



MEADOWBANK DIVISION

## **Monitoring Program Summary Report**

**May 2021**

Type A Water License 2AM-MEA1530

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## **SECTION 1 • BACKGROUND**

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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 (m<sup>3</sup>)**

Water Location	Source Lake	Jan	Feb	March	April	May	Total
Camp	Third Portage Lake	2 639	2 334	2 376	2 297	2 536	12 182
Mill (freshwater tank)	Third Portage Lake	125 901	87 438	87 445	78 643	98 397	477 824
Emulsion plant	Unnamed Lake	104	90	127	118	133	572
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>128 644</b>	<b>89 862</b>	<b>89 948</b>	<b>81 058</b>	<b>101 066</b>	<b>490 578</b>
<b>Ore Water (m<sup>3</sup>)</b>	Ore	4 408	3 310	3 684	2 416	3 310	17 128
<b>Reclaim Water Usage (m<sup>3</sup>)</b>	Tailings Pond	237 647	205 445	277 684	171 821	209 538	1 102 135

### 2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In May, 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.

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

### 2.3 CENTRAL DIKE SEEPAGE

In May, 56,391 m<sup>3</sup> 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 Engineering Department, as well as daily monitoring of piezometric values.

### 2.4 ASSAY ROAD SEEPAGE

In May, 3,177 m<sup>3</sup> of water was pumped from the mill trench back to the mill. No non-conformities were found.

### 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 May.

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.

No water was pumped from the Stormwater Management pond to the tailings storage facility during the month.

**Table 2.6.1: Seprotech Effluent Results**

Parameters	Units	May 10, 2021
Ammonia (NH <sub>3</sub> )	mg N/L	NA
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	10.0
Total Kjeldahl Nitrogen	mg N/L	9.2
BOD-5	mg/L	3
COD	mg/L	45
Total Suspended Solids	mg/L	4
Nitrate	mg N/L	22.3
Nitrite	mg N/L	0.041
pH*	Units	5.00
Fecal Coliform	UFC/100 mL	<10
Total Coliform	UFC/100 mL	200

\*Parameter measured by STP operators

**Table 2.6.2: LJ-Mix Effluent Results**

Parameters	Units	May 10, 2021
Ammonia (NH <sub>3</sub> )	mg N/L	NA
Ammonia-Nitrogen (NH <sub>3</sub> -NH <sub>4</sub> )	mg N/L	6.8
Total Kjeldahl Nitrogen	mg N/L	5.6
BOD-5	mg/L	25
COD	mg/L	44
Total Suspended Solids	mg/L	45
Nitrate	mg N/L	14.5
Nitrite	mg N/L	0.053
pH*	Units	6.40
Fecal Coliform	UFC/100 mL	250
Total Coliform	UFC/100 mL	2,000

\*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 May 1<sup>st</sup> to 6<sup>th</sup> and a total of 1,221 m<sup>3</sup> was discharged.

Two (2) weekly effluent samples were collected at ST-8 during the month. The TSS results did not exceed the maximum allowable grab sample concentration (30 mg/L), however the maximum monthly average concentration (15 mg/L) permitted by the Water License, Part F, Item 7 was exceeded at 16 mg/L. Historically, the East Discharge effluent has been stopped prior to freshet each spring to prevent any TSS exceedances. As a precautionary measure, the East Dike Discharge was stopped on May 6<sup>th</sup>, 2021 and currently there is still no discharge from the East Dike seepage to Second Portage Lake. Agnico Eagle has put in place a weekly TSS monitoring program to follow the water quality. Once the results are satisfying for Agnico Eagle and compliant with the MDMER and NWB Water License 2AM-MEA1530 regulation for a period judged acceptable for confirmation that the TSS level meets discharge criteria, the water discharge may resume in Second Portage Lake. The TSS monitoring results for the month are provided in Table 2.9.1 below. See Section 3 below for completed explanation regarding a potential TSS Water License exceedance on May 3<sup>rd</sup>.

**Table 2.9.1: East Dike Seepage Results for TSS**

Parameter	Unit	Sample Date		Monthly Average
		03/05/2021	05/05/2021	
Total Suspended Solids	mg/L	29	3	16

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

**Table 2.9.2: May 2021 Monthly Monitoring Results**

Parameter	Unit	Sample Date
		05/05/2021
pH*	-	7.87
Aluminum	mg/L	0.0447
Sulphate	mg/L	6.7
Arsenic	mg/L	0.00041
Copper	mg/L	0.00092
Nickel	mg/L	0.0152
Lead	mg/L	<0.0002
Zinc	mg/L	<0.005
Radium 226	mg/L	<0.005
Total Cyanide	mg/L	<0.005

\* 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 May 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.

