



MEADOWBANK DIVISION

Monitoring Program Summary Report

November 2018

Type A Water License 2AM-MEA1526

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SECTION 1 • BACKGROUND

As required under Part I, Item 20 of Type A Water License 2AM-MEA1526 (Amendment No.2), 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 are 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 November 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 | 3 237 | 3 058 | 3 404 | 3 320 | 3 527 | 3 304 |
| Mill (freshwater tank) | Third Portage Lake | 51 594 | 165 733 | 92 668 | 152 367 | 136 952 | 49 471 |
| Emulsion plant | No-name Lake | 93 | 68 | 88 | 91 | 94 | 47 |
| Total Freshwater Usage (m³) | | 54 924 | 168 859 | 96 161 | 155 778 | 140 573 | 52 822 |
| Ore Water (m³) | Ore | 2 606 | 2 047 | 2 078 | 1 500 | 2 854 | 3 177 |
| Reclaim Water Usage (m³) | Tailings Pond | 219 263 | 122 845 | 156 278 | 89 402 | 149 282 | 229 403 |

| Water Location | Source Lake | July | Aug | Sept | Oct | Nov | Dec | Total |
|---|--------------------|---------------|---------------|---------------|---------------|---------------|----------|------------------|
| Camp | Third Portage Lake | 3 330 | 3 270 | 3 265 | 3 319 | 3 409 | | 36 443 |
| Mill (freshwater tank) | Third Portage Lake | 47 009 | 43 408 | 49 672 | 30 397 | 93 314 | | 912 585 |
| Emulsion plant | No-name Lake | 68 | 66 | 60 | 87,0 | 75,9 | | 838 |
| Total Freshwater Usage (m³) | | 50 407 | 46 744 | 52 997 | 33 803 | 96 799 | 0 | 949 866 |
| Ore Water (m³) | Ore | 2 895 | 3 315 | 2 430 | 3 002 | 5 494 | | 31 398 |
| Reclaim Water Usage (m³) | Tailings Pond | 284 365 | 289 366 | 198 531 | 223 479 | 129 131 | | 2 091 345 |

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

No water was pumped back to the North Cell TSF from the ST-16 sump in November due to frozen condition.

Agnico Eagle completed in November inspections at the Portage and Vault RSFs. No open water sampling at WEP1 (Station ST-30), WEP2 (Station ST-31), ST-16, NP-2 and the downstream lakes were completed in November. NP2-Winter water sampling through ice into NP-2 Lake was done in November as the ice condition permitted safe sampling.

2.3 CENTRAL DIKE SEEPAGE

In November, 171,406 m³ of water was pumped from the ST-S-5 sump back into the South Cell TSF.

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 November, no water was pumped back to the mill. Inspections of the area were conducted this month. No wells monitoring for CN downstream in November due to frozen condition. No trench sampling in November.

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 November, ice wall continue to be observed into Vault Pit.

2.7 SEWAGE TREATMENT PLANT

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

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

Table 2.7.1: Seprotech Effluent Results

| Parameters | Units | November 6, 2018 |
|--|------------|------------------|
| Ammonia (NH ₃) | mg N/L | 0.31 |
| Ammonia-Nitrogen (NH ₃ -NH ₄) | mg N/L | 24.0 |
| Total Kjeldahl Nitrogen | mg N/L | 33.8 |
| BOD-5 | mg/L | 11 |
| COD | mg/L | 65 |
| Total Suspended Solids | mg/L | 19 |
| Nitrate | mg N/L | 7.24 |
| Nitrite | mg N/L | 1.29 |
| pH* | Units | 7.40 |
| Fecal Coliform | UFC/100 mL | 190 |
| Total Coliform | UFC/100 mL | 1,200 |

*Parameter measured by STP operators

Table 2.7.2: LJ-Mix Effluent Results

| Parameters | Units | November 6, 2018 |
|--|--------|------------------|
| Ammonia (NH ₃) | mg N/L | 0.03 |
| Ammonia-Nitrogen (NH ₃ -NH ₄) | mg N/L | 10.5 |
| Total Kjeldahl Nitrogen | mg N/L | 16.2 |
| BOD-5 | mg/L | 9 |
| COD | mg/L | 55 |

| | | |
|------------------------|------------|--------|
| Total Suspended Solids | mg/L | 30 |
| Nitrate | mg N/L | 12.7 |
| Nitrite | mg N/L | 0.68 |
| pH* | Units | 6.70 |
| Fecal Coliform | UFC/100 mL | 1,400 |
| Total Coliform | UFC/100 mL | 13,000 |

*Parameter measured by STP operators

2.8 VAULT ATTENUATION POND EFFLUENT

No discharge occurred from the Vault Attenuation Pond into Wally Lake in November.

