



MEADOWBANK COMPLEX

Monitoring Program Summary Report

September 2024

Type A Water License 2AM-MEA1530

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SECTION 1 • BACKGROUND

On June 13, 2020, Agnico Eagle 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 Mine.

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), an update to the In-Pit disposal and follow up to the AWAR spill at Km 87.

In addition, a summary of spills/actions for the month is reported.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Freshwater 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	May
Camp	Third Portage Lake	3,070	2,607	2,996	3,056	2,996
Mill (freshwater tank)	Third Portage Lake	67,195	67,265	68,740	73,895	78,772
Emulsion plant	Unnamed Lake	0	0	0	0	0
Total Freshwater Usage (m³)		70,265	69,872	71,736	76,951	81,768
Ore Water (m³)	Ore	4,895	3,611	3,713	2,800	4,141
Reclaim Water Usage (m³)	Tailings Pond	310,525	302,920	323,994	239,893	271,080

Water Location	Source Lake	June	July	Aug	Sept	Total
Camp	Third Portage Lake	3,122	2,976	2,848	2,708	26,379
Mill (freshwater tank)	Third Portage Lake	93,042	77,779	87,857	81,290	695,835
Emulsion plant	Unnamed Lake	0	0	0	0	0
Total Freshwater Usage (m³)		96,164	80,755	90,705	83,998	722,214
Ore Water (m³)	Ore	3,424	2,871	3,951	3,722	33,128
Reclaim Water Usage (m³)	Tailings Pond	311,616	305,019	307,092	315,016	2,687,155

2.2 WASTE ROCK STORAGE FACILITY SEEPAGE

In September, 20,130 m³ of water was pumped back to Portage Pit from the ST-16 sump. Of that amount, 14,168 m³ was transferred from WEP1 sump and 5,404 m³ from WEP2 sump to the ST-16 sump.

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

2.3 CENTRAL DIKE SEEPAGE

In September, 80,883 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 September, 21,330 m³ of water was pumped from the mill trench back to the mill. Routine monitoring and inspection occurred 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 September. 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 September, 7,764 m³ of water was pumped from the Stormwater Management Pond to Portage Pits.

Table 2.6.1: Seprotech Effluent Results

Parameters	Units	September 3, 2024
Unionized Ammonia (NH ₃)	mg N/L	0.072
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	31
Total Kjeldahl Nitrogen	mg N/L	31
BOD-5	mg/L	8
COD	mg/L	41
Total Suspended Solids	mg/L	4
Nitrate	mg N/L	5.59
Nitrite	mg N/L	0.992
pH*	Units	6.70
Fecal Coliform	UFC/100 mL	60
Total Coliform	UFC/100 mL	500

*Parameter measured by STP operators

Table 2.6.2: LJ-Mix Effluent Results

Parameters	Units	September 3, 2024
Unionized Ammonia (NH ₃)	mg N/L	0.0038
Ammonia-Nitrogen (NH ₃ -NH ₄)	mg N/L	12
Total Kjeldahl Nitrogen	mg N/L	14
BOD-5	mg/L	12
COD	mg/L	57
Total Suspended Solids	mg/L	13
Nitrate	mg N/L	6.37
Nitrite	mg N/L	0.234
pH*	Units	5.80
Fecal Coliform	UFC/100 mL	3,800
Total Coliform	UFC/100 mL	21,000

*Parameter measured by STP operators

2.7 VAULT ATTENUATION POND EFFLUENT

No discharge has occurred from the Vault Attenuation Pond since October 9, 2017.

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

No water was discharged from the East Dike to Second Portage Lake during the month. In September, water from the East Dike seepage was discharged into Portage Pits.

2.10 NON-CONTACT WATER

In September, Agnico Eagle completed inspections at Portage Area East diversion ditch (ST-5) and West diversion ditch (ST-6). Portage Area East (ST-5) and West diversion ditches (ST-6) water quality results are shown in Tables 2.10.1 and 2.10.2, respectively.

