



SCREENING DECISION REPORT

NIRB File No.: 06EN003
INAC File No.: N2005C0040

March 9, 2006

Honourable Jim Prentice
Minister of Indian and Northern Affairs
Ottawa, ON

Via email: minister@inac.gc.ca

RE: Screening Decision of the Nunavut Impact Review Board (NIRB) for Titan Uranium Inc.'s Thelon Exploration and Camp Project Proposal

Dear Minister:

Decision:

NIRB is recommending that the above referenced project proceed, subject to the terms and conditions listed herein.

Authority:

Section 12.4.4 of the Nunavut Land Claim Agreement states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

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| √ | a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5; |
| | b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review; |
| | c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or |
| | d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned. |

Primary Objectives:

The primary objectives of the Nunavut Land Claims Agreement are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

Again, the decision of the Board in this case is 12.4.4 (a) **the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;**

NIRB makes this decision with broader terms and conditions because of the sensitivities and importance of the proximity of the Project Proposal to the border of the Thelon Wildlife Sanctuary and the fact that it will be operating within a Caribou Protected Area and Critical Wildlife Area for the Beverly Herd.

With respect for NIRB's primary objectives and the Thelon Wildlife Sanctuary, NIRB makes the following recommendations for INAC's consideration.

1. Ensure that Titan Uranium's project located in the Aberdeen Lake area which has been proposed as a Special Management Area (SMA) by the Thelon Wildlife Sanctuary Management Plan (Plan) is regulated for land use purposes in a manner consistent with the intent of the Plan. NIRB makes this recommendation with consideration for the Policies/Recommendations referenced from Section 3.3 entitled Boundary Review on page 13 of the Plan which states:

"The Akiliniq Planning Committee recommended that management areas or other protected status be created and managed in adjacent areas of special importance, particularly Tyrrell Lake to the southwest, and Aberdeen Lake to the northeast. It would be appropriate for the Management Authority to consider this recommendation with special attention to management strategies and options, either for cooperative management of these adjacent areas, or strategies to ensure appropriate communication and coordination between the Management Authority, and the local land use management agencies responsible for adjacent areas."

2. For wildlife issues, recognize the importance of the cooperation of the Nunavut Wildlife Management Board (NWMB) in the implementation of these recommendations. NIRB makes this comment in accordance with the NLCA Section 12.12.5.
3. For any transboundary issues, recognize the importance of the Thelon Wildlife Sanctuary and the proposed SMAs to the Government of Northwest Territories (NWT) – Department of Resources, Wildlife, and Economic Development (RWED), Lutsel K'e, and any other authorities established in the NWT.
4. As an overriding consideration, ensure that conditions within the permits encourage the proponent to be mindful of the sensitivities and importance of the area given its proximity to the Thelon Wildlife Sanctuary. NIRB recommends that INAC consider imposing as strict as possible land use regulations and monitoring requirements so that the integrity of the resources critical to the sustainability of the Sanctuary is maintained.

5. INAC conduct its own field reconnaissance, investigations and monitoring of the project to ensure that the proponent is complying with the terms and conditions of its land use permit, especially with respect to monitoring levels of radiation.
6. Ensure that direct local conservation input is provided into the regulatory process prior to permit issuance.
7. Ensure that conditions within the permits require the proponent to respect the values of the Heritage Rivers and to not engage in any activity that would interfere or otherwise detract from the experience of tourists and Nunavummiut using the Heritage Rivers now and in the future.

Reasons for Decision

NIRB's decision is based on specific considerations that reflect the primary objectives of the Land Claims Agreement. Our considerations in making this decision included:

- the proximity of the project proposal to the Thelon Game Sanctuary (Sanctuary);
- the proximity of the project proposal to the Canadian Heritage River System;
- the impact of radiation and radon gas on the ecosystem;
- the impact of activities on the ecosystem;
- impact to water quality, aquatic habitat and wildlife and fish populations from chemicals, drill waste, drill fluids and potential fuel spills;
- storage and disposal of chemicals, fuel, garbage, sewage, and gray water, and impact of these on the ecosystem;
- the impact of noise from exploration activities and their disturbance to wildlife and traditional users of area;
- the potential impact of helicopter on wildlife;
- the impact of campsite and equipment on terrain;
- the impact of exploration activities on archaeological sites or cultural landmarks in the area; and
- clean up/restoration of the camp site and sample locations upon abandonment;

Terms and Conditions:

That the terms and conditions attached to this screening report will apply.

