



WHALE TAIL MINE

# **Monitoring Program Summary Report**

**April 2023**

Type A Water License 2AM-WTP1830

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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-WTP1830 Amendment No.1. 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 22 of Type A Water License 2AM-WTP1830, this report documents the water management and monitoring activities at the mine site for the month. This includes water usage, water and seepage monitoring around site, sewage treatment plant discharge and Attenuation Pond discharge.

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

Water Location	Source Lake	Jan	Feb	March	April	Total
Camp	Nemo	3,615	3,547	3,749	3,453	<b>14,364</b>
Construction/Operation	Nemo	3,754	3,618	3,264	3,007	<b>13,643</b>
Dust Suppression	WTHR Pond	0	0	0	0	<b>0</b>
Explosive	Mammoth Lake	0	0	0	0	<b>0</b>
Drilling	Proximal Sources	0	0	0	0	<b>0</b>
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>7,369</b>	<b>7,165</b>	<b>7,013</b>	<b>6,460</b>	<b>28,007</b>

### 2.2 LAKE WATER MONITORING

Lakes around the Whale Tail Mine were monitored on a monthly basis during the open water season. In April, no samples were taken at Lake A16 (ST-WT-14) or Lake A15 (ST-WT-15) due to freezing conditions.

### 2.3 WHALE TAIL SOUTH CHANNEL

The Whale Tail South Channel was not operational in April due to freezing conditions.

### 2.4 WHALE TAIL DIKE SEEPAGE MONITORING

Seepage at the toe of Whale Tail dike (WTD) was still observed during the month. Agnico continues to manage seepage water from WTD as part of the Whale Tail Attenuation Pond.

Seepage water quality is monitored as per requirements of the Water License. The sampling station is ST-WT-17 and is sampled minimally on a monthly basis for Group 1 parameters.

### 2.5 SEWAGE TREATMENT PLANT

Effluent from the sewage treatment plant (STP) is discharged to the IVR Attenuation Pond. As per Water License Schedule I Sampling Station ST-WT-11, effluent is to be sampled four times per calendar year. Agnico is currently sampling the STP monthly and thus a sample was taken in April. A total of 3,209.1 m<sup>3</sup> was discharged during the month.

### 2.6 WHALE TAIL/IVR ATTENUATION PONDS

Water from the IVR Attenuation Pond was discharged during the month of April in Whale Tail South. Discharge in Whale Tail South Permanent Diffusor was from April 10<sup>th</sup> to 15<sup>th</sup>, April 24<sup>th</sup>, and April 26<sup>th</sup> to 29<sup>th</sup>. Water was treated by the Water Treatment Plan before discharge. A total of 131,721 m<sup>3</sup> was discharged to Whale Tail South.

As per Water License Part F Item 5, the effluent from this discharge shall not exceed the limits detailed in Table 2.6.1 below. No non-compliance observed during the month of April related to these discharges to the receiving environment. There were no exceedances of Water License or MDMER limits during the month.

