



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
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Your file - Votre référence
2AM-MEL1631
Our file - Notre référence
GCdocs #99463158

December 8, 2021

Mr. Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
sent via e-mail: licensing@nwb-oen.ca

**Re: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC's)
Review of Meliadine Mine Pond Draining/Dewatering Activity Proposal
submitted by Agnico Eagle Mines (AEM) for Type "A" Water Licence No. 2AM-
MEL1631**

Dear Mr. Dwyer,

Thank you for your November 26, 2021 invitation to review the Meliadine Mine pond draining/dewatering activity proposal submitted by AEM for Type "A" Water Licence No. 2AM-MEL1631

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

CIRNAC appreciates the opportunity to participate in this review. If there are any questions, please contact John Onita at john.onita@rcaanc-cirnac.gc.ca; or (867) 975-3876 or Andrew Keim at (867) 975-4550 or andrew.keim@rcaanc-cirnac.gc.ca

Sincerely,

John Onita
Regional Water Coordinator



Technical Review Memorandum

Date: December 8, 2021

To: Richard Dwyer, Manager of Licensing, Nunavut Water Board

From: John Onita, Regional Water Coordinator, CIRNAC

**Subject: Crown-Indigenous Relations and Northern Affairs Canada's
(CIRNAC's) Review of Meliadine Mine Pond Draining/Dewatering
Activity Proposal submitted by Agnico Eagle Mines (AEM) for Type
"A" Water Licence No. 2AM-MEL1631**

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

Agnico Eagle Mines Limited (AEM) Meliadine Gold Mine Project is located near the western shore of Hudson Bay in the Kivalliq Region of Nunavut, approximately 25 km north of Rankin Inlet, 80 km southwest of Chesterfield Inlet, and 290 km southeast of the Meadowbank mine. The Project site is situated on a peninsula amongst the east, south, and west basins of Meliadine Lake (63°1'23.8"N, 92°13'6.42"W), on Inuit owned land. The 111,358-hectare property covers an 80-km-long greenstone belt. A 24-km All-Weather Access Road (AWAR) (built in October 2013) links the Meliadine project site with Rankin Inlet. AEM was issued a water licence for this project by the Nunavut Water Board (NWB) on April 15, 2016. The mine commenced its commercial production on May 14, 2019. The project is anticipated to have a mine life of about 14 years with potential for extension to 25 years should more ore be identified.

AEM has notified the NWB that it intends to drain/dewater certain ponds located within the Meliadine mine infrastructure footprint (namely, A40, B33, B33A, A9, A38, J6, J5, and J4).

The various components and activities associated with the Meliadine Mine project require an authorization from the NWB Type "A" Water Licence 2AM-MEL1631. Thus, Part B, Item 9 of the Water Licence states that:

"The Licensee shall notify the Board of any changes in Project phases and/or operating plans or conditions associated with this Project at least sixty (60) days prior to any such change"

In the notice of an activity letter to the NWB, AEM states that the proposed draining/dewatering of these water bodies was included as part of approved activities under Type "A" Water Licence 2AM-MEL1631 condition, Part A, Item 1, which states:



“The Licensee may conduct mining, milling and associated activities at the Meliadine Gold Project in the Kivalliq Region of Nunavut, located at the following general geographic coordinates [...] and including, in general, as follow [...] dewatering of Lakes A54, H17, H19 and H20, and draining of ponds.”

AEM has requested that the NWB confirm this interpretation.

CIRNAC provides the following comments and recommendations pertaining to the proposed Meliadine Mine pond draining/dewatering activity. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.

Table 1: Summary of Recommendations

Recommendation Number	Subject
R-01	Water volume
R-02	Water transfer

B. DOCUMENTS REVIEWED

The following table (Table 2) provides a summary of the documents reviewed under the submission.

Table 2: Documents Reviewed

Document Title	Author, File No., Rev., Date
211126 2AM-MEL1631 Dewatering & Draining of Site Ponds Notice of Activities-IMLE	Agnico Eagle Mines (AEM); Re: Notice of Activity – Draining/Dewatering of Ponds; November 26, 2021

C. RESULTS OF REVIEW

CIRNAC provides the following comments and recommendations for the Board's consideration:



1. Water volume

Comment:

Tracking and maintaining records of water volume extracted from each of the ponds designated for draining/dewatering, is pivotal to understanding the potential impacts that the proposed draining/dewatering activities would have on the respective transfer destinations' water holding capacities.

Recommendation:

(R-01) CIRNAC recommends that, at the start of the draining/dewatering activities, AEM should track and provide daily, monthly and annual records of water drained from each of the ponds designated for draining within the Meliadine mine infrastructure footprint (namely ponds, A40, B33, B33A, A9, A38, J6, J5, and J4).

2. Water transfer

Comment:

CIRNAC observes that AEM did not provide any information on where it intends or has been permitted by the NWB to transfer water volumes expected from the proposed draining activities of the eight (8) ponds within the Meliadine mine infrastructure footprint (namely ponds, A40, B33, B33A, A9, A38, J6, J5, and J4).

CIRNAC reviewed the Water Licence 2AM-MEL1631 and notes that AEM is required in Schedule B, Item 3, to provide;

“Monthly and annual volume of fresh water transferred to Meliadine Lake as a result of dewatering activities”

Based on this water licence condition, CIRNAC seeks AEM's clarification on whether it intends to transfer all water volumes from the listed ponds to Meliadine Lake during the draining activities or whether AEM intends to transfer to water bodies other than Meliadine Lake.

CIRNAC is concerned that without putting in place adequate plans, the transfer of water from ponds designated for draining, into other water bodies, could increase the water volume above the holding capacity in these recipient water bodies and cause flooding to occur within the vicinities of these recipient water bodies.



Recommendation:

(R-02) CIRNAC recommends that AEM:

- a) Provide a dewatering plan indicating mitigation measures against potential flooding concerns in respective recipient water bodies within the Meliadine mine infrastructure footprint as a result of the proposed pond draining activities;
- b) Clarify whether it intends to transfer all water volumes from the listed ponds into Meliadine Lake as permitted by the Water Licence or not;
- c) Provide information on the water transfer process and respective transfer destinations for each water body of interest designated for dewatering.

D. REFERENCES

Agnico Eagle Mines (AEM); Re: Notice of Activity – Draining/Dewatering of Ponds;
November 26, 2021

Department of Crown-Indigenous Relations and Northern Affairs Act (2000)

Nunavut Waters and Nunavut Surface Rights Tribunal Acts (2016); *Nunavut Water Board*