General

1. The Permittee shall maintain a copy of the Project Terms and Conditions at the sites of operation at all times.
2. The Permittee shall immediately report **all** spills of petroleum and hazardous chemicals to the twenty-four (24) hour spill report line at (867) 920-8130.
3. The NIRB shall be notified of any changes in operating plans or conditions associated with this project prior to any such change.
4. The Permittee shall submit to Board, at the end of the field season, a map showing the approximate location of drill sites.
5. The Permittee shall file a report with the Board no later than March 31 of the year following the year the work was completed, which shall contain but not be limited to the following information:
 - a. A summary of activities undertaken for the year, including but not limited to the amount of drilling;
 - b. A work plan for the following year;
 - c. The results of environmental studies undertaken (if undertaken) and plans for future studies;
 - d. Wildlife encounters and actions/mitigation taken;
 - e. A summary of local hires and initiatives;
 - f. A summary of community consultations undertaken and the results;
 - g. A summary of site-visits by inspectors with results and follow-up actions;

- h. A summary of site-visits with community members (if conducted);
 - i. The number of take-offs & landings from an airstrip with approved flight path with date and location;
 - j. The number of helicopter touch-downs on the land with date, location and reason (provide reason unless confidential);
 - k. Site photos;
 - l. Revisions to the Abandonment and Restoration Plan;
 - m. Progressive reclamation work undertaken;
 - n. A summary of how it has complied with all project terms and conditions and how the terms and conditions are achieving their purpose; and
6. The Permittee shall submit to the Board a report, as mentioned in #5 above, each year until there is complete abandonment and reclamation of the site.

Drill Sites

- 1. The Permittee shall not conduct any land based drilling within thirty (30) metres of the normal high water mark of a water body.
- 2. The Permittee shall conduct lake-based winter drilling, in accordance with the Interim Guidelines for On-Ice drilling.
- 3. The Permittee 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 demonstrated to be non-toxic.
- 4. The Permittee shall ensure that all drill cuttings are removed from ice surfaces.
- 5. The Permittee shall not use drilling muds or additives in connection with drill holes unless they are recirculated or contained such that they do not enter the water, or are certified to be non-toxic. Further, the Permittee is hereby informed that the Canadian Environmental Protection Act has recently listed CaCl as a toxic substance. If CaCl is to be used as a drill additive, the proponent shall ensure that all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any waterbody.
- 6. The Permittee shall ensure that when “on-ice drilling”, the return water released must be non-toxic, and 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).
- 7. The Permittee shall ensure that any drill cuttings and waste water that cannot be re-circulated be disposed of in a properly constructed sump or an appropriate natural depression that does not drain into a waterbody. The use of biodegradable, salt free drill additives is encouraged over non-biodegradable types. The sump shall be backfilled upon completion of the hole.
- 8. The Permittee shall ensure that the sump/depression capacity is sufficient to accommodate the volume of waste water and any fines that are produced so that there will be no additional impacts.

9. The Permittee shall not locate any sump within thirty (30) metres of the normal high water mark of any water body.
10. The Permittee shall ensure that disturbance of vegetation from deposit of drill fluids/cuttings is restricted to the area of the sump and the ground prepared for revegetation upon abandonment.
11. The Permittee shall not use mechanized clearing within 30 meters of the normal high water mark of a watercourse in order to maintain a vegetative mat for bank stabilization.
12. The Permittee shall, where flowing water from bore holes is encountered, plug the bore hole in such a manner as to permanently prevent any further outflow of water. The occurrence shall be reported to the Nunavut Water Board and Land Use Inspector within 48 hours.
13. The Permittee shall inspect each drill sites for contamination before moving to the next drill site and immediately clean up any contamination.
14. As much as possible, the Permittee will restore drill sites immediately after the drill has been moved to the next site.