**Table 2.6.1: IVR Attenuation Pond Discharge to Whale Tail South Permanent Diffusor (ST-WT-24)**

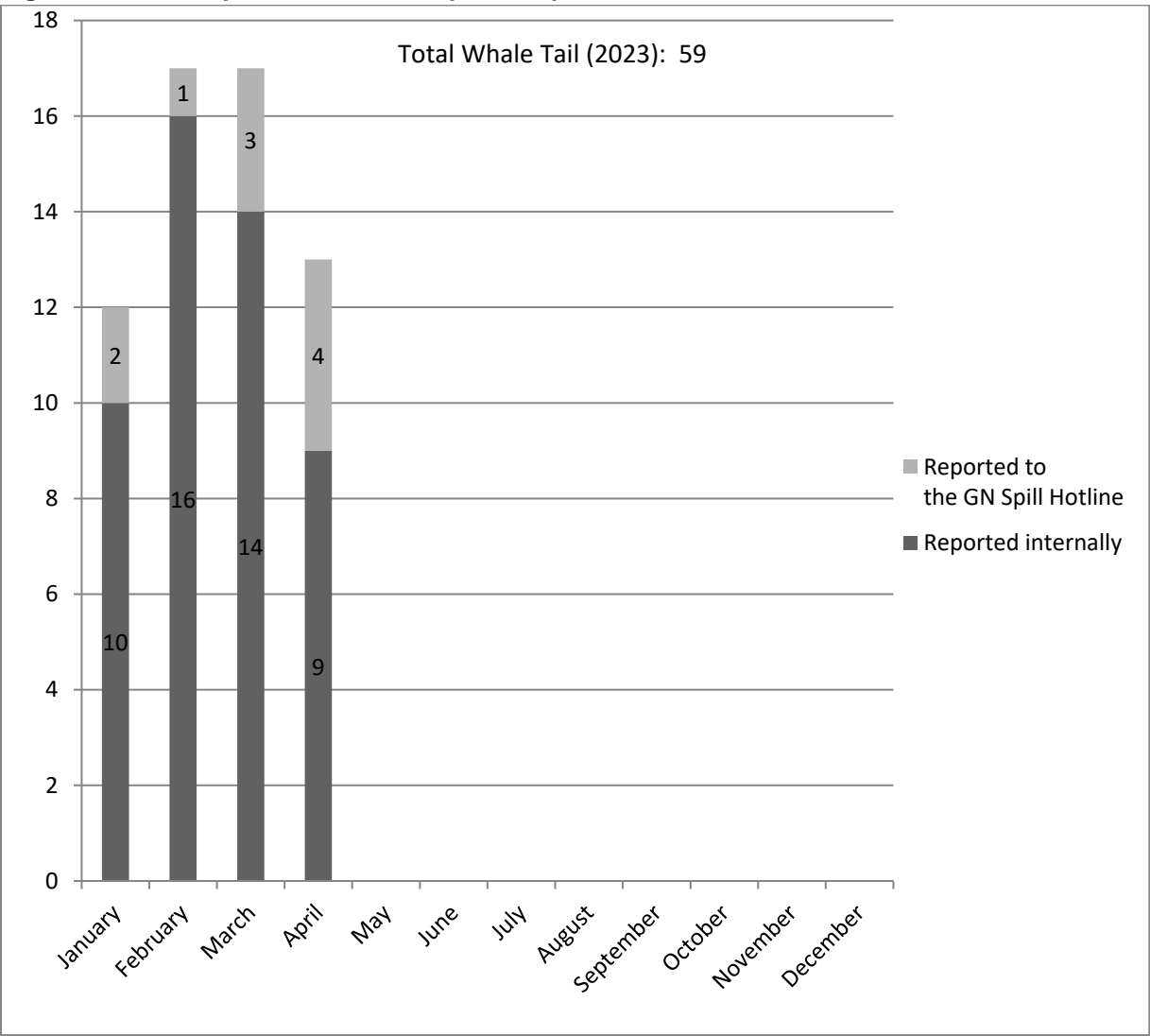
Parameter	Maximum Authorized Concentration Grab Sample	Maximum Authorized Monthly Mean Concentration	Unit	Sample Date		Monthly Average
				4/10/2023	4/24/2023	
Field Measured						
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.50	7.46	7.48
Conventional Parameters						
Total suspended solids	30	15	mg/L	2	1	1.5
Nutrients						
Total phosphorus	0.6	0.3	mg P/L	0.0018	< 0.0010	0.0012
Ammonia nitrogen (NH3-N)	32	16	mg N/L	4.2	1.0	2.6
General Organics						
Total petroleum hydrocarbons	6	3	mg/L	< 0.2	< 0.2	0.1
Total Metals						
Aluminum	1	0.5	mg/L	< 0.0030	< 0.0030	0.0015
Arsenic	0.2	0.1	mg/L	0.00088	0.00057	0.00073
Cadmium	0.004	0.002	mg/L	< 0.000010	< 0.000010	0.000005
Chromium	0.04	0.02	mg/L	< 0.0010	< 0.0010	0.0005
Copper	0.2	0.1	mg/L	0.00146	0.00067	0.00107
Iron	2	1	mg/L	0.0634	0.0587	0.0611
Lead	0.1	0.05	mg/L	< 0.00020	< 0.00020	0.0001
Mercury	0.008	0.004	mg/L	< 0.00001	< 0.00001	0.000005
Nickel	0.5	0.25	mg/L	0.0069	0.0061	0.0065
Zinc	0.2	0.1	mg/L	0.0082	0.0080	0.0081

