



NIRB File No. 15EN052

NPC File No.: 148160

December 16, 2015

Mike MacMorran
North Arrow Minerals Inc.
Suite 960-789 West Pender Street
Vancouver, BC V6C 1H2

Sent via email: mmacmorran@northarrowminerals.com

Re: Notice of Screening for North Arrow Minerals Inc.'s "Luxx Exploration" project proposal

Dear Mike MacMorran:

On December 1, 2015 the Nunavut Impact Review Board (NIRB or Board) received a referral to screen North Arrow Minerals Inc.'s (North Arrow or the Proponent) "Luxx Exploration" project proposal from the Nunavut Planning Commission (NPC or Commission), with an accompanying positive conformity determination with the Keewatin Regional Land Use Plan. Pursuant to section 86 of the *Nunavut Planning and Project Assessment Act* (NuPPAA), the NIRB has commenced screening this project proposal and has assigned it file number 15EN052 - please reference this file number in all future related correspondence.

INFORMATION REQUEST

Following a preliminary completeness check, the NIRB determined that the proposal as submitted did not contain the necessary information for the NIRB to carry out its screening. On December 8, 2015 the NIRB requested that North Arrow provide additional information in support of this proposal by December 22, 2015. On December 9, 2015 the NIRB received the requested additional information to commence with the screening.

PROJECT SCOPE

Project Scope:

The proposed "Luxx Exploration" project is located within the Kivalliq region, approximately 60 kilometres (km) west of Chesterfield Inlet and 90 km north of Rankin Inlet. The Proponent intends to conduct exploration (ground geophysical survey, prospecting and/or till sampling,

delineation and exploration drilling) to gauge the potential for diamond deposits. The program is proposing to take place seasonally from March 2016 to September 2018.

According to the project proposal, the scope of the project includes the following works or activities:

- Conduct drilling activities during a one (1) to two (2) week period in April, May, July or August of 2016 with the potential of additional drilling activities in April, May, July or August of 2017 depending on results on the first year's activities
- Crew accommodations, aviation fuel purchases, temporary fuel storage, and waste disposal sourced through community services in Chesterfield Inlet;
- Daily helicopter transport of equipment, personnel and fuel as required to and from Chesterfield Inlet and each target drilling site. Empty fuel barrels would be transported brought back to Chesterfield Inlet and disposed of appropriately in an approved facility;
- Storage in Chesterfield Inlet of the following items in a temporary berm (location yet to be determined):
 - Up to 50 barrels of diesel,
 - Up to 20 barrels of aviation fuel,
 - 3 or 4 x 20 litre jerry cans of gasoline and
 - 5 x 100 pound tanks of propane
- Use of one (1) diamond drill for on-land and on-ice drilling;
 - Drilling three (3) to six (6) holes approximately 500-1000 metres (m) total depth at three (3) or four (4) target areas
- Use of water from nearby lakes for drilling activities;
- Use and storage at the drill site of hazardous materials and chemicals and fuel [up to seven (7) barrels of fuel]; and
- Disposal of sludge (drill cuttings and water) in sumps as appropriate or a cuttings-capture system when drilling on-ice.

At this time, the NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB will proceed with screening the project based on the scope as described above.

REQUEST FOR COMMENTS

All documents received and pertaining to this project proposal can be obtained from the NIRB's online public registry at the following location <http://ftp.nirb.ca/01-SCREENINGS/ACTIVE%20SCREENINGS/15EN052-North%20Arrow%20Minerals-Luxx/01-APPLICATION/> and include:

- *NPC Screening Referral*
- *NPC Questionnaire and Conformity Determination*
- *NIRB Part 1 Summary Form in English and Inuktitut*
- *Non-technical Project Proposal summary in English and Inuktitut*
- *NIRB Part 2 Form*
- *Maps noting the location of the property in proximity to Chesterfield Inlet and Luxx property*
- *Spill Contingency Plan*

- *Abandonment and Restoration Plan*

The NIRB will copy you on screening process related correspondence and upload related documents to the above online registry for public access. The NIRB may request additional information at any time during the process.

