

REVISED DRAFT SCOPE LIST FOR THE NIRB'S ASSESSMENT OF THE MELIADINE GOLD MINE PROJECT

The scope of the NIRB's assessment of the Meliadine project proposal is based on the requirements of Sections 12.5.2 of the Nunavut Land Claims Agreement (NLCA), the NIRB's 10 Minimum EIS Requirements and the project proposal submitted by Agnico-Eagle Mines Ltd. (AEM or Proponent) on September 29, 2011.

The process of "scoping" intends to identify the possible range of impacts from a project, including the physical works and activities proposed, and the factors to be assessed (i.e., the ecosystemic and socio-economic factors and environments to be considered in assessing the effects of the project) in the context of spatial and temporal scales at various project stages including preconstruction, construction, operation, modification/maintenance, decommissioning, abandonment, reclamation and other undertakings. The NIRB will consult with the public and interested parties to identify Valued Ecosystem Components (VECs) and Valued Socio-Economic Components (VSECs) that should be addressed by the Proponent's Environmental Impact Statement.

In addition to its Meliadine Gold Mine Project Proposal, on September 29, 2011 AEM submitted an additional separate and stand-alone application for the construction and operation of a single lane all-weather road ("Phase 1") for consideration as a 12.10.2(b) exception to the NIRB's Review of the Meliadine project. Phase 1 is proposed to be used solely for the transportation of fuel and materials to the Meliadine site in support of the bulk sampling program that was previously screened by the NIRB per File No. 10EA018. The Phase 1 development of the road is therefore *not* included within the NIRB's *Draft* Scope of the Meliadine project. The NIRB has requested that interested parties provide comments regarding AEM's 12.10.2(b) exception application by November 21, 2011.

#### 1) Project Description, including the purpose and need for the Project

The scope of the development under review includes the physical works and activities or undertakings that constitute the Meliadine project proposal as submitted to the NIRB by AEM on September 29, 2011. Temporal scope for the Project will include each stage of the project, including construction, operation, maintenance, temporary closure (care & maintenance), final closure (decommission & reclamation) and post-closure periods, planned exploration to be undertaken in conjunction with the Project.

# **Project Proposal Summary**

The Meliadine Project is a proposed gold mining and milling operation located in the Kivalliq region, approximately 25 kilometres (km) northwest of Rankin Inlet. The mine and mill will process 8,500 tonnes of ore per day. The Project includes seven geographical areas: Tiriganiaq, Wolf, Wesmeg, F Zone, Pump, Discovery, and the community of Rankin Inlet.

The main base of operations is proposed at the Tiriganiaq deposit which would include open pit and underground mining, ore processing, power plant, warehousing, administration, personnel accommodation, and all associated facilities to support these activities. The final gold product would be transported off site via air to the Royal Canadian Mint.

AEM proposed development at five (5) other deposits: Wolf, Wesmeg, F Zone, Pump and Discovery throughout the life of the Project. Both open pit and underground mining are proposed for these deposits. Discovery is the only deposit that would have satellite fuel storage.

At Rankin Inlet, the existing Itivia dock is proposed to receive materials barged from Canada's eastern ports during the open water season. A fuel storage/tankfarm and laydown area would be constructed adjacent to the Rankin Inlet airport. This area would serve as a transfer and storage facility for materials and supplies (i.e., fuel, reagents, supplies etc.) en route to the Meliadine mine site. The existing Rankin Inlet Airport would be used to bring personnel from the south and any materials that cannot be barged. Materials brought in by air would be moved directly to site.

The proposed activities for Phase 2 of the all-weather road include an expansion of the road constructed in Phase 1 (if the NLCA 12.10.2(b) exception currently under consideration is granted) into a two lane road, open to the public. In addition, AEM proposes to construct an 9.4 kilometre spur road south of Meliadine Lake to the Discovery deposit.

The proposed operational mine life is ten (10) years, with a four (4) year pre-operational construction phase and a post-operational decommissioning period of approximately three (3) years. The potential development of additional deposits in the project area could extend the operating life of the project. Progressive reclamation will be undertaken for land and equipment no longer needed for the Project as well as the continuous management of hazardous wastes and contaminated soil.

#### **Project Components**

#### a. Tiriganiaq/Main Mine site

Activities: The main base of the operations will be at the Tiriganiaq site, which will include overburden removal; open pit and underground mining; blasting; ore transportation; dewatering and diking of waterbodies; quarrying activities; ore processing; tailings disposal; warehousing; refuelling; power generation and heat recovery; administration; and personnel accommodations.

