

MEADOWBANK DIVISION

Monitoring Program Summary Report October 2019

Table of Contents

SECTION 1	BACKGROUND	3
SECTION 2	• WATER MANAGEMENT	4
2.1	WATER USAGE	4
2.2	WASTE ROCK STORAGE FACILITY SEEPAGE	4
2.3	CENTRAL DIKE SEEPAGE	4
2.4	Assay Road Seepage	_
2.5	SEEPAGE AND RUNOFF FROM THE LANDFILL	5
2.6	SEEPAGE AT PIT WALL AND PIT WALL FREEZE/THAW AND PERMAFROST AGGRADATION	_
2.7	SEWAGE TREATMENT PLANT	_
2.8	VAULT ATTENUATION POND EFFLUENT	6
2.9	PHASER ATTENUATION POND	E
	EAST DIKE SEEPAGE EFFLUENT	
2.11	Non Contact water	E
2.12	In-Pit Disposal	E
SECTION 3	SPILL MANAGEMENT	,

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 October 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	Total
Camp	Third Portage Lake		3 197	3 193	3 236	33 404
Mill (freshwater tank) Third Portage Lake		220 398	76 341	209 339	148 008	1 672 680
Emulsion plant	Unnamed Lake	64	52	78	97.1	557
Total Freshwater Usage (m³)		223 656	79 590	212 610	151 341	1 706 641
Ore Water (m³)	Ore	7 251	5 992	2 454	4 430	48 178
Reclaim Water Usage (m³)	Tailings Pond	41 309	157 510	6 706	105 372	607 234

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In October, 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 October inspections at the Portage and Vault RSFs. 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 October, a total of 138,549 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 October, 1,740 m³ 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 October, 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 October.

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

Table 2.7.1: Seprotech Effluent Results

Parameters	Units	October 8, 2019
Ammonia (NH ₃)	mg N/L	0.33
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	33.9
Total Kjeldahl Nitrogen	mg N/L	40.8
BOD-5	mg/L	7
COD	mg/L	56
Total Suspended Solids	mg/L	7
Nitrate	mg N/L	8.81
Nitrite	mg N/L	1.19
pH*	Units	7.00
Fecal Coliform	UFC/100 mL	100
Total Coliform	UFC/100 mL	<10,000

^{*}Parameter measured by STP operators

Table 2.7.2: LJ-Mix Effluent Results

Parameters	Units	October 8, 2019
Ammonia (NH₃)	mg N/L	0.16
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	26.4
Total Kjeldahl Nitrogen	mg N/L	37.3
BOD-5	mg/L	19

COD	mg/L	72	
Total Suspended Solids	mg/L	297	
Nitrate	mg N/L	8.16	
Nitrite	mg N/L	2.04	
pH*	Units	6.70	
Fecal Coliform	UFC/100 mL	12,000	
Total Coliform	UFC/100 mL	110,000	

^{*}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 October.

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. In October, there was no discharge to the environment as all the water was accumulated in the pits. However, with the freezing period observed in September, it was determined that water will need to be diverted back to Second Portage Lake to avoid health and safety risk in accessing the pits that were not initially expected. Discharge to environment should restart in November.

2.11 NON CONTACT WATER

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

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, 2019.

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 provided responses on September 20, 2019. NWB approved the above plans on October 21, 2019. Outstanding items will be corrected in the plans and resubmitted as part of the 2019 Annual Report.

SPILL MANAGEMENT SECTION 3 •

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 October.

All spills reported internally (4) were managed appropriately on site according to Agnico's spill contingency plan. One (1) spill was reported to regulators in October. 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.

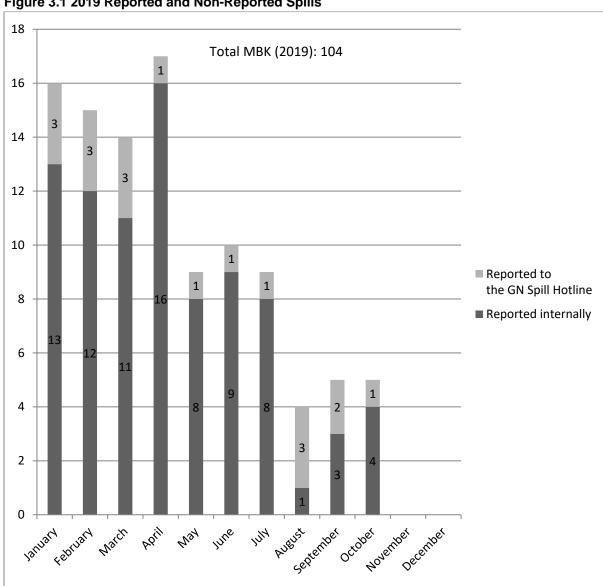


Figure 3.1 2019 Reported and Non-Reported Spills

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

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
October 6, 2019	Hydraulic Oil	10	L	Portage Pit E-5	Hydraulic hose failure	Mechanic called for repairs. Contaminated soil picked up and disposed of appropriately.
October 7, 2019	Hydraulic Oil	2	L	Pushback Parking	Leak on the back of the dozer	Mechanic called for repairs. Contaminated soil picked up and disposed of appropriately.
October 19, 2019	Transmission Oil	150	L	Emulsion Plant	While transporting oil cube in yard with skid steer discharge spout on cube failed	Oil tote was flipped to have the spout on top. Contaminated snow was scrapped with a loader and disposed of adequately.
October 22, 2019	Coolant	50	L	Winter Parking	Coolant hose failure	Pinched off blown coolant line. Contaminated soil picked up and disposed of appropriately.
October 24, 2019	Hydraulic Oil	15	L	Mine OPS Parking	Hydraulic hose failure	Failure reported to maintenance department. Contaminated soil picked up and disposed of appropriately.