



February 9th, 2017

Sophia Granchinho  
Manager, Impact Assessment - Nunavut Impact Review Board  
29 Mitik St P.O. Box 1360  
Cambridge Bay, NU. X0B 0C0

**Re: NIRB File No. 11EN010 Application No: 125036 – Opportunity to address comments regarding Agnico Eagle's "Amaruq Exploration Access Road – Additional Quarry Amendment" Project Proposal**

Dear Ms. Granchinho,

Agnico Eagle thanks the Nunavut Impact Review Board, Government of Nunavut and Indigenous and Northern Affairs Canada for the opportunity to address their comments as part of the screening of the Amaruq Exploration Access Road – Additional Quarry Amendment.

As requested, please find attached responses which are intended to address the comments and recommendations in NIRB letter dated February 8<sup>th</sup>, 2017. Agnico Eagle will continue to work with the INAC on finalizing a closure plan for the 6 additional quarries along the approved Amaruq Exploration Access Road and will ensure the continued protection of wildlife, in particular caribou, during the construction and operation of the additional quarries.

Should you have any questions or require further information, please contact the undersigned Jamie Quesnel at [Jamie.quesnel@agnicoeagle.com](mailto:Jamie.quesnel@agnicoeagle.com) or, Ryan Vanengen at [ryan.vanengen@agnicoeagle.com](mailto:ryan.vanengen@agnicoeagle.com).

Regards,

Jamie Quesnel  
[Jamie.Quesnel@agnicoeagle.com](mailto:Jamie.Quesnel@agnicoeagle.com)  
819.856.8021.  
Environmental Superintendent – Nunavut

Ryan Vanengen  
[ryan.vanengen@agnicoeagle.com](mailto:ryan.vanengen@agnicoeagle.com)  
819.651.2974  
Amaruq Permitting Lead

cc. Ryan Barry, NIRB



## Indigenous and Northern Affairs Canada (INAC) Comments and Recommendations (Dated: February 1st, 2017)

### 1.1 INAC comment #1 public concern and consultation

INAC is unable to offer comments on whether the project amendment is likely to arouse significant public concern since the amendment application does not contain any detailed records of community engagement/consultation activities undertaken by the Proponent to discuss community concerns regarding the proposed new activities. INAC recommends that the Proponent provide the details of community consultations prior to the start of the new activities.

#### **Agnico Eagle's Response to 1.1:**

Agnico Eagle refers INAC to the original Amaruq Exploration Access Road screening comment response package that Agnico Eagle provided to NIRB on October 2<sup>nd</sup>, 2015 (response 1.3, Table 1 and Appendix B). During the site visits and community consultations, Agnico Eagle discussed the potential impacts associated with road construction and borrow sources within the local study area of the Amaruq Exploration Access road. In addition these information sessions, consultation and TK workshops are summarized in Section 6.0 Table 6.1-1 for the Amaruq Exploration Access Road (Agnico Eagle 2015<sup>1</sup>).

During the design and planning for these quarries, Agnico Eagle integrated information collected during the TK workshops and community sessions with details listed in Table 1 of the October 2<sup>nd</sup> submission. This played a key role in informing the location selection and design of the 6 additional quarries; as Agnico Eagle has avoided all archaeological sites. As a result, there are no predicted impacts to traditional land use nor archaeological sites as a result of this application. Furthermore, prior to quarry construction and operation, Agnico Eagle will conduct additional information sessions with the HTO and KIA regarding the proposed quarry locations.

**Table 1: Summary of Consultation to date – adapted from the October 2<sup>nd</sup>, 2015 submission**

Date	Description	Attendees
August 27, 2014	Meeting with Hunters and Trappers Organization representatives to present upcoming work on the proposed exploration access road at the Meadowbank Mine Site – reviewed the routing and requested input prior to finalizing construction plans	Hunters and Trappers Organization (HTO) and Agnico Eagle*
August 27, 2014	Pre-construction access road reconnaissance and fly over proposed route and stopped at Amaruq Exploration site with federal representatives	Environment Canada and Agnico Eagle
November 5, 2014	During the Meliadine Aquatic Effects Monitoring Program workshop, Agnico Eagle introduced the	Environment Canada, Aboriginal Affairs and

<sup>1</sup> Agnico Eagle. 2015. Application for a Type B Licence to construct the Amaruq Exploration Access Road Main Application Document. March 2015.