**SECTION 3 • SPILL MANAGEMENT**

Figure 3.1 shows reported and non-reported spills for 2023 broken down per month and Table 3.1 summarizes Agnico Eagle spill reports for April.

Thirteen (13) spills occurred on site during the month with four (4) 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. There was no off-site impact to any watercourses.

**Figure 3.1 2023 Reported and Non-Reported Spills**



**Table 3.1: Summary of Agnico Eagle Internal and Reported Spill Reports, April 2023**

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
4/6/2023	Hydraulic Oil	30	L	Shovel Pad	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
4/6/2023	Hydraulic Oil	85	L	Whale Tail Pit	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
4/7/2023	Coolant	400	L	Underground Parking	Punctured tote	A loader equipped with a bucket was immediately used to excavate the contaminated area. Approximately 10 m <sup>3</sup> of contaminated snow and material was collected and disposed at the Meadowbank Tailings.
4/11/2023	Transmission Oil	1	L	Road 22	Equipment damage	Contaminated soil was collected and brought to a yellow bin for disposal.
4/12/2023	Hydraulic Oil	35	L	Washroom Parking	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
4/15/2023	Diesel Fuel	1	L	Mammoth Lake	Defective fuel cap in combination with Human Error	**Reported under 2BB-MEA1828 Water License. The fueling process was immediately stopped and absorbent materials placed to contain the spilled fuel and a mechanic was called to replace defective fuel cap. A 20L pail filled with contaminated snow and ice was collected and brought the to the Whale Tail Landfarm. All contaminated absorbent material was collected and disposed of at the Whale Tail Hazmat area.
4/19/2023	Hydraulic Oil	500	L	Underground Dome	Punctured tote	Absorbent booms were used to halt the spill from going further and spill response material was used to collect as much oil as possible. Approximately 15 m <sup>3</sup> of contaminated material was collected and disposed of at the Whale Tail Mine Landfarm.
4/20/2023	Hydraulic oil	30	L	Behind Underground Garage	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
4/20/2023	Hydraulic Oil	10	L	Orbit Garant	Equipment failure	Contaminated soil was collected and brought to a yellow bin for disposal.
4/22/2023	Oil	20	L	E&I Offices	Procedure not being followed	Contaminated soil was collected and brought to a yellow bin for disposal.
4/26/2023	Coolant	90	L	Maintenance Pad	Unknown	Contaminated soil was collected and brought to a yellow bin for disposal.
4/26/2023	Hydraulic Oil	80	L	Maintenance Pad	Unknown	Contaminated soil was collected and brought to a yellow bin for disposal.



Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
4/28/2023	Diesel Fuel	2	L	Pump Shack at Mammoth Lake	Faulty valve and Human Error	**Reported under 2BB-MEA1828 Water License. The worker immediately deployed spill pads to capture the diesel fuel that spilled onto the ice and called to have the valve replaced. ~0.5 m <sup>3</sup> of contaminated snow/ice was scraped and brought to the Whale Tail Landfarm. All contaminated absorbent material was collected and disposed of at the Whale Tail Hazmat area