



MEADOWBANK COMPLEX

Monitoring Program Summary Report

April 2022

Type A Water License 2AM-MEA1530

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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 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	Total
Camp	Third Portage Lake	2,500	2,859	2,954	3,071	11,384
Mill (freshwater tank)	Third Portage Lake	49,833	210,782	137,225	56,862	454,702
Emulsion plant	Unnamed Lake	48	14	89	64	215
Total Freshwater Usage (m³)		52,381	213,655	140,268	59,997	466,300
Ore Water (m³)	Ore	1,927	3,310	4,302	4,572	14,111
Reclaim Water Usage (m³)	Tailings Pond	266,541	72,375	214,517	249,495	802,928

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In April, no water was pumped back to the North Cell TSF from the ST-16 sump. There was no sampling 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 April, 16,451 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 April, 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 April.

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

Table 2.6.1: Seprotech Effluent Results

Parameters	Units	April 11, 2022
Unionized Ammonia (NH ₃)	mg N/L	0.026
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	85
Total Kjeldahl Nitrogen	mg N/L	94
BOD-5	mg/L	250
COD	mg/L	580
Total Suspended Solids	mg/L	140
Nitrate	mg N/L	< 0.10
Nitrite	mg N/L	0.037
pH*	Units	5.70
Fecal Coliform	UFC/100 mL	< 2
Total Coliform	UFC/100 mL	7700

*Parameter measured by STP operators

Table 2.6.2: LJ-Mix Effluent Results

Parameters	Units	April 11, 2022
Unionized Ammonia (NH ₃)	mg N/L	0.0031
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	19
Total Kjeldahl Nitrogen	mg N/L	22
BOD-5	mg/L	6
COD	mg/L	57
Total Suspended Solids	mg/L	13
Nitrate	mg N/L	14.8
Nitrite	mg N/L	0.155
pH*	Units	5.50
Fecal Coliform	UFC/100 mL	5
Total Coliform	UFC/100 mL	<10000

*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 occurred from April 7th to 30th and a total of 4,713 m³ was discharged.

Six (6) effluent samples were collected at ST-8 during the month. The TSS results did not exceed the maximum monthly average concentration (15 mg/L), however the maximum allowable grab sample concentration (30 mg/L) permitted by the Water License, Part F, Item 7 was exceeded in one instance at 49 mg/L. The TSS monitoring results for the month are provided in Table 2.9.1 below. See Section 3 below for complete explanation regarding a potential TSS Water License exceedance on April 9th.

Table 2.9.1: East Dike Seepage Results for TSS

Parameter	Unit	Sample Date						Monthly Average
		4/9/2022	4/10/2022	4/11/2022	4/18/2022	4/25/2022	4/26/2022	
Total Suspended Solids	mg/L	49	2	2	2	2	2	9.8

Monthly sampling pursuant to the Water License was also conducted at ST-8 in April. The results are shown in Table 2.9.2 below.

Table 2.9.2: April 2021 Monthly Monitoring Results

Parameter	Unit	Sample Date		Monthly Average
		4/11/2022	4/26/2022	
pH*	-	7.69	8.04	7.87
Aluminum	mg/L	0.0453	0.0477	0.0465
Sulphate	mg/L	6.6	7.4	7.0
Arsenic	mg/L	0.00136	0.00079	0.00108
Copper	mg/L	0.00119	0.00172	0.00146
Nickel	mg/L	< 0.0010	< 0.0010	0.0005
Lead	mg/L	< 0.00020	< 0.00020	0.00010
Zinc	mg/L	< 0.0050	0.0068	0.0047
Radium 226	mg/L	< 0.0050	< 0.0050	0.0025
Total Cyanide	mg/L	< 0.00050	< 0.00050	0.00025
Turbidity	NTU	2.06	2.81	2.44
Unionized Ammonia	mg/L	< 0.00061	< 0.00055	0.00029

* Parameter measured by technician

2.10 NON CONTACT WATER

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

2.11 IN-PIT DISPOSAL

Tailings were disposed of 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 2022 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for April.

Twelve (12) spills occurred on site during the month with three (3) 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.