## AGNICO EAGLE

Date	Description	Attendees
	access road to local, territorial and federal representatives	Northern Development Canada (AANDC), HTO, and Agnico Eagle
December 2014	Traditional Knowledge workshop with Elders held in Baker Lake	Baker Lake Elders and Agnico Eagle**
January 2015	Meadowbank NWB Type A public meetings as part of the pre-hearing conference; Agnico Eagle presented preliminary exploration results at the Amaruq Exploration site and the available information on the proposed exploration access road	Public presentations open to the Kivalliq; KIA, AANDC, Baker Lake Hamlet, Chesterfield Inlet, Agnico Eagle
April 6- 16, 2015	Meetings hosted with federal and territorial regulators to discuss regulatory projects for Agnico Eagle including Amaruq exploration access road	AANDC, NIRB, NWB hosted by Agnico Eagle either by webex or in Iqaluit during the Nunavut Mining Symposium
April 7, 2015	Meetings with the HTO entirely in Inuktitut in Baker Lake to review plans for the 2015 field program	HTO and Agnico Eagle*
May 1 2015	Meeting with DFO in Yellowknife to discuss the access road application and exploration site culvert installations	Agnico Eagle and DFO*
July 6 2015	Informal site visit to Meadowbank and Amaruq Exploration Site. Flew the entire Amaruq Exploration Access Road with 4 HTO members, good conversations with no feedback from HTO	Agnico Eagle and HTO
July 9 2015	Presentation made to KIA and AANDC representatives during site visit	Agnico Eagle, AANDC water resource, KIA inspectors and consultant
September 8, 2015	Hosted a TK/ IQ workshop, archaeological site visit and Amaruq site visit with elders and archaeological consultant. Agnico Eagle intends to invite CLARC members, a KIA representative, HTO representatives.	CLARC, KIA rep, HTO*
September 9 and 10, 2015	Community sessions in Baker Lake hosted by NIRB.	Agnico Eagle, community members, elders, mayor, hto and NIRB representatives

\*meeting minutes and presentations in Appendix B of the October 2<sup>nd</sup>, 2015 submission.

\*\*summary report found on the NWB website: FTP directory

/1%20PRUC%20PUBLIC%20REGISTRY/8%20MISCELLANEOUS/8B/8BC%20-%20Construction/8BC-AEA---%20AEM/1%20APPLICATION/2015%20New/150316%208BC-AEA---



[%20Amaruq%20Access%20Road%20Final%20Amaruq%20TK%20report%20-%20version%202-IMLE/](ftp://ftp.nwb-oen.ca/%20Amaruq%20Access%20Road%20Final%20Amaruq%20TK%20report%20-%20version%202-IMLE/) at [ftp.nwb-oen.ca](ftp://ftp.nwb-oen.ca/)

## 1.2 INAC comment #2 – provide details on additional quarry closure plans

INAC notes that within the proposal there are plans to salvage soil for post closure reclamation of the quarry sites. However, other than citing INAC's 2010 "Northern Land Use Guidelines" for pits and quarries, there are no details provided on the remediation techniques to be applied during the quarry closure phase. INAC recommends that the Proponent provide this information and also outline, within the detailed reclamation plan, the expectations for the proposed post closure reclamation.

### **Agnico Eagle's Response to 1.2:**

Agnico Eagle refers INAC to NWB Type BC – AEA1525 License Part H: Conditions applying to reclamation and closure. Agnico Eagle will continue to adhere to these conditions related to quarry and borrow source reclamation as outlined in the "Conceptual Closure and Reclamation Plan – Amaruq Exploration Access Road" February 2015. Further to this, Agnico Eagle will continue to work with INAC to update the closure costs and bonding for the additional quarries. In the past, Agnico Eagle has worked closely with INAC to ensure adequate bonding is in place in a timely fashion. Agnico Eagle agrees with INAC recommendations and in consultation with INAC and Agnico Eagle will revise the cost estimate to reflect the use of the additional quarries.

## 1.3 INAC comment #3 – dust suppression in additional quarries and spur roads

Furthermore, no dust suppression mitigation measures are outlined within the project amendment. The addition of quarries and spur roads are likely to increase the propagation of dust which could negatively impact vegetation and wildlife. INAC recommends that the Proponent provide a Dust Control Plan.

### **Agnico Eagle's Response to 1.2:**

A dust control plan is included in the approved Amaruq Exploration Access Road Management Plan (RMP) (Agnico Eagle, March 2015). Control, suppression and other mitigative measures outlined in the RMP will be applied to the proposed spur roads and quarries for the operation of the additional quarries. This information is highlighted in Section 7 – Borrow Pit Management and Section 8.3 - Dust Suppression of the RMP which is a condition of NWB Type BC – AEA1525 License Part III.

## **Government of Nunavut (GN) Comments and Recommendations** **(Dated: February 6<sup>th</sup>, 2017)**

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### **2.1 GN Comment #1: Archaeological Studies**

Given that archaeological assessment studies have been conducted and that Agnico-Eagle has committed to avoiding all archaeological sites during exploration activities, the Department of Culture and Heritage has no concern with the proposed exploitation of the six quarries listed above.

#### **Agnico Eagle's Response to 2.1:**

Agnico Eagle appreciates the GN comments.

### **2.2 GN Comment #2 – Blasting: Mitigation for Wildlife**

First paragraph of page 26 of the Main Application Document mentions: "Sensory disturbances occurring during construction and road operation will result in effective habitat loss for the wildlife ecosystem components. The amount of effective habitat loss is measured in a zone of influence which is different for each ecosystem component depending on their sensitivity to disturbance. Ungulates, predatory mammals, and raptors will be most affected by sensory disturbance."