Uranium Specific

15. Drill mud solids or cuttings with uranium concentration greater than 0.05 % (or equivalent millisievert reading) are to be collected and then disposed of down the drill hole and sealed.
16. Any drill hole that encounters mineralization with a uranium content greater than 1.0% (or equivalent millisievert reading) over a length > 1 meter, and with a meter-percent concentration >5.0, will be sealed by grouting over the entire length of the mineralization zone and 10 meters above and 10 meters below each mineralization zone as best as possible.
17. Drill holes are to be sealed by cementing (grouting) to an appropriate depth from the surface such that surface waters are prevented from interacting with ground waters.
18. Following backfilling, a radiometric survey must be conducted. When material is found to exceed background radiation levels, then the appropriate regulator must be contacted for review and approval of the handling procedures.
19. Gamma radiation levels of a core storage area must meet the decommissioning requirements of being less than 1.0 µSv one meter from the surface of the storage area and in no instance will the level be allowed to exceed 2.5 µSv. When core is found to exceed the levels identified, then the appropriate regulator must be contacted for review and approval of the handling procedures.
20. Instruments that measure radiation counts per second must be converted to µs according to the specifications of that instrument.

Water

21. The Permittee shall ensure that no harm comes to fish or fish habitat during water withdrawal.
22. The Permittee shall ensure that all water intake hoses are equipped with a screen with an appropriate mesh size to ensure that there is no entrapment of fish; that the rate of water withdrawal

is such that no fish become impinged on the screen; the fish guard or screen is properly maintained; and that during fish guard or screen repair, the entrance of the water intake is closed.

23. The Permittee shall only use the specified volume of water from sources approved by the Nunavut Water Board.

Fuel and Chemical Storage

24. The Permittee shall have an Emergency Response & Spill Contingency Plan approved by the Nunavut Water Board prior to commencing on-site activities. The Plan should include a map outlining the location of fuel caches on site, and related spill kits.
25. The Permittee shall locate fuel caches and other hazardous materials away from the high water mark of any waterbody and in such a manner as to prevent their release into the environment.
26. The Permittee shall ensure that fuel storage containers are not located below, or within thirty (30) metres of the ordinary high water mark of any body of water. Further, secondary containment such as self supporting insta-berms shall be used when storing barrel fuel on location, rather than relying on natural depressions.
27. Fuel storage containers in excess of 4,000 litres capacity shall either be double-walled, self bermed construction, or diked with adequate emergency storage capacity. An impermeable liner shall be used to ensure that no fuel escapes. The Permittee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.
28. The Permittee shall examine all fuel and chemical storage containers immediately upon delivery and daily for leaks. All leaks should be repaired immediately.
29. The Permittee shall seal all container outlets except the outlet currently in use.
30. The Permittee shall mark all fuel containers with the Permittee's name.
31. The Permittee shall dispose of all combustible waste petroleum products by incineration and/or removal from the site.
32. The Permittee shall ensure that all activities, including maintenance procedures and refueling, are controlled to prevent the entry of petroleum products or other deleterious substances into the water or onto the land.
33. The Permittee shall ensure that all on site personnel are properly trained in fuel and hazardous waste handling procedures as well as spill response procedures.
34. The Permittee shall maintain a supply of spill kits, shovels, barrels, sorbents, and pumps on-site at the camp, the main fuel cache, the drill site, and at the camp.
35. The Permittee shall use drip pans when refueling equipment.
36. Chemicals containing salts, which may attract wildlife to the site, should be stored so that they are inaccessible to wildlife.

37. If municipal lands are to be used to transport fuel to the camp, the Permittee shall contact the Government of Nunavut Department of Community Government and Services to determine the appropriate land use or other regulatory permitting required.
38. The Permittee shall ensure that all spill are documented and reported to the 24 hour Spill Report Line at 867-920-8130.