East Diversion Ditch (ST-5)

On September 20th, during a regular freshet inspection of the East Diversion Ditch, a turbid plume of water was observed at the exit of the diversion ditch where it connects to the shore of NP2 Lake at the registered sampling point ST-5. The plume extended ~1m into the lake and ~5 m along the immediate shoreline, with no observable impact further into the lake. A spill report #2024-364 was submitted on September 21st.

Upon observation of the runoff into the lake, the environmental personnel deployed, additional woodchip-turbidity logs in areas of concerns and turbid inflows from the land to control the transportation of sediments. A silt curtain was installed along the shore of the lake to contain the plume and minimize further transportation of sediments. Over the next week, inspections and monitoring of the area was performed by environmental staff. During the monitoring, the TSS control measures were monitored, repaired and added, as needed. Samples of the water quality (total suspended solids) of the lake outside of the barrier were collected to ensure the control measure were functioning as intended. Acute Lethality samples were also collected and results show no toxicity.

The identified cause for the turbid runoff is the heavy rains received from September 20th to September 27th where above average volumes of water reported through the diversion ditch without sufficient control measures in place. The volume of water flows over the land and from the road which transported sediments into the ditch and towards the lake.

TSS results for ST-5 did not exceed the maximum allowable grab sample concentration (30 mg/L), or the maximum average concentration (15 mg/L) permitted by the Water License, Part F, Item 7. The average monthly TSS concentration was 4.4 mg/L.

Table 2.10.1: Portage Area East Diversion Ditch (ST-5) Results

Parameter	Units	15-Sep-24	21-Sep-24	22-Sep-24	23-Sep-24	24-Sep-24
Total Suspended Solids (TSS)	mg/L	2	7	5	4	9

Parameter	Units	25-Sep-24	26-Sep-24	27-Sep-24	28-Sep-24	30-Sep-24
Total Suspended Solids (TSS)	mg/L	3	5	2	5	3

West Diversion Ditch (ST-6)

On September 20th, during a regular freshet inspection of the West Diversion Ditch, a turbid plume of water was observed at the exit of the diversion ditch where it connects to shore of Third Portage Lake at the registered sampling point ST-6. The plume extended ~2m into the lake and ~20m along the immediate shoreline area, with no observable impact further into the lake. A spill report #2024-365 was submitted on September 21st.

Upon observation of the runoff into the lake, the environmental personnel deployed additional woodchip-log in areas of concern and turbid inflows from the land to control the transportation of sediments. A Maritime curtain was installed along the shore of the lake to contain the plume and minimize further transportation of sediments. Over the next week, inspections and monitoring of the area was performed by environmental staff. During the monitoring, the TSS control measures were monitored, repaired and added, as needed. Samples of the water quality (total suspended solids) of the lake outside of the barrier were collected to ensure it was functioning as intended. Acute Lethality samples were also collected and results show no toxicity.

The identified cause for the turbid runoff is the heavy rains received from September 20th to September 27th where above average volumes of water reported through the diversion ditch without sufficient control measures in place. The volume of water flows over the land and from the road which transported sediments into the ditch and towards the lake.

ST-6 exceeded the maximum allowable grab sample concentration (30 mg/L), and the maximum average concentration (15 mg/L) permitted by the Water License, Part F, Item 7. The average monthly TSS concentration was 27.25 mg/L.

Table 2.10.2: Portage Area West Diversion Ditch (ST-6) Results

Parameter	Units	15-Sep-24	21-Sep-24	22-Sep-24	23-Sep-24	24-Sep-24
Total Suspended Solids (TSS)	mg/L	6	81.5*	1	6	10

Parameter	Units	25-Sep-24	26-Sep-24	27-Sep-24	28-Sep-24	30-Sep-24
Total Suspended Solids (TSS)	mg/L	62	5	49	49	3

TSS result from September 21st is from internal lab. All other results are from an accredited lab

Monitoring of both ST-5 and ST-6 continued and was followed closely after each rain event to ensure the mitigation measures in place are effective. Agnico Eagle intends to investigate and trial alternative means for sediment and erosion control during the 2025 Freshet. A geotechnical field investigation will be conducted by Agnico Eagle to identify further areas of improvement to the structure to prevent similar events from occurring.