2.9 PHASER ATTENUATION POND

No water was pumped from the Phaser Attenuation Pond in November due to frozen condition.

2.10 EAST DIKE SEEPAGE EFFLUENT

In November, a total of 11,226 m³ was discharged into Second Portage Lake.

Four (4) weekly effluent samples were collected at ST-8 in November 2018. 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 September 2018 are shown in Table 2.9.1 below. There have been no exceedances of MMER criteria.

Table 2.9.1: East Dike Seepage Results for TSS

| Parameters | Units | Nov 05, 2018 | Nov 12, 2018 | Nov 19, 2018 | Nov 26, 2018 | Maximum Average Concentration |
|------------------------|-------|--------------|--------------|--------------|--------------|-------------------------------|
| Total Suspended Solids | mg/L | <1.0 | 4.0 | 2.0 | 2.0 | 2.1 |

Monthly regular sampling pursuant to the Water License was also conducted at this location. Results are shown in Table 2.9.2 below. There have been no exceedances of MMER for those criteria.

Table 2.9.2 November 2018 Monthly Monitoring Results

| Parameters | Units | November 19, 2018 |
|------------|-------|-------------------|
| pH* | | 7.35 |
| Aluminum | mg/L | 0.049 |
| Sulphate | mg/L | 7.1 |
| Arsenic | mg/L | <0.0005 |

| | | |
|---------------|------|---------------------------|
| Copper | mg/L | 0.0006 |
| Nickel | mg/L | <0.0005 |
| Lead | mg/L | <0.0003 |
| Zinc | mg/L | <0.001 |
| Radium 226 | mg/L | Analysis not yet complete |
| Total Cyanide | mg/L | <0.001 |

*Parameter measured by environmental technicians

2.11 NON CONTACT WATER

No water sample at Portage Area East (ST-5) and West (ST-6) diversion ditches in November due to frozen condition.

SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2018 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for November.

All spills reported internally (10) were managed appropriately on site according to Agnico's spill contingency plan. No spill was reported to regulators in November. 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 2018 Reported and Non-Reported Spills

