 are shown in Table 2.10.1 below. There have been no exceedances of MDMER criteria.

Table 2.10.1: East Dike Seepage Results for TSS

Parameters	Units	Dec 2, 2019	Dec 9, 2019	Dec 16, 2019	Dec 23, 2019	Dec 28, 2019	Maximum Average Concentration
Total Suspended Solids	mg/L	4	1	4	1	1	2.2

Monthly regular sampling pursuant to the Water License was also conducted at this location. Results are shown in Table 2.10.2 below. There have been no exceedances of MDMER for those criteria.

Table 2.10.2: December 2019 Monthly Monitoring Results

Parameters	Units	Dec 16, 2019
pH*		7.50
Aluminum	mg/L	0.052
Sulphate	mg/L	7.1
Arsenic	mg/L	0.0017
Copper	mg/L	0.0015
Nickel	mg/L	<0.0005
Lead	mg/L	<0.0003
Zinc	mg/L	0.004
Radium 226	mg/L	<0.002
Total Cyanide	mg/L	<0.001

2.11 NON CONTACT WATER

In December, no monthly open water sampling conducted at Portage Area East (ST-5) and West diversion ditches (ST-6).

2.12 IN-PIT DISPOSAL

In-Pit disposal in Goose Pits was ongoing for December. No issues to report.

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 December.

All spills reported internally (6) were managed appropriately on site according to Agnico's spill contingency plan. One (1) spill was reported to regulators in December. 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

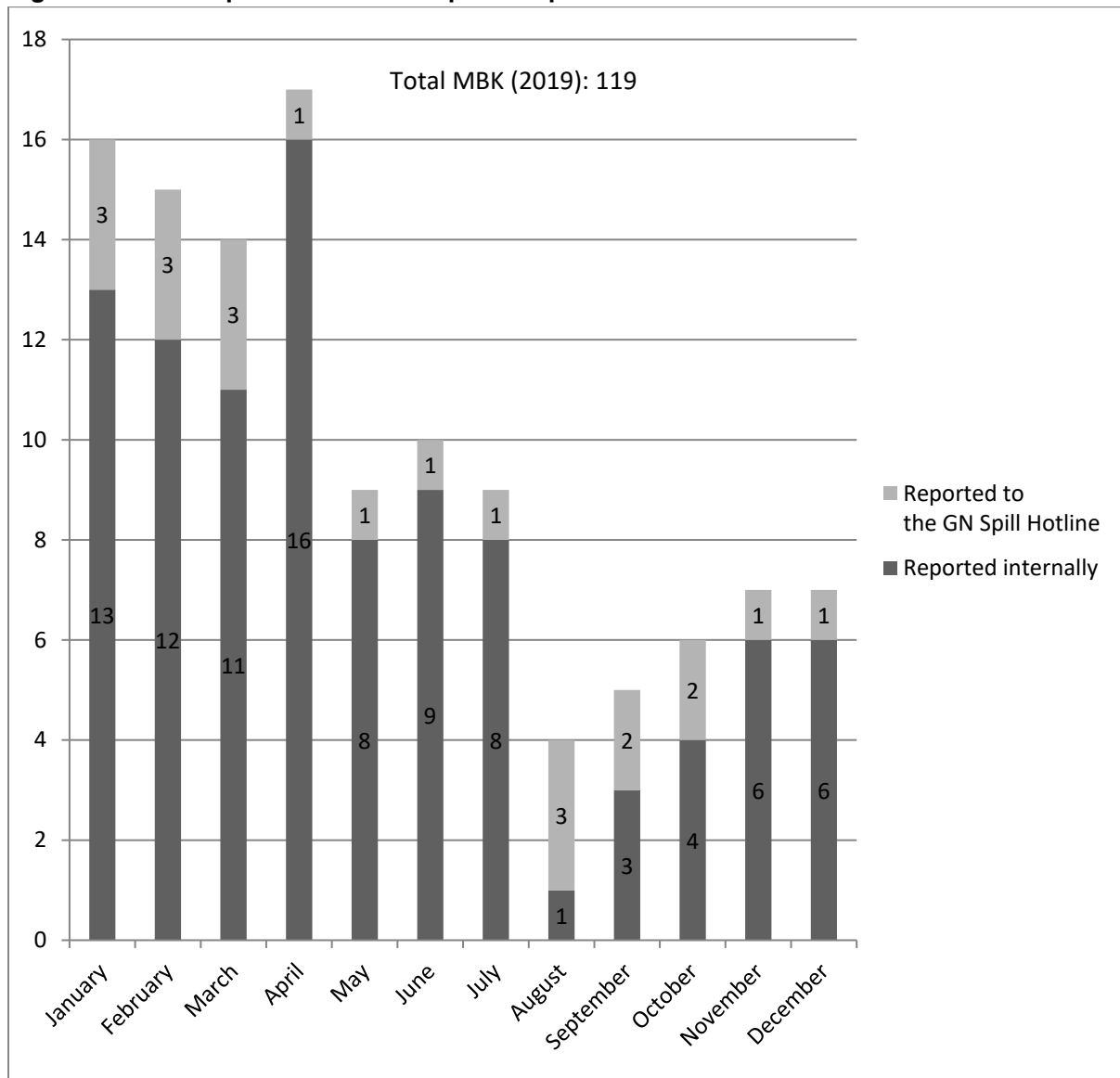


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, December 2019

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
December 12, 2019	Engine Oil	30	L	Downline maintenance shop	Engine failure	Clean-up the spill. Contaminated soil picked up and disposed of appropriately
December 12, 2019	Waste Water	2,000	L	Lift Station no.9	Broken pipe	The plumber cut the water from the office washrooms and sink to ensure the stoppage of the lead. The vacuum truck will be used to collect any additional pooling of waste water during the inspection. Due to below freezing conditions, most of the waste water has frozen and is not accessible to clean up because of the confined space under the building
December 14, 2019	Transmission Oil	50	L	Baker Lake spud barges	Mechanical issue on the dozer and transmission oil spilled on the ground	Stopped the dozer and install absorbent pads to contain the spill. Contaminated soil picked up and disposed of appropriately
December 15, 2019	Petroleum Product	5	L	Primary Crusher Stockpiles	Quick attach hose failure	Excavator stop working and hose was repaired. Contaminated material was picked-up and brought to the proper disposal area
December 24, 2019	Coolant	2	L	Environment Office	During pre-operation of vehicle, a small amount of coolant was observed on the ground under Pick-up	Equipment brought to Maintenance to repair the leak. Contaminated soil picked up and disposed of appropriately
December 25, 2019	Coolant	10	L	Vault Road	Coolant hose failure	Equipment was shutdown and repairs were made on the roadway. Contaminated soil picked up and disposed of appropriately

Type A Water License 2AM-MEA1526
Monitoring Program Summary Report

December 30, 2019	Glycol	20	L	Under Wing 7	Leak under Wing 7.	Closed the supply & return valve immediately.
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