The East Dike Discharge effluent was sampled on April 9, 2022 at 7:10 am CT. Laboratory results of the April 9 sample were received on April 25, 2022. The result for total suspended solid (TSS) of 49 mg/L exceeded the regulatory limit of 30 mg/L maximum authorized concentration in a grab sample. East Dike Discharge to Second Portage Lake effluent was also sampled on April 10 and April 11. External laboratory TSS results for both samples are 2 mg/L. Based on a total flow of 220 m³ between April 9, 7:00 am and April 10, 7:30 am CT, the quantity of TSS release is estimated to be at most 10.78 kg.

External laboratory results of April 10, April 11, April 18, April 25, and April 26 were below the authorized limits: April 10 (TSS – 2 mg/L), April 11 (TSS – 2 mg/L), April 18 (TSS – 2 mg/L), April 25 (TSS – 2 mg/L), and April 26 (TSS – 2 mg/L) indicating the TSS spike on April 9 was a one-time event. Additionally, acute lethality testing to *Daphnia Magna* and Rainbow Trout was performed on April 11 and demonstrated the effluent to be non-toxic to Rainbow Trout and *Daphnia Magna*. The April monthly TSS average for ST-MMER- 3/ST-8 was 9.8mg/L.

Moreover, as part of internal monitoring to ensure the protection of the receiving environment, Agnico analysed on a daily basis a TSS sample from the East Dike seepage collection system through the onsite laboratory, providing real time data for guidance. Results of these samples between April 1 and April 9 were all below the authorized limit, ranging between 2.80 mg/L and 6.60 mg/L, for an average of 4.97 mg/L not allowing to foresee the exceedance on April 9. Furthermore, the internal results on April 9 were 2.80 mg/L. In the month of April, the discharge from the East Dike Seepage to Second Portage Lake was operational between April 7 and April 30 and is only expected to resume later in the fall of 2022.