Further on page 26, it is mentioned: "Various mitigation measures to reduce sensory disturbances will be implemented, including:

- follow safe and approved blasting procedures,
- ensuring vehicles are properly muffled,
- limiting personnel access into adjacent habitat; and
- enforcing a 50 km/h speed limit."

The Main Application Document lacks detail on the frequency and intensity of sensory disturbances to wildlife by blasting activities, nor does it present estimates of habitat loss in the zones of influence of the quarries and spur roads. The blasting procedures mentioned in bullet 1 are not defined. It is to be noted that the Main Application Document for the Amaruq Exploration Access Road does not include any specific mitigation measures designed to avoid or minimize impacts on wildlife caused by blasting.

#### **Suggestions and recommendations:**

The GN requests that the Proponent provide the following information:

- The total area of the habitat loss (e.g. footprint) of the quarries and the spur roads, and their zones of influence.
- Daily rates of blasting (maximum and minimum) and decibel levels of noise generated.
- Measures that will be taken to establish blasting shutdown distances for both the safety of wildlife (i.e. the fly rock zone) and to minimize sensory disturbance; including the distance from, and animal's numbers/group size that will trigger a shutdown of blasting.
- Wildlife surveillance protocols and detection methods around the quarries.

### **Agnico Eagle's Response to 2.2:**

It is expected that the maximum number of blasts is once per day. Based on previous experience in constructing roads in Nunavut, blasts are likely to occur every three days, which represents the minimum. The total area of each quarry is noted in Table 2, below. Given the low frequency and magnitude of blasting in these additional quarries, and following the implementation of mitigative measures related to blasting, wildlife will be protected during blasting activities. As a result, no residual effects to wildlife are predicted related to the proposed quarry activities and therefore the zone of influence is not expected to change from the approved construction and operation activities of the Amaruq Exploration Access road.

Agnico Eagle will continue to be adhered to wildlife surveillance protocols that are currently being implementing on the Amaruq Access Road and described in the RMP. As noted by the GN, standard safety protocols around blasting to ensure the protection of wildlife and employee will be implemented. If surveillance, using the collaring data and wildlife surveys, determines that greater than 50 caribou are present within an area of 500 m from the road and quarries, additional monitoring will be conducted and a decision will be made in consultation with the HTO, KIA, Agnico Eagle environment staff and the blast supervisor to stop the blast, to ensure the protection of wildlife. As stated in Section 11 of the RMP, wildlife will have the right of way for all activities; therefore, a blast will be cancelled if caribou are nearby.

Additional information can be located in the NWB Type BC – AEA1525 License Part III – General Considerations and the approved “Road Management Plan (RMP) – Amaruq Exploration Access Road” (March 2015), in Section 7 – Borrow Pit Management and Section 11 – Wildlife management, which outlines Agnico Eagle's commitment to ensuring the protection of wildlife (and in particular caribou), for construction and operation of the Amaruq Exploration Access Road, including quarries and borrow areas. This plan will be updated to reflect the additional quarrying activities and submitted as part of the NWB and NIRB annual report submission.

**Table 2 – Total area of habitat loss of the proposed quarries**

<b>Quarry ID</b>	<b>Surface Area (ha)</b>	<b>Land Ownership</b>
Q 10+500	3.8921	IOL
Q 26+250	1.2745	CL
Q 30+050	1.8475	CL
Q 34+900	5.17	CL
Q 50+600	1.0842	CL
Q 52+000	1.0085	CL
<b>Total</b>	<b>14.28 ha</b>	



### 2.3 GN Comment #3: Road design

The proponent has determined that additional quarries are required for the construction of the Amaruq exploration access road, to reduce thaw susceptibility and to reduce potential road washouts along the road by armouring.

Improper design (e.g. shoulders constructed of blocky material and steep slopes) may deter animals, especially ungulates, from crossing roads and amplify its barrier effect. The Main Application Document does not describe how the original design of the road is modified and whether these modifications will improve the road's "permeability" for wildlife crossing.

#### **Suggestions and recommendations:**

The GN requests that the Proponent explain how the proposed modifications to the road design may improve or deteriorate wildlife crossing conditions with details on slopes, height of the road surface and material size.

#### **Agnico Eagle's Response to 2.1:**

The use of quarried material from the proposed additional quarries will not change the design of the road presented to NIRB and approved by the NWB in the Main Application Document (Agnico Eagle 2015) and in the "Road Management Plan (RMP) – Amaruq Exploration Access Road" Section 6 – Measures to prevent permafrost degradation. The road has been designed with a low profile that balances the safe travel of equipment, operators (according to the mine's act) and allows for the safe crossing of caribou and other wildlife. Please refer to Figure 6.1, 6.2 and 6.3 of the RMP for cross sectional profiles of the approved Amaruq Exploration Access road.