



WHALE TAIL PROJECT

## **Monitoring Program Summary Report**

**October 2021**

Type A Water License 2AM-WTP1830

Table of Contents

SECTION 1 • BACKGROUND ..... 3

SECTION 2 • WATER MANAGEMENT ..... 4

2.1 WATER USAGE .....4

2.2 LAKE WATER MONITORING .....4

2.3 WHALE TAIL SOUTH CHANNEL.....4

2.4 WHALE TAIL DIKE SEEPAGE MONITORING .....4

2.5 SEWAGE TREATMENT PLANT .....4

2.6 WHALE TAIL/IVR ATTENUATION PONDS .....5

SECTION 3 • SPILL MANAGEMENT ..... 7

## **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 Pit Project.

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: October 2021 – Freshwater Usage (m<sup>3</sup>)**

Water Location	Source Lake	Jan	Feb	March	April	May	June
Camp	Nemo	2,713	2,428	2,823	2,827	2,759	2,642
Construction/Operation	Nemo	2,074	2,184	2,287	2,319	2,273	1,534
Dust Suppression	Nemo / WTHR Pond	0	0	0	0	0	4,830
Explosive	Mammoth Lake	0	0	0	0	0	0
Drilling	Proximal Sources	0	0	0	0	0	0
<b>Total Freshwater Usage (m<sup>3</sup>)</b>		<b>4,787</b>	<b>4,612</b>	<b>5,109</b>	<b>5,146</b>	<b>5,032</b>	<b>9,006</b>

Water Location	Source Lake	July	Aug	Sept	Oct	Total
Camp	Nemo	2,836	2,913	2,818	2,908	<b>27,667</b>
Construction/Operation	Nemo	1,823	1,443	2,314	2,247	<b>20,498</b>
Dust Suppression	Nemo / WTHR Pond	6,000	350	0	0	<b>11,180</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>10,659</b>	<b>4,706</b>	<b>5,132</b>	<b>5,155</b>	<b>59,345</b>

### 2.2 LAKE WATER MONITORING

Lake around the Whale Tail Project were monitored on a monthly basis during the open water season. In October, 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 operational in October. An estimated 218,411 m<sup>3</sup> of water flowed from Whale Tail South Basin to Mammoth Lake. Weekly inspections were performed, and no non-compliance were observed during the month.

### 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 Whale Tail 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 October. A total of 2913.8 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 October in Whale Tail South Lake. Discharge in Whale Tail South permanent diffuser was from October 2 to 26. Water was treated by the Water Treatment Plan before discharge. A total of 350,384 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 October related to this discharge 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 Diffuser (ST-WT-24)**

Parameter	Maximum Authorized Concentration Grab Sample	Maximum Authorized Monthly Mean Concentration	Unit	Sample Date					Monthly Average
				10/2/2021	10/4/2021	10/11/2021	10/18/2021	10/25/2021	
Field Measured									
pH	6.0 - 9.5	6.0 - 9.5	pH units	6.46	7.23	7.85	6.66	6.53	6.95
Conventional Parameters									
Total suspended solids	30	15	mg/L	2	2	< 1	2	3	1.9
Nutrients									
Total phosphorus	0.6	0.3	mg/L	0.0062	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.00164
Total ammonia (NH3-N)	32	16	mg/L	0.60	0.57	0.69	0.54	0.23	0.53
Total Petroleum hydrocarbons (TPH) *									
F2 (C10-C16)	6	3	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.05
F3 (C16-C34)			mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.1
F4 (C34-C50)			mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.1
Total Metals									
Aluminum	1	0.5	mg/L	0.0094	0.0081	0.0091	0.0052	0.0058	0.0075
Arsenic	0.2	0.1	mg/L	0.00593	0.00550	0.00270	0.00353	0.00291	0.00411
Cadmium	0.004	0.002	mg/L	0.000025	0.000018	0.000019	0.000026	0.000023	0.000022
Chromium	0.04	0.02	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0005
Copper	0.2	0.1	mg/L	0.00097	0.00085	0.00093	0.00083	0.00074	0.00086
Iron	2	1	mg/L	0.308	0.203	0.211	0.238	0.365	0.265
Lead	0.1	0.05	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00010
Mercury	0.008	0.004	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	0.000005
Nickel	0.5	0.25	mg/L	0.0183	0.0218	0.0236	0.0245	0.0175	0.0211
Zinc	0.2	0.1	mg/L	0.0098	0.0065	0.0057	0.0092	0.0083	0.0079

