AGNICO EAGLE

AMARUQ

EXPLORATION PROJECT

Quarrying Management Plan

For Eskers 7 and 7B

Document Control

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2	July 2017	MBC			Revised to add Quarry 1
3	August 2017	DF			Revised to add borrow pit 7B
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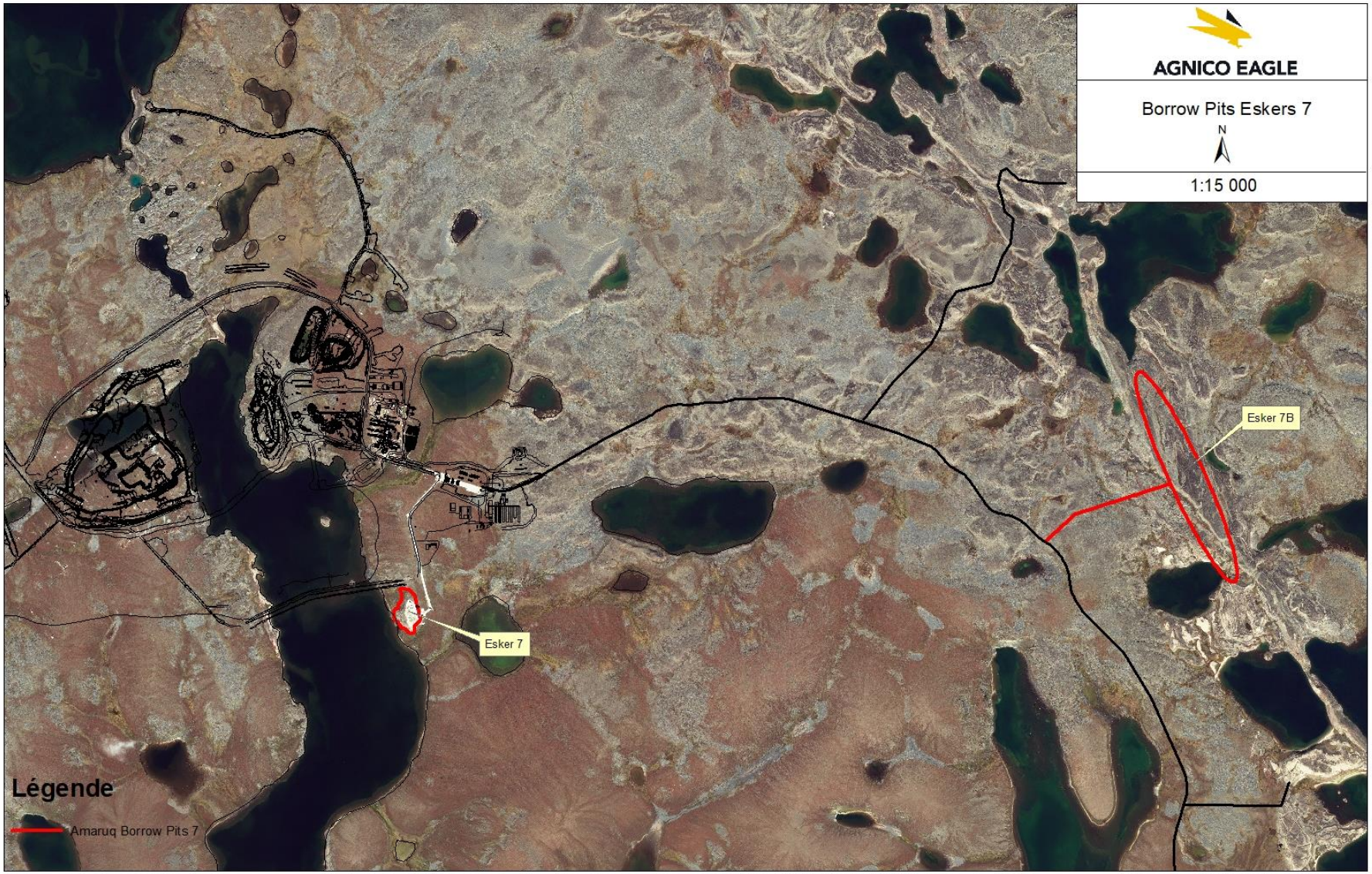
Table of content