Facilities (during operation): open pit; ramp/portal and underground mine; explosives storage; waste rock pad; ore storage pads; haul roads; mill facility; water treatment facilities; water storage facility; tailings management facilities; hazardous material handling and storage facility; fuel storage; warehouse; main maintenance shop; main administration complex; dry facilities; power plant; assay lab; waste management equipment; and accommodation complex.

# b. Development of five other mineral deposits/mine sites (Wolf, Pump, Wesmeg, F Zone, and Discovery)

Activities: overburden removal; open pit and underground mining; blasting; quarrying activities; ore transportation; dewatering and diking of waterbodies (where required); and fuelling (where required).

Facilities (during operations): open pit mine; ramp/portal and underground mine; waste rock/overburden management areas; all-weather haul roads, satellite fuel area(s) where required; dikes and/or water diversion (where required); and water intake facilities.

## c. Rankin Inlet Tank Farm and Storage Facility

Activities: construction of tank farm and laydown area; use of existing Itivia dock for unloading; transfer of fuel to tankfarm; storage of fuel; transfer of materials to laydown area; storage of materials in laydown area; trucking of materials to site.

Facilities (during operations): floating pipeline (when required), spud barge (when required); fuel storage tanks; storage facility; laydown area; and satellite administration office.

#### d. Road infrastructure connecting Rankin Inlet to the Meliadine area

<u>Note</u>: AEM has proposed a two-phase approach for an all-weather access road between Rankin Inlet and the Meliadine Mine site. Phase 1 is being considered as a separate application and therefore, Phase 2 is the only road component that will be considered within the scope of this project.

Activities: Construction of Phase 2 of the all-weather road; construction of a spur road from the all-weather road to the Discovery deposit in phases; quarrying activities; road maintenance; dust management; and traffic management.

Facilities (during operation): Three gates (two manned and one unmanned); quarries, and one emergency shelter.

## e. Mobilization and Shipping

Activities: unloading of fuel, reagents and supplies barged; transfer of materials to laydown area.

Facilities (during operation): Spud barge to be installed when required.

#### f. Abandonment, Decommissioning and Reclamation

Activities: removal of infrastructure and equipment from site; reclamation of disturbed areas; and natural revegetation.

Facilities (during operation): select infrastructure and monitoring equipment.

# 2) Anticipated ecosystemic and socio-economic impacts of the Project

The assessment of the potential for ecosystemic and socio-economic impacts caused by the proposed project components and activities in the above section and extending through all the Meliadine project phases should refer to the environmental and socio-economic factors listed below. The scope of potential impacts caused by the project components, activities, and undertakings to environmental and socio-economic factors shall take into account the appropriate temporal boundaries and spatial boundaries and is expected to draw upon relevant information from scientific sources and traditional knowledge.

- a) Climate and Meteorology
- b) Air Quality
- c) Noise and Vibration
- **d) Geology** (including geochemistry)
- e) Hydrology (including water quantity) and hydrogeology
- f) Groundwater and Surface Water Quality
- g) Terrestrial Environment, including
  - i. Terrestrial ecology
  - ii. landforms and soils
  - iii. Permafrost and ground stability
- h) Vegetation
- i) Freshwater Aquatic Environment, including
  - i. Aquatic ecology
  - ii. Freshwater and Sediment quality
  - iii. Aquatic biota including fish as defined in the Fisheries Act
  - iv. Habitat including fish habitat as defined in the Fisheries Act
- j) Marine Environment, including
  - i. Marine ecology
  - ii. Marine water and sediment quality
  - iii. Marine biota including fish and Species at Risk
- k) Marine Wildlife and Marine Habitat
- l) Terrestrial Wildlife and Wildlife Habitat, including
  - i. Caribou
  - ii. Polar Bear
- m) Birds, including
  - i. Raptors
  - ii. Migratory birds
  - iii. Seabirds

#### n) Socio-Economic Factors, including

- i. Population demographics
- ii. Education and training
- iii. Livelihood and food security
- iv. Employment
- v. Economic development and self-reliance
- vi. Community infrastructure and public services
- vii. Contracting and business opportunities
- viii. Land use
- ix. Benefits, royalty and taxation
- x. Governance and leadership

### o) Human Health and Well-being, including

- i. Worker health and safety
- ii. Individual wellness
- iii. Community wellness