Wildlife

39. The Permittee shall ensure that there is no damage to wildlife habitat in conducting this operation.
40. The Permittee shall ensure that there is minimal disturbance to any nesting birds and wildlife in the area. Harassment of wildlife is prohibited. This includes persistently worrying or chasing animals, or disturbing large groups of animals.
41. The Permittee shall ensure that aircraft pilots adhere to flight altitudes of greater than 300 m above ground level, unless there is a specific need for low-level-flying which does not to disturb wildlife.
42. The Permittee shall not feed wildlife.
43. The Permittee shall ensure that the drill sites avoid known environmentally sensitive areas (denning, nesting etc.) by a minimum of 250 metres.
44. The Permittee shall not conduct any activity associated with the land use operation if critical periods of wildlife cycles are observed (e.g. caribou migration, calving, fish spawning or raptor nesting).
45. That the Permittee shall ensure that there is no hunting by employees of the company or any contractors hired unless proper Nunavut authorizations have been obtained.
46. The Permittee shall contact in advance, the Regional Biologist to identify areas which should be avoided.
47. The Permittee shall ensure that all field personnel are made aware of the measures to protect wildlife including migratory birds, and are provided with training and/or advice on how to implement these measures.

Migratory Birds

48. Pursuant to the Migratory Bird Convention Act Regulations the Permittee shall not disturb or destroy the nests or eggs of migratory birds. The period from May 15 to July 31 is the general migratory bird breeding season, it is recommended that activities be conducted outside of these dates, particularly in the vicinity of known migratory bird colonies.
49. The Permittee shall confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity before activities commence. If active nests of migratory birds are encountered, the Permittee/ Licensee shall avoid these areas until nesting is complete and the young have left the nest.

50. The period from mid June to mid August is the general pre-moulting geese season when moulting geese are temporarily flightless while they lose their flight feathers and grow new ones. During this time they are particularly sensitive to disturbance. All moulting flocks should be avoided.
51. The Permittee ensure that aircraft maintain a vertical distance of 1000 meters and a horizontal distance of 1500 meters from any observed groups (colonies) of migratory birds.
52. The Permittee shall ensure compliance with Section 35 the *Migratory Birds Convention Act* and *Migratory Birds Regulations* which states that no person shall deposit or permit to be deposited, oil, oil wastes, or any other substance harmful to migratory birds in any waters or any areas frequented by migratory birds.
53. The Permittee shall ensure compliance the *Migratory Birds Convention Act* and *Migratory Birds Regulations* during all phases and in all undertakings related to the project.

Bears

54. The Permittee shall follow procedures outlined in the "Safety in Bear Country Manual", and should contact the Regional Biologist or the Wildlife manager for information and advice on measures which should be taken to minimize the possibility of conflicts/interactions with bears.

Caribou

55. The Permittee shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
56. The Permittee shall not construct any camp, cache any fuel or conduct blasting within 10 km, or conduct any drilling operation within 5 km, of any "designated caribou crossing". The Regional/Area Biologist should be contacted for known crossings.
57. From **May 15 to July 15**, the Permittee shall cease activities that interfere with caribou migration or calving, such as the movement of equipment, drilling activities and ATV or snowmobile use until the caribou and their calves have vacated the area.
58. From **May 15 to July 15**, the Permittee shall not conduct flights below 300m and airborne geophysics surveys if caribou are present in the area. These activities may interfere with migration and/or calving.
59. The Permittee shall ensure that during the presence of caribou and muskox within sight and sound of a camp that all personnel will remain quietly in camp.

Fish

60. The Permittee shall ensure compliance with Section 36 of the *Fisheries Act* which requires that no person shall deposit or permit the deposit of a deleterious substance on any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

61. The Permittee shall ensure that there is no fishing by employees of the company or any contractors hired unless proper permits are obtained.

Species of Special Concern (SARA)

62. The Permittee shall develop monitoring plans for each species of special concern in accordance with any applicable status reports, recovery strategies, action plans, and management plans posted on the Species at Risk Public Registry (<http://www.sararegistry.gc.ca/>) and in consultation with the Government of Nunavut and Environment Canada. Monitoring plans should record the locations and frequency of observing species of special concern and note any actions taken to avoid contact or cause disturbance to the species, its residence, or its critical habitat.