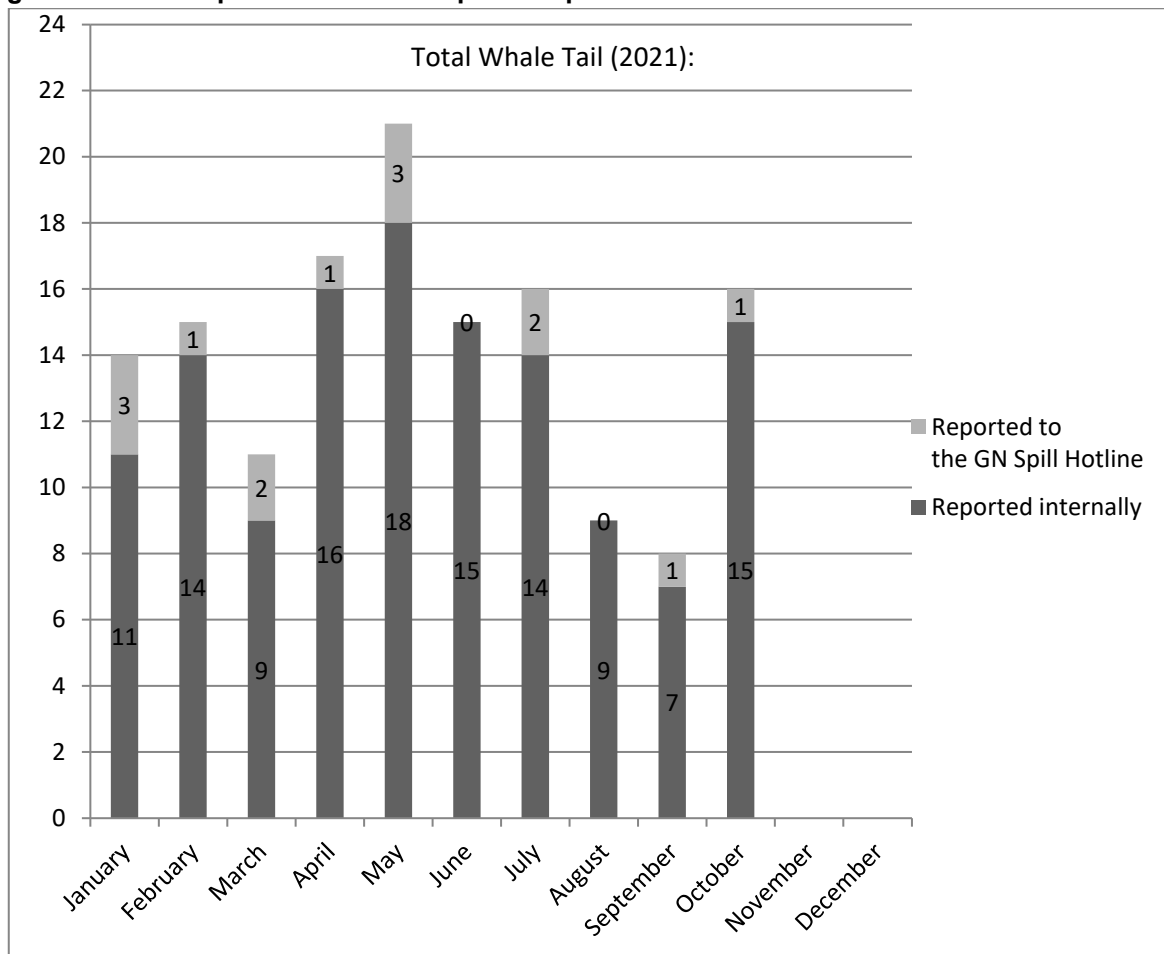
\* Analysis for TPH was done as fractions by the lab. The fractions analyzed equal total petroleum hydrocarbon. All results were below detection limits.