Figure 3.1 2022 Reported and Non-Reported Spills

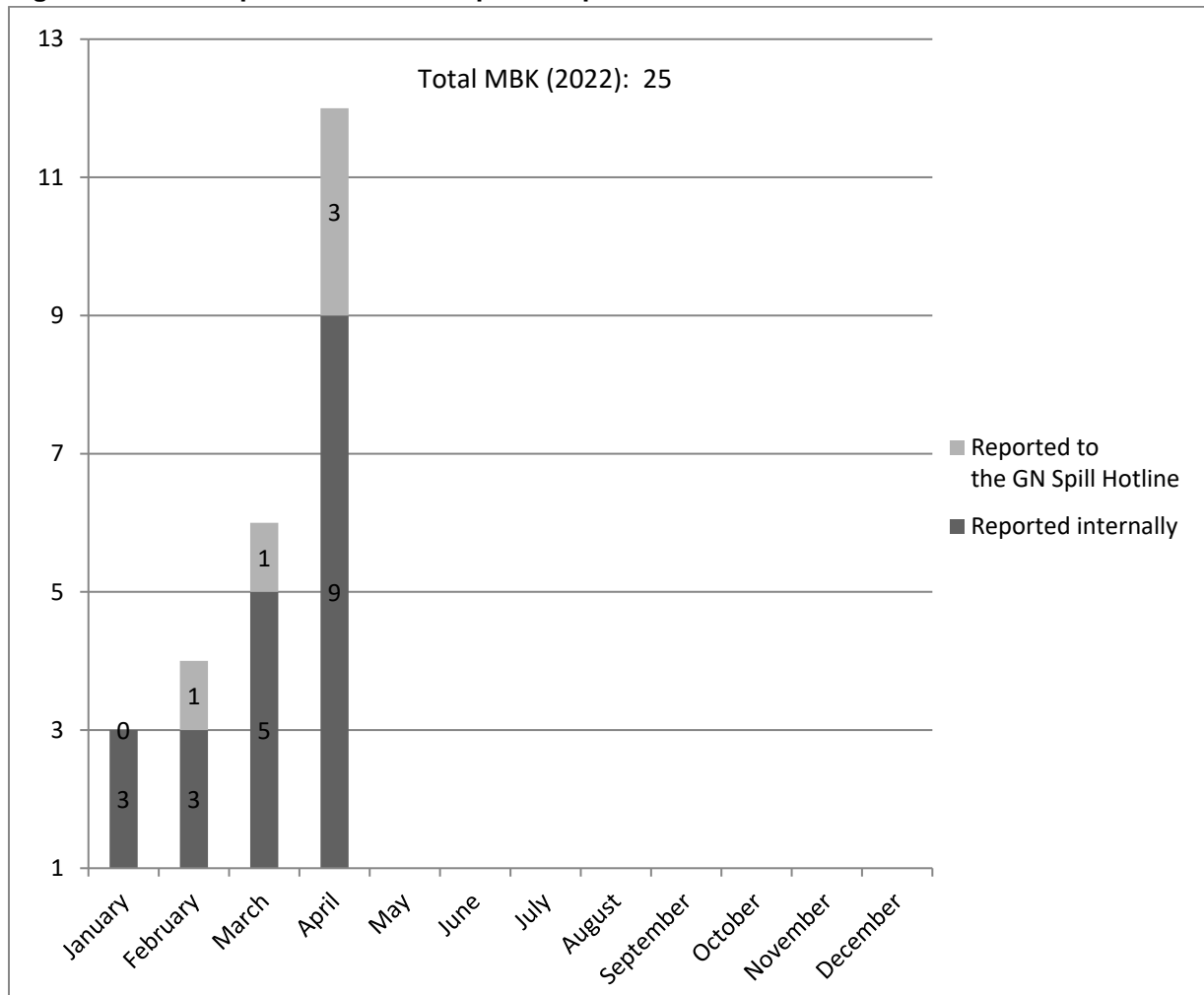


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, April 2022

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
4/1/2022	Diesel Fuel	5	L	Fuel Farm	Equipment malfunction	Absorbent pads used. Contaminated soil was collected and brought to a yellow bin for disposal.
4/2/2022	Coolant	2	L	Baker Lake Tank Farm	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
4/5/2022	Diesel Fuel	30	L	LHT Refuelling Area	Unknown	Contaminated soil was collected and brought to a yellow bin for disposal.
4/9/2022	TSS	10.78	Kg	East Dike ST-MMER-3/ST-8	The effluent of ST-MMER-3 East dike discharge was sampled on April 9, 2022 as required by the Water License 2AM-MEA1530 and MDMER. The results of the internal TSS analysis revealed a concentration of 2.8 mg/L, however the external laboratory results revealed a concentration of 49 mg/L.	Discharge was stopped.
4/13/2022	Glycol	1	L	Inside of pebble crusher	Hose failure	Contaminated rags brought to hazmat for adequate disposal.

4/19/2022	Transmission Oil	5	L	AWAR KM 58	Broken transmission	Contaminated soil was collected and brought to a yellow bin for disposal.
4/23/2022	Antifreeze	8	L	AWAR KM 69	Equipment failure	Spill was contained, and contaminated soil was picked up and disposed of appropriately in a yellow bin
4/23/2022	Diesel Fuel	6	L	Baker Lake Barge Dock	Equipment failure	Spill was contained, and contaminated soil was picked up and disposed of appropriately in a yellow bin
4/23/2022	Diesel Fuel	100	L	Fuel Farm	After offloading the driver failed to disconnect the loading arm.	Spill pads were placed on the ground and an excavator was immediately brought at the tank farm to scrape the contaminated snow and material. Approximately 5m3 was collected into a roll off and was brought to the Meadowbank landfarm.
4/25/2022	Sewage	30	L	Under Wing 6	Damaged sewage line due to thermal expansion/contraction.	Hand shovels and equipment were used to manually excavate the contaminated area under the wing. The contaminated material was disposed of appropriately at the Hazmat area.
4/29/2022	Diesel fuel	5	L	Fuel Farm	Unknown	Contaminated soil was collected and brought to a yellow bin for disposal.

4/30/2022	Hydraulic Oil	5	L	Pit E	Unknown	Contaminated soil was collected and brought to a yellow bin for disposal.
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