2.11 IN-PIT DISPOSAL

Tailings were disposed of in Portage Pits and reclaim water was taken from Portage Pits for the month.

SECTION 3 • SPILL MANAGEMENT

Figure 3.1 shows reported and non-reported spills for 2024 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for September.

Eight (8) spills occurred on site during the month with four (4) being reported to regulators. Spills were contained and cleaned, contaminated material was disposed of in the appropriate area, and the clean-up actions were monitored closely by the Environment Department.

Figure 3.1 2024 Reported and Non-Reported Spills

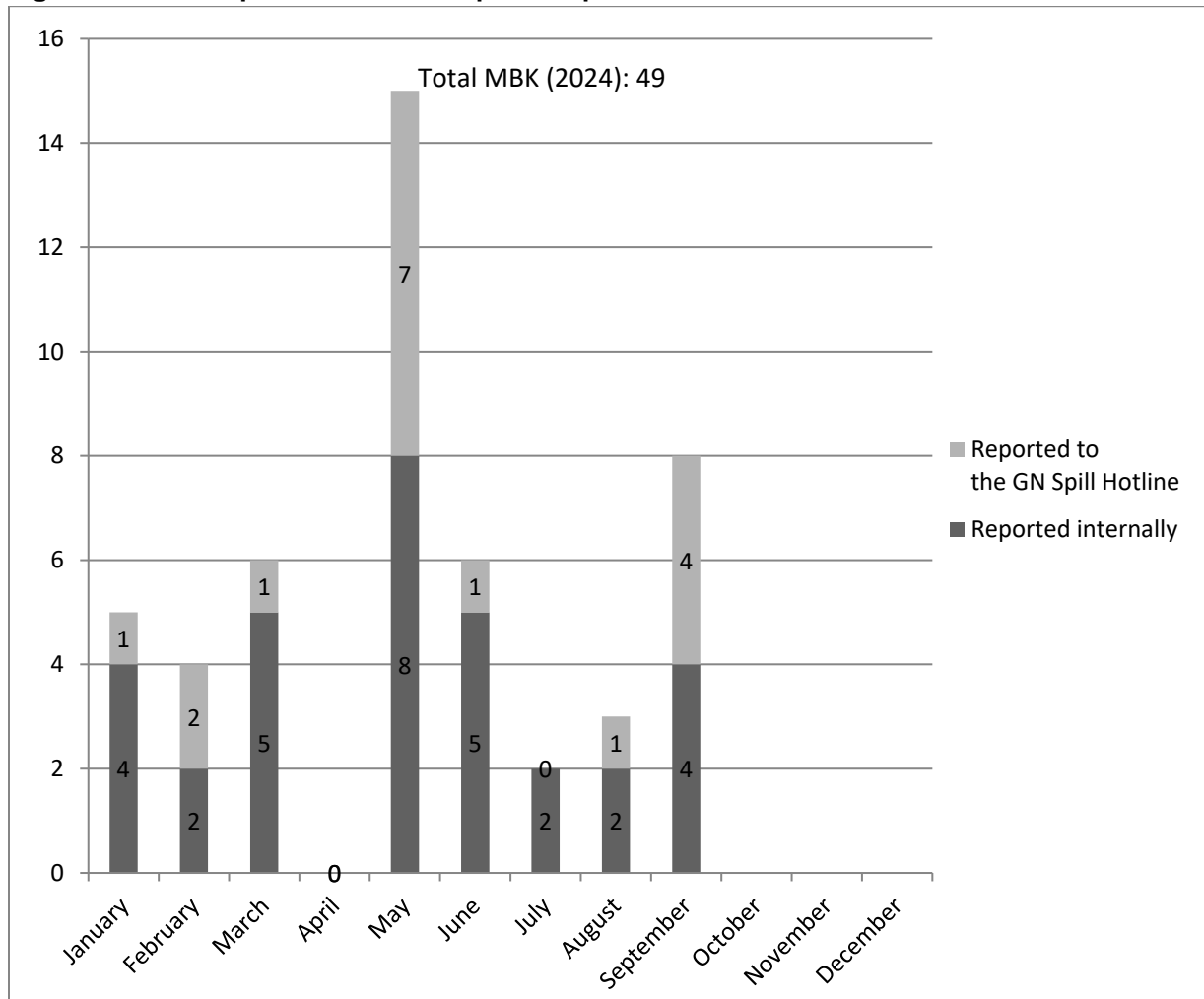


Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, September 2024

Date of Spill	Hazardous Material	Quantity	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
9/8/2024	TSS	Unknown	Kg	Baker Lake Spud Barge	Turbid Runoff caused by Heavy Rain	Upon observation of the runoff into the lake, the environmental personnel deployed, woodchip-log or straw-log booms and rock fill berm in the flow path of the runoff, to control the transportation of sediments. Over the next week, inspections and monitoring of the area was performed by environmental staff. During the monitoring, the TSS control measures were monitored, repaired and added, if needed. Samples of the water quality (total suspended solids) of the lake adjacent to the dock facilities were taken.
9/13/2024	Diesel Fuel	1,000	L	Meadowbank Fuel Farm	Human error	Spill response materials were deployed, and heavy equipment was brought to the scene to contain the spill. Approximately 20 cubic meters of contaminated material was collected into a roll-off container and transported to the Meadowbank Landfarm.
9/13/2024	Hydraulic Oil	15	L	Freshwater Barge Road	Equipment failure	Contaminated material was collected and brought for disposal at the MBK Landfarm
9/20/2024	TSS	Unknown	Kg	ST-6/Third Portage Lake	Turbid Runoff caused by Heavy Rain	Upon observation of the runoff into the lake, the environmental personnel deployed additional woodchip-log in areas of concerns and turbid inflows from the land to control the transportation of sediments. A Maritime curtain was installed along the shore of the lake to contain the plume and minimize further transportation of sediments. Over the next week, inspections and monitoring of the area was performed by environmental staff. During the monitoring, the TSS control measures were monitored, repaired and added, as needed. Samples of the water quality (total suspended solids) of the lake outside of the barrier to ensure its was functioning as intended.

