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May 20, 2011

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Nunavut Water Board P.O. Box 119 Gjoa Haven, Nunavut X0B 1J0

Attention: Phyllis Beaulieu

Manager, Licensing

Meliadine Gold Project- Water License Amendment Request Comments – All-Weather Road

The Kivalliq Inuit Association (KIA) has reviewed the proposed Amendment request and supporting documents for the Meliadine Gold Project and is pleased to provide the following comments.

KIA and its consultants GeoVector Management Inc have identified approximately 8 areas of concern that requires additional information. Areas of concern include monitoring and management plans related to ground ice, metal leaching, dust and public safety. The proponent also needs to consider snow pack accumulation along road side culverts, hydraulic characteristics of the Meliadine River bridge crossing and the potential impacts to wildlife.

Additionally, KIA would like to remind all parties of the obligations of Agnico- Eagle Mines Limited to enter into a Water Compensation agreement with the Designated Inuit Organization under Article 20, Part 3 of the Nunavut Land Claims Agreement prior to the issuance of the amended license.

### **Detailed Summary of Issues**

The detailed comments on the issues are summarized in the following text.

<u>Project Description - All Weather Road in Support of the Underground Program, Rankin Inlet</u> to the Meliadine Site Report

Section 3.1 Overview of Project Environment, Socio-economic and Traditional Knowledge Studies - Paragraph 2 on Page 24

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proponents experience with the impacts of building and operating the Meadowbank Gold Mine road.

The proponent will ensure that the all weather road from Rankin Inlet to the Meliadine site will be designed to be "caribou friendly". The design parameters should use the proponents experience with building and operating the Meadowbank Gold Mine road as well as the mining industry's experience building roads in areas such as at the Ekati and Diavik Diamond mines.

## Section 3.1 Overview of Project Environment, Socio-economic and Traditional Knowledge Studies - Paragraph 3 on Page 24

It states that the VEC of predatory animals would not be included as there would be a low probability that these would be affected by the road. However, any road development will have the potential for vehicle – caribou collisions causing caribou mortality. This could cause an increase in predatory animals, in particular wolves. Therefore, the collection of data on wolves should be included as part of the baseline study for this road.

### Section 3.2 (a) Permafrost – Impact and Mitigation - Paragraph 2 on Page 25

It states that granular material in the glaciofluvial deposits is largely free of ground ice.

The proponent will ensure that the monitoring and management plans submitted include actual details on how ground ice, if encountered, will be dealt monitored and managed.

### Section 3.3 (a) Aquatic Environment – Water Quality – Paragraph 1 on Page 33

It states that the ephemeral streams have had limited sampling for water quality. This work needs to be completed before the road is constructed.

### <u>Module 4 - Report on All Weather Access Road Meliadine Gold Project Feasibility Level</u> <u>Design</u>

### Section 4.6.2.2 Culvert Design - Paragraph 1 on Page 16

Culvert design also does not take into account snow packing from windblown snow, which is a significant problem in the area (The previous Char River culvert washed out the road each spring). The snow packing will inevitably block the spring run-off, increasing the water height and the pressure. The resulting eventual release will either be from washing out the road, or pushing out the snow pack at a much higher velocity than the design calls for.

The proponent needs to provide some detail on how the lessons learned and experienced gain with the building and operating the Meadowbank Gold Mine road will be used in the design and building of the all weather Rankin Inlet to Meliadine site road.

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#### Section 4.6.2.3 Bridge Abutment Design – Paragraph 2 on Page 18

It states here that hydraulic analysis at each bridge crossing location was completed to determine the capacity, flow depth and water velocity at the design peak flow at each bridge crossing. Future studies for the Meliadine River bridge crossing should determine the impact of peak high tides on ice bridging downstream of the bridge during the annual freshette that may block water flows. Additionally, impacts of ice damming upstream of the proposed bridge crossing will require further assessment consideration.

### <u>Module 2 - Report on Geochemical Assessment of Potential Road Construction Material</u> <u>Meliadine Gold Project, Nunavut</u>

### Section 3.3 Metal Leaching Potential – Arsenic, Copper and Cadmium Leachability- Pages 15 to 17

The water leach test results met MMER standards but are approximately twice the CWQG standards in some samples for arsenic and copper. The proponent needs to provide monitoring and management plans for dealing with any potential issues related to the metal leaching potential of the road construction materials.

It is also stated that because the road will be built on a height of land snow will be less likely to accumulate which would minimize the amount and time of contact water. In addition, the wind direction states that the dominant wind directions are from the north-northwest and north (Section 1.2., paragraph 2, page 2 in the report on All Weather Access Road Meliadine Gold Project Feasibility Level Design). A north-northwest wind direction would intersect the road from the area of the Char River bridge to crossing M11.5 at a high angle which creates a situation where snow can build up on the west side of the road would occur. A north wind direction would intersect the road from crossing M11.5 to the end of the road at a high angle which creates a situation where snow can build up on the south side of the road would occur.

The proponent needs to provide some detail on how the historical and current snow pack data from the immediate area of the Meliadine Project site and the experienced gain with operating the Meadowbank Gold Mine road, has been used in the current road design. In addition, a map showing potential areas of snow build-up should be provided, along with the monitoring and management plans for dealing with the impacts of snow build-up.

#### Section 2.3 (a) Road Route, Page 7

KIA understands the proposed road route is to start just after the Char River crossing and continue northward, however for review purposes, consideration to the municipal portion of the road should be assessed. Based on the existing municipal road network within the Hamlet of Rankin Inlet the increased traffic both during construction and operations will be of significant concern. The proposed fuel storage area and existing barge receiving area are both located at the southern most end of town, requiring all re-supply vehicles to pass through town on municipal roads.

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#### Section 3.2 Physical Environment- (c) Air Quality and Noise, Page 26

Mitigation measures for dust have been addressed for the proposed route however; like above, the section of municipal roads from the fuel storage area and barge receiving grounds to the Char River needs to be assessed. Increased dust in this area could pose concerns for vegetation, potential dust deposition in the drinking water supply, public transportation safety, dust/ wind erosion and community aesthetics. Alternative routing should be considered and assessed for those portions of municipal roads potential affiliated with the Meliadine all weather road.

KIA wishes to thank the Nunavut Water Board for including us in the review process. If you have any further questions or concerns please contact the undersigned at your earliest convenience.

Yours truly

Director of Lands