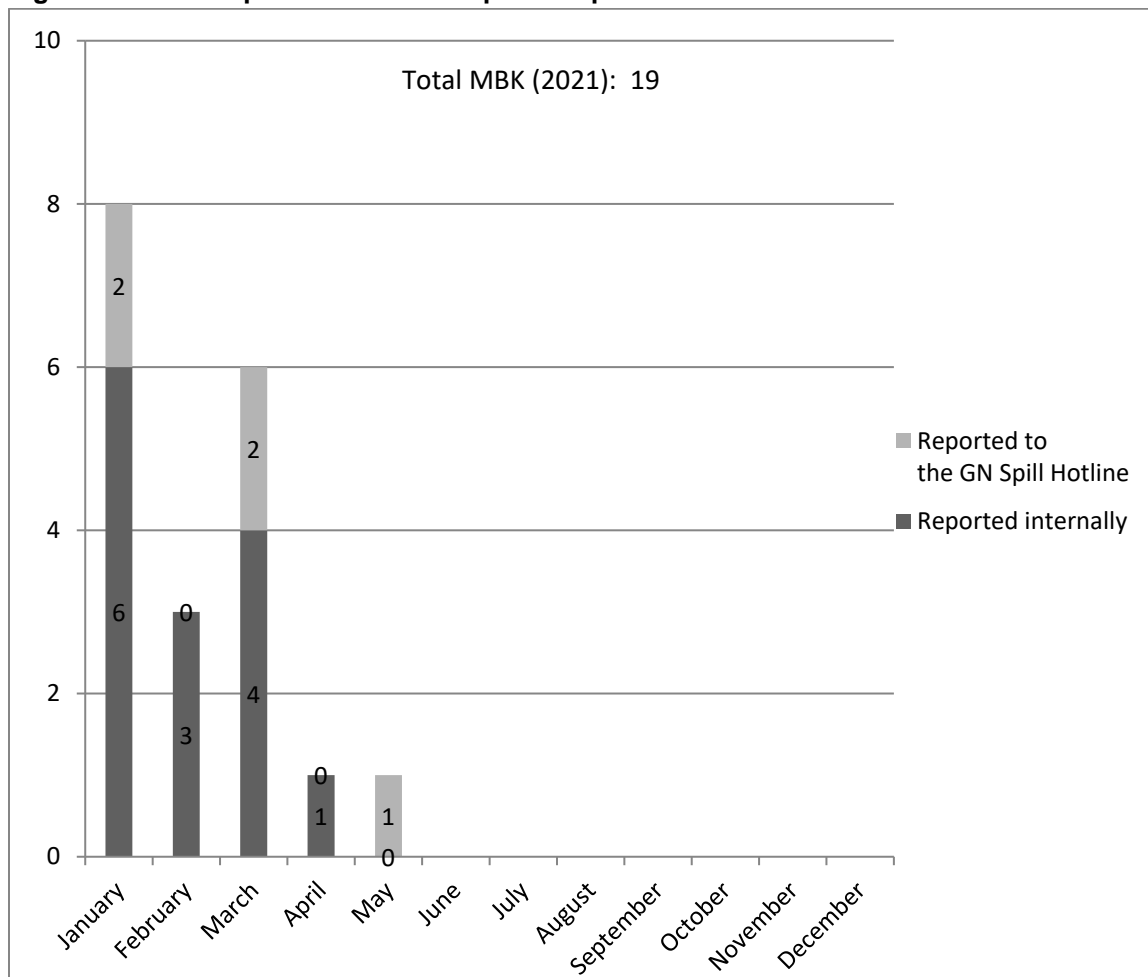
## SECTION 3 • SPILL MANAGEMENT

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 May.

Only one potential Water License exceedance was reported in May to regulators.

- On May 4<sup>th</sup>, Agnico Eagle advised regulators of a potential TSS exceedance at the East Dike Discharge to Second Portage Lake. The East Dike Discharge effluent was sampled on May 3<sup>rd</sup>, 2021 at 08:15 CT. The results of the internal TSS analysis, received on May 4<sup>th</sup>, revealed a concentration of 55 mg/L. Accredited external laboratory results of this sample were received on May 7<sup>th</sup>. The result for total suspended solid (TSS) of 29 mg/L validated the grab sample on May 3<sup>rd</sup>, 2021 did not exceed the regulatory limit of 30 mg/L maximum authorized concentration in a grab sample. As a precautionary measure, the East Dike Discharge effluent to Second Portage Lake was sampled again on May 5<sup>th</sup> (TSS 3 mg/L) along with a toxicity test. TSS results received on May 7<sup>th</sup> and Toxicity results received on May 17<sup>th</sup> verified no exceedance or impact to the Environment.

**Figure 3.1 2021 Reported and Non-Reported Spills**





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

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
2021-05-03	TSS	13.4	Kg	MBK ST-MMER-3 Effluent	The East Dike Discharge effluent was sampled on May 3, 2021 at 08:15 CT. The results of the internal TSS analysis, received on May 4, revealed a concentration of 55 mg/L. Accredited external laboratory results of this sample were received on May 7. The result for total suspended solid (TSS) of 29 mg/L validated the grab sample on May 3, 2021 did not exceed the regulatory limit of 30 mg/L maximum authorized concentration in a grab sample. As a precautionary measure, the East Dike Discharge effluent to Second Portage Lake was sampled again on May 5 (TSS 3 mg/L) along with a toxicity test. TSS results received on May 7 and Toxicity results received on May 17 verified no exceedance or impact to the Environment.	East Discharge effluent has been stopped prior to freshet each spring to prevent any TSS exceedances. As a precautionary measure, the East Dike Discharge was stopped on May 6, 2021 and currently there is still no discharge from the East Dike seepage to Second Portage Lake. Agnico Eagle has put in place a weekly TSS monitoring program to follow the water quality. Once the results are satisfying for Agnico Eagle and compliant with the MDMER and NWB Water License 2AM-MEA1530 regulation for a period judged acceptable for confirmation that the TSS level meets discharge criteria, the water discharge may resume in Second Portage Lake.