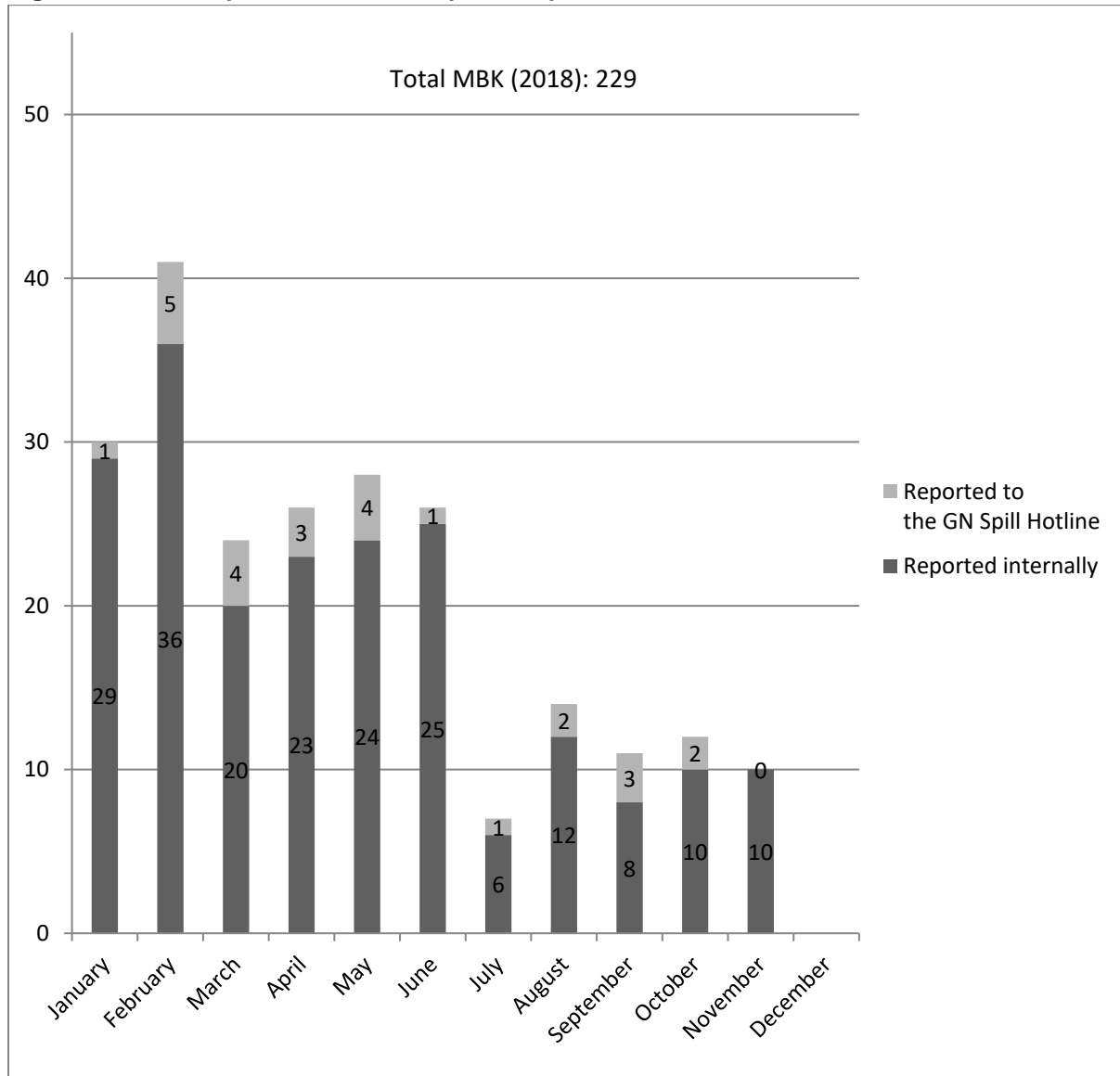


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, November 2018

| Date of Spill | Hazardous Material | Qty | Units (L / Kg) | Location | Cause of spill | Clean-up action taken |
|-------------------|--------------------|-----|----------------|-----------------------------|--|---|
| November 5, 2018 | Diesel | 40 | L | MBK Refuelling station | Fuel nozzle valve was open. When the operator placed the fuel tree over the truck and started the pump some fuel spilled to the ground | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 7, 2018 | Coolant | 10 | L | Vault Rock Storage Facility | Coolant hose failure | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 7, 2018 | Waste Water | 15 | L | MBK Behind medical clinic | Sewage pipe was frozen. Opened a flange on the pipe and there was some left in. | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 7, 2018 | Transmission Fluid | 10 | L | Phaser Dump | Dozer transmission broke down | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 17, 2018 | Coolant | 25 | L | Portage parking | Coolant hose failure | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 23, 2018 | Hydraulic oil | 10 | L | MBK Site Service coverall | Hydraulic fitting failure | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 24, 2018 | Coolant | 10 | L | MBK Dispatch parking | Water pump failure | Spill was contained and contaminated soil picked |

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|-------------------|---------------|----|---|-------------------------|---|---|
| | | | | | | up and disposed of appropriately |
| November 26, 2018 | Diesel | 4 | L | Portage Pit | Fuel Tank Breather was defective and did not stop the automatic shut off on the fuel nozzle on the fuel truck | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 27, 2018 | Hydraulic oil | 40 | L | MBK Primary crusher pad | Hydraulic hose failure | Spill was contained and contaminated soil picked up and disposed of appropriately |
| November 28, 2018 | Diesel | 20 | L | MBK South Pit | Tank ventilation failure | Spill was contained and contaminated soil picked up and disposed of appropriately |