1. Introduction

Agnico Eagle Mines Limited (Agnico Eagle) signed an exploration agreement with Nunavut Tunngavik Inc. in January 2013 for the Amaruq property. This property is located approximately 150 kilometres north of Baker Lake and about 50 kilometres northwest of the Meadowbank mine. The Kivalliq Inuit Association issued Agnico Eagle a land use licence for exploration purposes and the Nunavut Water Board issued a Type B water licence 2BE-MEA1318 (now 2BB-MEA1828). Agnico Eagle started the installation of an exploration camp during the summer 2014 and now, a mine is in operation as Agnico Eagle exploits the Whale Tail pit as a satellite deposit of the Meadowbank mine.

This management plan describes the use of the esker borrow pits #7 that are exploited for gravel requirements. The gravel material is used for various constructions including gravel pads, roads, berms, etc. Material comes from the borrow pits and not from existing watercourses; no gravel will be gathered from below the high water mark of any watercourse, nor will any borrow pit operate within 31 metres of a water body. The Quarry permit associated to the exploration of the borrow pits was emitted by the Kivalliq Inuit Association. Fees are paid to the Kivalliq Inuit Association for each cubic metre of material used, and an accurate record of the volume used is kept.

Figure 1: Location of Borrow pits 7 and 7B



2. Land Use Authorization

This quarry management plan describes the proposed activities under the quarrying permit KVCA15Q01 for eskers 7 and 7B. The activities described in this management plan are authorized by various authorizing agencies. The Nunavut Impact Review Board in the decision 11EN010 and the Nunavut Water Board in the water licence 2BB-MEA1828 have authorized the exploitation of the borrow pits. These borrow pits are located on Inuit Owned Land and administered by the Kivalliq Inuit Association.

3. Site Description

Figure 1 shows the gravel deposits located in the eskers 7 and 7B that are located in the area of the Amaruq exploration project. The area used for the borrow pits will be around 1 hectare for esker 7 and up to 13 hectares for esker 7B. A maximum of 260,000m³ is planned to be used from these borrow pits. When the exploitation is completed, the reclaimed borrow pits will have gently sloping walls and positive drainage wherever possible. With prudent initial design, the borrow pits will require little reclamation.

4. Overburden

There is almost no overburden present in the eskers 7 and 7B gravel deposits. At many locations, the gravel is exposed without any overburden. The estimated thickness of the overburden varies between 0 and 2 cm depending on the area. The volume of overburden that will be stockpiled during the exploitation will be very low to absent, since it is very difficult to remove only the overburden without mixing it with the gravel due to its small layer.

Please refer to the Conceptual Closure and Reclamation Plan version for more details regarding the reclamation plan for these borrow pits.

5. Mitigation Measures

Best management practices will employ the following general mitigation measures for the borrow pits:

- Minimize the surface area of borrow pits;
- Locate in well drained areas;
- Where possible, maintain the floor of the pits slightly above the elevation of the surrounding area to promote natural drainage patterns, avoid creating ponds, and prevent permafrost degradation in pits;
- Prevent erosion and sedimentation through appropriate control measures such as silt fences;
- Carry out ARD/ML testing and water quality monitoring in support of mitigation measures;
- Protect archeological resources and mitigate as deemed appropriate by GN cultural and heritage department;
- If deemed necessary, maintain air quality through dust control/suppression;
- Use progressive reclamation in closing pits that are no longer needed.

Where mitigation measures are not proving effective, adaptive management will be employed to address shortcomings.

6. Borrow Pit Extraction Methods

Quarries consist of rock material that is typically extracted by digging, cutting, or blasting and yields large stones that may then need to be crushed (INAC 2009) whereas borrow pits consist of fine grained fill materials, such as sand or clay that are normally used at a nearby site (INAC 2009).

