

June 29<sup>th</sup>, 2022

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O Box 119
Gjoa Haven
NU XOB 1JO

# Re: 2AM-WTP1830 Agnico Eagle Mines – Whale Tail Project Responses to A47-N Sump Design Report Comments

Dear Mr. Dwyer,

As requested, the following responses are intended to address the comments made in the below letter:

- June 15, 2022; Meadowbank Complex Whale Tail A47-N Sump Design Report KIA Comments Water Licence 2AM-WTP1830.
- June 16, 2022; Review of Whale Tail Pit A47-N Sump Design Report for Type "A" Water Licence No. 2AM-WTP1830 CIRNAC's Comments.

Should you have any questions or require further information, please do not hesitate to contact us.

Regards,

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**Compliance Counselor** 

#### 1 KIA Comments

**Question 1:** The KIA would like to know if 2021 was a below average, average or above average year for precipitation based on the years that the Whale Tail mine site has been operating. This will help to better determine if the planned volume of the sump will prevent contact water from entering the open pit.

**Question 2:** 5040 m<sup>3</sup> of material will be removed from the sump, but will be backfilled with approximately 1500 m<sup>3</sup> of NAG rockfill, resulting in a capacity of ~3500 m<sup>3</sup>. Is this volume sufficient to contain a year of above average precipitation?

**Question 3:** Should the contact water overtop the sump, would the pit ring road prevent water from reaching the open pit?

**Question 4:** What would the increase in volume be for the sump if the height of the pit ring road was included?

#### Agnico Eagle's Response:

The purpose of the A47-N sump is to intercept runoff water before it reaches the IVR Pit to minimize the amount of water to be managed within the IVR Pit and to ease mining operations. Without this sump, the water reporting in that area would flow through the ring road as it is not a water retaining infrastructure and be managed within the IVR Pit footprint. The pumping infrastructure in the IVR Pit is sized to manage such water and pump it toward the IVR Attenuation Pond, however it is more efficient for mining operations to manage this water before it reaches the pit to minimize the amount of water ponding on drill patterns.

The A47-N sump is designed to have an effective capacity of 5,040 m<sup>3</sup> after excavation and rockfill placement, which allows to manage a 1:100 year peak flow event without having water reporting to IVR Pit. Year 2021 was an above average year for precipitation based on the years that the Whale Tail mine site has been operating.

#### 2 CIRNAC Comments

### 2.1 Water Quality Monitoring:

**Comment**: As part of the surface water management strategy described in section 2.4 of the new A47-N sump design report, AEM states:

"All water reporting to the sump area during and after the construction of the sump, shall be pumped through a system of piping and redirected in the IVR attenuation pond. The current report is limited to the sump design. Subsequently, water from the IVR attenuation Pond is to be treated by the site Water Treatment Plant (WTP) before any discharge to the environment as per the Water Licence requirement" Before water is subsequently sent for treatment at the site Water treatment Plant (WTP), CIRNAC requests that AEM provide information as to how it intends to monitor water quality in the sump during and after

construction; as well as in the IVR-attenuation pond. The water quality monitoring information should include a description of the monitoring time-table.

**Recommendation:** (R-01) CIRNAC recommends that AEM provide a water quality monitoring description for; (a) water in sump during and after construction; (b) water in IVR-attenuation pond. CIRNAC also recommends that AEM report this information in future Annual Reports.

### Agnico Eagle's Response:

The purpose of the A47-N sump is to intercept runoff water from the watershed before it reaches the IVR Pit to minimize the amount of water to be managed within the IVR Pit and ease mining operations. Without this sump the water reporting in that area would flow through the ring road and be managed within the IVR Pit and pumped to the IVR attenuation Pond as per the approved water management plan and water quality monitoring strategy.

The water expected to be captured in sump A-47-N is from the surrounding watershed. At no point during construction will any surface runoff directly or in-directly enter a Water body. During operation or construction, water reporting to this sump will be managed within the approved area for contact water management on site (either overflowing to IVR Pit by gravity or to the IVR Attenuation Pond by pumping). The water quality monitoring strategy for the IVR Attenuation Pond is already included in the water license 2AM-WTP1830 under the station ST-WT-23, as well as IVR pit sump under the station ST-WT-18. The monitoring of both of these stations eliminates the need to have an established monitoring station in the A47-N sump.

## 2.2 Sump Excavation Rubble Management:

**Comment**: In Section 2.3 of the Whale Tail A47-N Sump design report, AEM provided a "brief description" of how the new A47-N Sump will be constructed and how it intends to manage the expected "rubble" resulting from the sump excavation process. Contrary to the requirement for the provision of a "detailed" report by the NWB Water Licence 2AM- WTP1830, AEM did not provide "detailed" information as to how it intends to certify the Geochemical status of the expected rubble from the sump excavation work which is thus classified as "waste rock" in the new A47-N Sump Report (see Section 2.3; Lines 2 and 3 respectively).

Part D, Item 3(c) of the Water Licence 2AM-WTP1830 states: "The detailed report referred to in Part D, Items 1 and 2 shall include: Geochemical analysis of Waste Rock and fill, demonstrating the Acid Rock Drainage and Metal Leaching characteristics of these materials"

**Recommendation:** (R-02) CIRNAC recommends that AEM conduct a Geochemical analysis of the expected rubble from the sump excavation work to show the Acid Rock Drainage and Metal Leaching characteristics of the rubble and report this information in future Annual Reports.

# Agnico Eagle's Response:

The excavation material from the A47-N sump will be classified geochemically to determine the acid rock drainage and metal leaching characteristics of the material as per the approved Whale Tail Pit ARD-ML Sampling Plan under the 2AM-WTP1830 Water Licence.