Waste Disposal

63. The Permittee shall not discharge or deposit any refuse substances or other waste materials in any body of water, or on the banks thereof, which will impair the quality of the waters of the natural environment.
64. The Permittee shall not locate any sumps or areas designated for waste disposal within thirty (30) metres of the ordinary high water mark of any body of water. 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.
65. The Permittee shall backfill and recontour all sumps to match the natural environment prior to the expiry date of the license.
66. The Permittee shall use an approved incinerator for the disposal of combustible camp wastes. Non-combustible wastes shall be disposed of properly at an approved facility off site.
67. The Permittee shall incinerate all combustible and food wastes daily.
68. The Permittee shall keep all ash in a covered metal container until it is disposed of at an approved facility off site.
69. The Permittee shall keep all non-combustible garbage and debris in a covered metal container until disposed of at an approved facility off site.
70. The Permittee shall deposit all scrap metal, discarded machinery and parts, barrels and kegs, at an approved disposal facility off site.
71. The Permittee shall ensure that any hazardous materials, including waste fuel and oil, receive proper treatment and are backhauled for disposal at an approved facility off site.
72. The Permittee shall ensure compliance with Section 36 of the Fisheries Act which requires that no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

Physical Environmental

- 73. The Permittee shall ensure that the land use area is kept clean and tidy at all times.
- 74. The Permittee shall maintain the site in such a manner as to prevent rutting of the ground surface.
- 75. The Permittee shall not do anything that will cause erosion of the banks of any body of water on or adjacent to the land and shall provide necessary controls to prevent such erosion.
- 76. The Permittee shall be required to undertake corrective measures in the event of any damage to the land or water as a result of the Permittee's operation.
- 77. The Permittee shall not remove any material from below the ordinary high water mark of any waterbody.
- 78. The Permittee shall adopt such measures as required to control erosion by surface disturbance. Sediment and erosion control measures should be implemented prior to, and maintained during the work to prevent sediment entry into the water during a spring thaw.
- 79. The Permittee 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.
- 80. The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.

Structure & Storage Facilities

- 81. The Permittee shall not erect structures or store material on the surface ice of lakes or streams, except that for which is of immediate use.
- 82. The Permittee shall locate all structures and storage facilities on gravel, sand or other durable land.

83. Camps

- 84. The Permittee shall locate all camps on gravel, sand, or other durable land.
- 85. The Permittee shall not erect camps on the surface ice of lakes or streams.
- 86. The Permittee shall keep the camp clean and tidy at all times so as to minimize odours that could attract carnivores.

Archaeological Sites

- 87. The Permittee shall not disturb any archaeological or palaeontological site.
- 88. The Permittee shall immediately contact the Government of Nunavut Department of Culture, Language, Elders and Youths (CLEY) if any archaeological or palaeontological site is encountered or disturbed. The Permittee shall follow all terms and conditions for the protection and restoration of archaeological and palaeontological resources as outlined by CLEY in the attached letter.

Reclamation

89. The Permittee shall advise NIRB and the Land Use Inspector in writing at least 15 days prior to the completion of activities.
90. The Permittee shall remove all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material upon abandonment.
91. The Permittee shall remove all empty barrels from its exploration sites as soon as possible in a progressive manner and shall ensure that all barrels are removed from the land by the end of each field season. Empty barrels shall be disposed of at an approved facility.
92. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.
93. The Permittee shall undertake ongoing restoration for any land which is no longer required for the Permittee's operation on the land.
94. The Permittee shall plug or cap all bore holes and cut off any drill casings that remain above ground to ground level upon abandonment of the operation.
95. The Permittee shall restore the land to as near as natural conditions as possible

Other Recommendations

96. NIRB would like to encourage the proponent to hire local people and services, to the greatest extent possible.
97. NIRB strongly advises proponents to consult with local residents including the Baker Lake Elders, Youth, and Hunters and Trappers, regarding their activities in the region, and to keep the communities informed.
98. Any activity related to this application (INAC Land Use Permit application N2005J0040), and outside the original scope of the project as described in the application, will be considered a new project and will need to be submitted to NIRB for screening.
99. NIRB encourages the proponent to collect baseline data on valued ecosystem components (VECs) as identified through community consultation.
100. NIRB encourages the proponent to financially assist the Beverly and Qamanirjuaq Caribou Management Board (BQCMB) in its radio collaring initiative.
101. NIRB recommends that the proponent contact Ronnie Suluk, Government of Nunavut Community Government Services (GN-CGS) Land Administrator in the Kivalliq Region to determine whether land use permitting by GN-CGS for fuel transport is required.

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated _____ at Cambridge Bay, NU

A handwritten signature in cursive script, appearing to read 'E. Copland'.

Elizabeth Copland, A/Chairperson