



Water Resources  
Nunavut Regional Office  
P.O. Box 100  
Iqaluit, NU, X0A 0H0

July 13, 2015

AANDC reference  
CIDM# 925940

NWB reference  
#2AM-MEL----

Robin Ikkutisluk  
Licence Administrator Assistant  
Nunavut Water Board  
Gjoa Haven, NU, X0E 1J0

**Re: Aboriginal Affairs and Northern Development Canada Completeness review of  
Agnico Eagle Mine Ltd.'s Application for a New Type A Water Licence, No. 2AM-  
MEL**

Dear Ms. Ikkutisluk,

Thank you for your email on June 12, 2015, concerning the above mentioned water licence application process.

A memorandum is provided for the Nunavut Water Board's (Board or NWB) consideration. Comments have been provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4282 or email at [ian.parsons@aandc-aadnc.gc.ca](mailto:ian.parsons@aandc-aadnc.gc.ca) for further comments or any questions.

Sincerely,

Ian Parsons  
Regional Coordinator, B.Sc.  
Aboriginal Affairs and Northern Development Canada  
P.O. Box 100  
Iqaluit, NU, X0A 0H0

c.c.: Andrew Keim, A/Manager Water Resources, Nunavut Regional Office (NRO),  
AANDC  
Erik Allain, Manager of Field Operations, NRO, AANDC

## Memorandum

To: Phyllis Beaulieu, Nunavut Water Board

From: Amjad Tariq, Regulatory and Science Advisor, Water Resources Division, AANDC  
Ian Parsons, Regional Coordinator, Water Resources Division, AANDC

CC: Andrew Keim (AANDC), Erik Allain (AANDC), Christine Wilson Water Resource Officer (AANDC)

Date: July 11, 2015

**Re: Aboriginal Affairs and Northern Development Canada Completeness review of Agnico Eagle Mine Ltd.'s Application for a New Type A Water Licence, No. 2AM-MEL**

Applicant:	Agnico Eagle Mine Ltd.
Project:	Meliadine Gold Project
Region:	Kivalliq

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### A. Background

On June 12, 2015 the Nunavut Water Board (the 'NWB' or 'Board') distributed Agnico Eagle Mines Limited's (the 'Proponent') application for a type A water licence to allow for the use of water and disposal of waste associated with their Meliadine Gold Project (the Project). The Proponent has requested that the licence have a fifteen (15) years term.

The Proponent is developing the Project, located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. The proposed project site is situated on the western shore of Hudson Bay (on a peninsula between the east, south, and west basins of Meliadine Lake, on Inuit owned lands). Furthermore, the site falls within the Meliadine Lake watershed of the Wilson Water Management Area (Nunavut Water Regulations Schedule 4).

The proposed mine plan includes open pit and underground mining methodologies for the development of the Tiriganiaq gold deposit, with two open pits mines (Tiriganiaq Pit 1 and Tiriganiaq Pit 2) and one underground mine. The mine will produce approximately 12.1 million tonnes (Mt) of ore, 31.8 Mt of waste rock, 7.4 Mt of overburden waste, and 12.1 Mt of tailings.

There are four phases to the development of Tiriganiaq (phase one) as follows:

1. Construction phase (4 years)
2. Mine operation (phase one) (8 years)
3. Closure phase (3 years)
4. Post-closure phase

The mining facilities include a plant site and accommodation buildings; three ore stockpiles; a temporary overburden stockpile; a tailings storage facility (TSF); three waste rock storage facilities (WRSFs); a water management system that includes collection ponds, water diversion channels, and retention dikes/berms; and a Water Treatment Plant (WTP). Approximately 62,000 m<sup>3</sup>/year of freshwater will be required during the construction phase, and approximately 318,000 m<sup>3</sup>/year of freshwater will be required during operations. Additional approximately 4,000,000 m<sup>3</sup>/year of freshwater will be required to fill the mined-out open pits.

The development of some of the facilities, such as a tank farm and laydown area, will take place at Itivia, south of the Hamlet of Rankin Inlet, where materials will be received by air and sea transport. A year-round access between Rankin Inlet and the mine site will be facilitated by a bypass road around Rankin Inlet and an All-weather Access Road (AWAR) to the proposed mine site.

The following plans have been provided by the Proponent as a part of the application.