Wherever possible, borrow pit material will be ripped using a dozer. This loosens the material and allows it to be picked up using a loader or a hydraulic shovel. Standard drill and blast procedures may be used in instances where ripping is not possible.

Approved ammonia management procedures will be adopted to ensure blasting practices, if any, and quantities of explosives and blast performance will be monitored to optimize blasting practices while reducing impacts to nearby water quality from blast residue.

7. Proximity of Water Bodies

Lakes located near the proposed borrow areas must be protected against any possible sedimentation coming from the borrow pits/quarry. The buffers requested by the Nunavut Impact Review Board and by the Nunavut Water Board are the following:

Water Licence No. 2BB-MEA1828 Amendment 2 Part E, Item 11:

The Licensee shall maintain a minimum of thirty-one (31) metres large undisturbed buffer zone between the periphery of quarry sites and the high water mark of any water body. The Licensee shall not excavate and/or remove material from the quarry beyond a depth of one (1) meter above the high water mark or above the groundwater table, to prevent the contamination of groundwater. The quarrying shall be in accordance with all applicable legislation and industry standards including the *Northern Land Use Guidelines, Pits and Quarries* (INAC, 2010).

Nunavut Impact review Board, new conditions 11EN010

69. The Proponent shall maintain an undisturbed buffer zone between the periphery of quarry sites and the high water mark of any water body that is of an adequate distance to ensure erosion control.

8. Acid Rock Drainage and Metal Leaching

Geochemical testing was carried out to assess the chemical composition of the potential building material, its potential to generate acid rock drainage (ARD), and its potential to leach metals into the receiving environment upon exposure to ambient conditions. Sampling and testing prior to use of any rock significantly reduces the risk of ARD/ML. Avoiding the use of undesirable or questionable materials ranks this mitigation measure as highly desirable.

Initial testing of the borrow pits materials was completed and found that the samples show no potential to generate acid drainage. Additional tests will be carried out during the development of eskers 7 and 7B to confirm the no ARD-ML status of the material to be taken.

9. Management of Archaeological Resources

Agnico Eagle has carried out an archaeological assessment of the area around Amaruq borrow pits and no concerns were raised following the assessment of the borrow pit 7. One archeological site was found on the esker 7B, and protection measures will be applied to protect this site. It is Agnico Eagle's intent to avoid archaeological resources in building the infrastructures wherever possible; this is the preferred mitigation measure. The goal is to protect archaeological sites identified at any borrow pit or on the access road. However, if any identified site cannot realistically be avoided, Agnico Eagle will apply for a Culture and Heritage permit to mitigate the site(s). If any potential archaeological site is identified during the operation of any borrow pit, work will stop, a professional archaeologist will be consulted, and Culture and Heritage will be informed of the discovery.

10. Ground Ice and Permafrost Protection

Should permafrost degradation become evident, the area will be monitored and, if necessary, stabilized by covering the affected land with 1.0 to 1.5 m of granular material. This reclamation effort would allow the permafrost to move up into the material covering the area and stop any further permafrost degradation or prevent further melting of any ground ice. Inspections of borrow pits will continue after their closure.

Any significant seeps originating from the borrow pits as a result of ground ice, permafrost melting, or from precipitation events will be monitored if the water is likely to reach receiving waters.

11. Wildlife Management in Borrow/Quarry Pits

The Nunavut Wildlife Act and Regulations will apply as raptors nesting close or in the quarry may be disturbed, or raptors may nest in the quarries upon the completion of their use. The Environmental Department will complete inspections in quarry pits to make sure there is no raptor nest during operations and before any work is conducted. If a nest is discovered, all work will be suspended.

Land animals may also be disturbed by the quarrying activities. Blasting, if any, will require the use of explosive. The activities will have to comply with the Explosive Use Act and Regulations, and the Mine Health and Safety Act and Regulations. No blast will be held if there is any wildlife near the area to be blasted.