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9/20/2024	TSS	Unknown	Kg	ST-5/NP2 Lake	Turbid Runoff caused by Heavy Rain	Upon observation of the runoff into the lake, the environmental personnel deployed, additional woodchip-turbidity logs in areas of concerns and turbid inflows from the land to control the transportation of sediments. A silt curtain was installed along the shore of the lake to contain the plume and minimize further transportation of sediments. Over the next week, inspections and monitoring of the area was performed by environmental staff. During the monitoring, the TSS control measures were monitored, repaired and added, as needed. Samples of the water quality (total suspended solids) of the lake outside of the barrier were collected to ensure the control measure were functioning as intended. Sample results show no exceedance of water license parameters.
9/26/2024	Water Mixed with Spray Paint	20	L	Outside Warehouse	Human error	Contaminated material was collected and brought for disposal at the Meadowbank TSF.
9/28/2024	Coolant	50	L	Main Truck Shop	Punctured Tote	Contaminated material was collected and placed in roll off bin for disposal at the Meadowbank TSF.
9/30/2024	Diesel Fuel	25	L	Meadowbank Fuel Farm	Human error	Contaminated material was collected and brought for disposal at the MBK Landfarm

3.1 KM 87 SPILL FOLLOW UP

In September, Agnico Eagle completed inspections at KM87 spill areas. A total of 404 m³ was pumped from the collection sump and brought to the Stormwater management pond. Sampling was collected downstream of the collection sump at sampling station ST-44. Water quality results are shown in Table 3.2.

Table 3.2: KM87 (ST-44) Results

Parameter	Unit	9/2/2024	9/9/2024	9/15/2024	9/22/2024	9/29/2024
pH	pH units	6.84	7.13	6.85	6.84	7.43
TSS	mg/L	22	3	6	9	4
Total oil and grease	mg/L	0.90	< 0.50	< 0.50	0.60	0.90
Benzene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F2 (C10-C16)	mg/L	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
F3 (C16-C34)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Petroleum Hydrocarbon F (C10-C50)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2