### 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 October.

Sixteen (16) spills occurred on site during the month with one (1) 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 2021 Reported and Non-Reported Spills**



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

Date of Spill	Hazardous Material	Qty	Units (L / Kg)	Location	Cause of spill	Clean-up action taken
10/5/2021	Hydraulic Oil	85	L	IVR Waste Dump	Broken hydraulic cylinder	A berm was pushed up to contain the spill and contaminated soil was picked up and disposed in the yellow bin.
10/9/2021	Hydraulic oil	50	L	Whale Tail Pit	Broken hydraulic hose	Absorbent pads were put in place and contaminated soil was picked up and disposed of in the yellow bin.
10/10/2021	Engine oil	45	L	Whale Tail Pit	Equipment failure	Absorbent pads used and contaminated soil was scraped up and collected with a loader. Contaminated soil was adequately disposed of in a yellow bin.
10/13/2021	Hydraulic Oil	53	L	Whale Tail Pit	Broken hydraulic hose	Contaminated soil was scraped up and adequately disposed of in a yellow bin.
10/13/2021	Hydraulic oil	20	L	Amaruq Sana Laydown	Hydraulic hose disconnected too rapidly	Hydraulic hose was plugged and absorbent pads were used. Contaminated soil was adequately disposed of in a yellow bin.
10/14/2021	Transmission Oil	40	L	Whale Tail Pit	Broken transmission line	Contaminated soil was scraped up and adequately disposed of in a yellow bin.
10/15/2021	Diesel Fuel	40	L	Truck Parking	Spill noticed during inspection	Spill was cleaned up by 980 loader and contaminated soil adequately disposed of in a yellow bin.
10/16/2021	Coolant	15	L	Whale Tail Pit	Broken coolant line	Engine was stopped. Contaminated soil was picked up and adequately disposed of a yellow bin.
10/17/2021	Hydraulic Oil	10	L	Washroom Parking	Broken hydraulic hose	Engine was stopped. Contaminated soil was picked up



Type A Water License 2AM-WTP1830  
Monitoring Program Summary Report

						and adequately disposed of a yellow bin.
10/19/2021	Coolant and Hydraulic Oil	80	L	Washroom parking	Broken hydraulic and coolant hose	Mechanic was called to fix the hose. Contaminated soil was adequately disposed of in a yellow bin.
10/19/2021	Diesel	20	L	Washroom Parking	Fuel leak	Contaminated soil was scraped up and adequately disposed of in a yellow bin.
10/20/2021	Hydraulic Oil	50	L	Fountain Tire Yard	Broken hydraulic hose	Haul truck was brought to the mechanic shop to fix the hose. Contaminated soil was picked up brought to a yellow bin for disposal.
10/20/2021	Hydraulic Oil	10	L	Washroom Parking	Broken hydraulic hose	Contaminated soil was scraped up and adequately disposed of in a yellow bin.
10/21/2021	Hydraulic Oil	250	L	Whale Tail Pit	O-ring failure	The contaminated material was collected and adequately disposed of at the Meadowbank landfarm.
10/21/2021	Hydraulic Oil	10	L	Whale Tail Pit	Broken hydraulic hose	Mechanic was called to fix the hose. Contaminated soil was collected and adequately disposed of in a yellow bin.
10/22/2021	Diesel Fuel	20	L	Mammoth Pump Shack	Leak from improperly joined hoses	Hose was tightened to stop the leak. Excavator was used to remove the contaminated soil which was adequately disposed of in a yellow bin.