The NIRB is copying parties and municipalities potentially affected by North Arrow project proposal with this letter, and we invite interested parties to comment directly to the NIRB by **January 5, 2016**.

The NIRB would like parties to provide comments regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

Please note that *proposed* project-specific terms and conditions, should the project proceed, have been attached for consideration and comment (**Appendix A**).

CONTACT INFORMATION

Please send your comments to the NIRB at info@nirb.ca or via fax at **(867) 983-2594**.

If you have any questions or require clarification, feel free to contact the undersigned at (867) 983-4619 or at kgillard@nirb.ca.

Sincerely,



(original signed by:)

Kelli Gillard B.Sc., P.Ag.

Technical Advisor

Nunavut Impact Review Board

cc: Distribution List
 Phyllis Beaulieu, Nunavut Water Board
 Luis Manzo, Kivalliq Inuit Association
 Tracey McCaie, Indigenous and Northern Affairs Canada

Attachment: Appendix A – *Proposed* Project Specific Terms and Conditions

Enclosures (4): Public Notice of Screening (English and Inuktitut)
 Comment Forms (English and Inuktitut)

Appendix A

Proposed Project Specific Terms and Conditions

The following is a list of project-specific terms and conditions which, should the project proceed, may be recommended to be attached to any approval.

General

1. North Arrow Minerals Inc. (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (Application to Determine Conformity and Questionnaire, Abandonment and Restoration Plan, and Spill Contingency Plan, December 1, 2015) and the NIRB (NIRB Part 1 and 2 forms, Non-technical summary, December 9, 2015 as well as Response to Clarification, December 14, 2015).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water

5. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

Waste Disposal

6. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.

Fuel and Chemical Storage

7. Unless otherwise authorized by the Nunavut Water Board, the Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
8. The Proponent shall ensure that re-fueling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body, unless otherwise authorized by the Nunavut Water Board.
9. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
10. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks), when storing barreled fuel and chemicals at all locations.

11. The Proponent shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans and absorbents) are readily available during any transfer of fuel or hazardous substances, and at all fuel storage sites.
12. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

Wildlife - General

13. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
14. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
15. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

Migratory Birds and Raptors Disturbance

16. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e., with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.
17. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.
18. The Proponent shall ensure its aircraft avoid excessive hovering or circling over areas where bird presence is likely.

Aircraft Flight Restrictions

19. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.
20. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
21. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
22. The Proponent shall advise all pilots of relevant flight restrictions and enforce their application over the project area, including flight paths to/from the project area.

Caribou and Muskoxen Disturbance

23. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.

Ground Disturbance

24. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles must be suspended if rutting occurs.

Drilling on Land

25. Unless otherwise approved, the Proponent shall not conduct any land based drilling or mechanized clearing within thirty-one (31) metres of the normal high water mark of a water body.
26. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
27. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
28. The Proponent shall ensure that all drill areas are constructed to facilitate minimizing the environmental footprint of the project area. Drill areas should be kept orderly with garbage removed daily to an approved disposal site.
29. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps shall only be used for inert drilling fluids, and not any other materials or substances.
30. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway unless otherwise authorized.
31. The Proponent shall ensure all drill holes are backfilled or capped prior to the end of each field season. All sumps must be backfilled and restored to original or stable profile prior to the end of each field season.

Drilling on Ice

32. If drilling is conducted on lake ice, the Proponent shall ensure that any return water is non-toxic, and will not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Freshwater Aquatic Life (i.e., 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
33. The Proponent shall ensure that drill muds and additives are not used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
34. The Proponent shall ensure that all drill cuttings are removed from ice surfaces daily.

Land Use

- 35. The Proponent shall not store material on the surface ice of lakes or streams.
- 36. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

Restoration of Disturbed Areas

- 37. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
- 38. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season and/or upon abandonment of site.

Other

- 39. The Proponent should, to the extent possible, hire local people and to consult with local residents regarding their activities in the region.
- 40. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
- 41. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.