



August 22, 2024

Nunavut Water Board
Ali Shaikh
PO Box 119
Gjoa Haven, NU X0B 1J0

Re: Type A Water Licence 2AM-MEA1530 – Operational Notice of the Development of a Site-Specific Water Quality Objective for Total Dissolved Solids

Dear Mr. Shaikh,

Agnico Eagle Mines Limited (Agnico Eagle) is writing to the Nunavut Water Board (NWB) to provide an operational notice for the Meadowbank Mine under Part E and Part F of the Water Licence (2AM-MEA1530), with respect to annual predictions of water quality in the pits (Pit E and Goose Pit) during Operations showing measured concentrations of Total Dissolved Solids (TDS) exceeding the forecasted model predictions by more than 20%.

As part of the Water Licence, specific conditions outline notification and action plan requirements from Agnico Eagle. Specific to this notice, Agnico Eagle has identified the following Water Licence conditions that are applicable to this operational notice (emphasis added).

Part E, Item 9: The Licensee shall, on an annual basis during Operations and Closure, compare the predicted water quantity and quality within the pits, to the measured water quantity and quality. Should the difference between the predicted and measured values be 20% or greater, then the cause(s) of the difference(s) shall be identified and the implications of the difference shall be assessed and reported to the Board.

Part E, Item 7: The Licensee shall submit a Water Management Plan on an annual basis to the Board for review following the commencement of Operations. The Plan must include an updated Water Balance. The Water Management Plan shall include an action plan to be implemented if predicted re-flooded pit water quality indicates that treatment is necessary. The Licensee shall not breach dikes until the water quality in the re-flooded area meets CCME Water Quality Guidelines for the Protection of Aquatic Life, baseline concentrations, or appropriate site-specific water quality objectives. Subject to the Board approval, if water quality parameters are above CCME Guidelines, a site-specific risk assessment must be conducted to identify water quality objectives that are protective of the aquatic environment.

Causes associated with measured concentrations of TDS exceeding forecasted model predictions in the pits by more than 20% were identified to be related to measured water levels that were either higher or lower than predicted in the model, and/or increased/decreased infiltration rates from surface runoff resulting in increase/decrease in contaminant loadings depending on the year in question (see Section 4.4.3.1 of the 2023 Annual Report, (included as Appendix A in this notification). The implications of increasing contaminant loading would be the risk of not being able to meet the Pit water quality criteria at closure.

As a result, Agnico Eagle has developed an Action Plan; this plan is outlined in Section 4.1 and Appendix F of the attached Water Management Plan (included as Appendix B in this notification) to address the implications of increased TDS loading predictions. The Action Plan begins with the development of an appropriate site-specific water quality objective (SSWQO).

The current concept for Portage and Goose area flooding at closure is to move as much water as possible to Vault Pit, treat for any deleterious substances above criteria (if required) by using a water treatment plant (WTP), prior to discharge to Wally Lake (ST-10) through the Vault Attenuation Pond as identified in Part F, Item 4 of the Licence. Agnico Eagle has taken steps to develop a Site-Specific Water Quality Program for future Effluent Release that includes:

- a. an acute toxicity assessment at the point of discharge (EQC);
- b. a chronic toxicity assessment at the edge of mixing zone (SSWQO); and
- c. an evaluation of assimilation capacity in the receiving environment.


The interim EQC and SSWQO are presented in Section 4.1 and Appendix F of the Water Management Plan. The goal of the Action Plan is to develop monitoring criteria that are both operationally achievable and environmentally protective of the aquatic receiving environment throughout all phases of mining (Operations, Closure, and Post-closure).

Once the supporting studies are completed, final EQC and SSWQO will be provided, along with an evaluation of the assimilative capacity in the receiving environment. This information will be presented as an addendum to a future Water Management Plan update.

Agnico Eagle thanks the NWB for their review of this operational notice under Water Licence 2AM-MEA1530. Agnico Eagle is committed to responsibly manage waste and water resources to minimize or eliminate potential effects to the environment in accordance with the Water Licence, Project Certificate No. 004, and objectives as outlined in Management Plans for the Meadowbank Mine.

Should you have any questions, please do not hesitate to contact me.

Sincerely,



Colleen Prather
Permitting & Regulatory Affairs Superintendent
Agnico Eagle Mines Limited

Attached:

Appendix A: Meadowbank Complex 2023 Annual Report
Appendix B: Meadowbank Water Management Plan V13