- Mine Plan
- Water Management Plan
- Ore Storage Management Plan
- Mine Waste Management Plan
- Landfill and Waste Management Plan
- Landfarm Management Plan
- Hazardous Materials Management Plan
- Incineration Management Plan
- Roads Management Plan
- Borrow Pits and Quarries Management Plan
- Explosives Management Plan
- Risk Management and Emergency Response Plan
- Spill Contingency Plan
- Aquatics Effects Monitoring Program Design Plan
- Preliminary Closure and Reclamation Plan
- Environmental Management and Protection Plan

The total estimated financial security for the Project is \$47,449,337. The cost estimate has been prepared using RECLAIM Version 7.0, March 2014 and covers the closure and reclamation of all the facilities for a permanent closure of the Project.

Interested parties were asked to review this application for completeness and initial technical assessment. Furthermore, interested parties were invited to comment on the type of Technical Meeting and Pre-Hearing Conference that will be held following the upcoming technical review phase (i.e., written, teleconference, or in person).

The NWB requested that intervening parties provide written submissions by July 11, 2015.

## **B. Result of Review**

On behalf of Aboriginal Affairs and Northern Development Canada (AANDC), the following comments and recommendations are provided.

## **1. Complete application**

The submitted licence application is considered to be complete since the requirement of the NWB's Guide # 4: Completing and Submitting a Water Licence Application for a new Licence (NWB 2010) appears to be satisfied. Concordance has been assessed for the requirement of the NWB Guidelines and the Supplemental Information Guide for Mining and Milling.

## **2. Additional Management Plans**

- **Freshet Action Plan**

**Comment:**

A Freshet Action Plan identifies areas of concern around the mine site that will be required to be managed in an organized manner during the annual freshet period to prevent adverse environmental impacts. The freshet period typically occurs during the annual snow and ice melt (May to July). Excess water is generated during this period that must be managed through additional measures (pumping and other management practices) at vulnerable areas around the mine site.

**Recommendation:**

The Proponent should provide a Freshet Action Plan with details on mitigation techniques and timeframes to cope with possible impact during the annual freshet period.

- **Groundwater Monitoring Plan**

**Comment:**

Groundwater data obtained from monitoring wells can be used to predict the chemistry of water accumulating in open pits (particularly salinity as chloride, total dissolved solids and conductivity), as well as to determine any effects of the mining activities on groundwater quality.

**Recommendation:**

The Proponent should provide a Groundwater Monitoring Plan for Board's consideration.

- **Acid Rock Drainage/Metal Leaching Testing and Sampling Plan**

**Comment:**

Acid Rock Drainage/Metal Leaching (ARD/ML) Testing and Sampling Plan provides the

details on sampling, analysis and testing procedures that are to be implemented at the mine site. The plan will define the acid generating and metals leaching potential of the waste rock. Such characterization will be used to segregate and manage materials in an environmentally appropriate manner.

**Recommendation:**

The Proponent should provide an Acid Rock Drainage/Metal Leaching Testing and Sampling Plan.

- **Fuel Management Plan**

**Comment:**

Agnico-Eagle makes reference to fuel storage at both Rankin Inlet and at the Meliadine mine site yet there seems to be no fuel management plan with the licence application

**Recommendation:**

Please submit to the NWB a Fuel Management Plan.

- **Alternatives Assessment Report/Plan**

**Source:** Agnico Eagle Meliadine Gold Project, Type A Water Licence Application, Main Application Document, April 2015

**Comment:**

In the Main Application document, Agnico-Eagle makes reference to the Alternatives Assessment Report which was submitted to NIRB as part of their Final Environmental Impact Statement (FEIS).

**Recommendation:**

As this is not a coordinated process Agnico-Eagle should submit a revised alternatives assessment to the NWB which would reflect only alternatives assessments of components affecting/possibility affecting water quantity/quality.

### **3. Approvals/Authorizations**

*Source: Agnico Eagle Meliadine Gold Project, Type A Water Licence Application, Main Application Document, April 2015*

**Comment:**

Block 6 of the General Water Licence Application states that a full list of land use permits, leases and authorizations for the Project is provided in the accompanying Type A Water Licence Main Application Document, Appendix B, Table 2.4. This list includes dates of issuance and dates of expiry.

AANDC is concerned that the dates of issuance and expiry of the permits, leases and authorizations are not provided in the Table 2.4. Moreover, several other Meliadine project licences, permits, authorizations and agreements listed in Table 2.3 (issuance and expiry dates are provided) are expired.

**Recommendation:**

The Proponent should provide the dates of issuance and expiry for all the permits, leases and authorizations.

### **C. Technical Meeting and Pre-Hearing Conference**

The NWB Technical Meeting and Pre-Hearing Conference should be held in person. In person meetings are recommended because it would allow intervening parties, the Proponent, and NWB staff to address issues related to the Meliadine Gold Project.

*Prepared by Amjad Tariq and Ian Parsons*