#### p) Land and Resource Use, including

- i. Non-traditional land use
- ii. Traditional land use
- iii. Protected areas
- iv. Visual and aesthetic resources
- q) Culture and Cultural Activities
- r) Cultural, Archaeological and Palaeontological Resources
- s) Residual and Cumulative Effects
- t) Transboundary Effects

## 3) Anticipated Effects of the Environment on the Project

The scope of the assessment will include the potential anticipated effects of the arctic environment on the project throughout the project's life. The scope of factors will include:

- a) Climate and Meteorology
- b) Permafrost
- c) Geotechnical hazards (including slope movement, differential or thaw settlement, frost heave, and ice scour)
- d) Subsidence
- e) Flooding
- f) Unfavourable geological conditions

# 4) Steps which the proponent proposes to take including any contingency plans, to avoid and mitigate adverse impacts

The scope of the assessment will include any contingency plans or risk management plans to avoid and mitigate adverse impacts caused by the proposed project components and activities and these plans should extend through all the project phases. These plans shall take into account the appropriate temporal boundaries and spatial boundaries and is expected to draw upon relevant information from scientific sources and traditional knowledge and should include, but not be limited to:

- a) Emergency response
- b) Hazardous materials management
- c) Accidents and malfunctions
- d) Regulatory Requirements
- e) Mitigation measures

# 5) Steps which the Proponent proposes to take to optimize benefits of the project, with specific consideration being given to expressed community and regional preferences as to benefits

The scope of the assessment will include steps which the Proponent proposes to take to optimize benefits of the project, and should include, but not be limited to:

- a) Compensation and Benefits
- b) Health Benefits
- c) Human Health and Well-being
- d) Employment
- e) Education and Training
- f) Land Use
- g) Contracting and Business Opportunities
- h) Any non-confidential details from the Inuit Impact Benefits Agreement

# 6) Steps which the Proponent proposes to take to compensate interests adversely affected by the project

The scope of the assessment will include the steps which the Proponent proposes to take to compensate interests adversely affected by the project including all non-confidential Inuit Impact Benefit Agreement process and content details.

7) The monitoring programs proposed by the Proponent to identify and manage ecosystemic and socio-economic interests potentially affected by the project

The scope of the assessment will include any programs that will be established to monitor the potential ecosystemic and socio-economic impacts caused by the proposed project components and activities.

8) The interests in lands, waters and other resources which the Proponent has secured or seeks to secure

The scope of the project under review will include any interests in lands, waters and other resources which the Proponent has secured or seeks to secure based on the proposed works and activities or undertakings that constitute the Meliadine project proposal.

Nunavut Planning Commission	Conformity Determination under the
	Keewatin Regional Land Use Plan
Nunavut Impact Review Board	Project Certificate
Nunavut Water Board	Type 'A' Water Licence
Aboriginal Affairs and Northern	Class 'A' Land Use Permit, rights-of-ways,
Development Canada	Mineral Lease
Kivalliq Inuit Association	Land Use Licences, leases, easements,
	rights-of-ways and various other permits
Fisheries and Oceans Canada	Under section 35(2) and Section 32 of the
	Fisheries Act
Transport Canada	Navigable Water Permit and Oil Pollution
	Prevention/Emergency Plan as per the
	Canada Shipping Act
Government of Nunavut-Community and	Quarry approval and Right-of-Way approval
Government Services	
Natural Resources Canada	Explosive Manufacturing Licence
Environment Canada	Schedule 2 Amendment to Metal Mining
	Effluent Regulations
Canadian Nuclear Safety Commission	Nuclear Substances & Radiation Devices
	Licence
Workers Safety & Compensation	Explosive magazine Permit renewal
Commission	
Government of Canada - Department of	Class 2 Permit for Heritage Sites
Culture, Language Elders & Youth	
Nunavut Research Institute	Socio-economic & Traditional Knowledge
	Research Licence

#### 9) Alternative options for implementing the Project

The scope of the assessment will include project alternatives including alternatives to individual components/activities, alternate timings and development options, as well as presenting the "no go" option as it pertains to the overall Project.

#### 10) Any other relevant matters

The scope of the assessment will include any other matters that the NIRB considers relevant, including:

- a) Technical innovations previously untested in the Arctic including new technology for mine design, operation, and tailings containment;
- b) Traditional knowledge;
- c) Statement of Consultation Principles and Practices;
- d) Significant Effects Analysis;
- e) Sustainability Analysis; and
- f) Interactions between Valued Ecosystem Components and Valued Socio-Economic Components.