

- 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.

NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see Appendix A), the decision of the Board as per section 12.4.4 of the NLCA 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

RECOMMENDATIONS AND RECOMMENDED CONDITIONS

Following review of all material provided to the Board regarding this project proposal, the Nunavut Impact Review Board is recommending the following:

1. Indian and Northern Affairs Canada (INAC) impose mitigation measures and/or conditions pursuant to the Federal Land Use Permit, in regard to:
 - a. Location and Area
 - b. Time
 - c. Equipment
 - d. Methods and Techniques
 - e. Control or Prevention of Flooding, Erosion and Subsidence of Land
 - f. Use, Storage, Handling and Disposal of Chemical or Toxic Material
 - g. Wildlife and Fisheries Habitat
 - h. Objects and Places of Recreational, Scenic and Ecological Value
 - i. Petroleum Fuel Storage
 - j. Matters Not Consistent with the Regulations
2. The Kivalliq Inuit Association (KIA) impose mitigation measures and/or Environment Terms and Conditions pursuant to the Inuit Owned Lands License (KVCL305H27) and the Right-of-Way Agreement upon the Proponent, in regard to:
 - a. General Standards
 - b. Fuel and Chemical Storage
 - c. Campsites
 - d. Fisheries
 - e. Ground Disturbance
 - f. Wildlife
 - g. Any other conditions recommended by the appropriate Community Lands and Resource Committee (CLARC)
3. On or before April 31, 2007, NIRB is requesting the KIA provide NIRB with written clarification regarding KIA involvement in the Starfield Resources Wildlife Management Plan, in regard to:
 - a. Commitment to provide wildlife monitors for critical caribou times and details regarding when the KIA wildlife observers will be present at the Starfield camp

- b. Specifics regarding the responsibility of the KIA wildlife observers within the Proponent's updated Wildlife Management Plan
- c. Specific protocols to be followed by the KIA wildlife observers when determining the Proponent's compliance with the DIAND Caribou Protection Measures
- d. Agreed-upon criteria which the Proponent will use when determining whether or not to notify the KIA that wildlife observers are required

Furthermore, based on correspondence provided to NIRB from Steve Hartman of the Kivalliq Inuit Association, NIRB understands that KIA License No's: KVL399C150 & KVL103B303 (expiry dates of April 30, 2007 and March 24, 2007) will be renewed by the KIA upon request of the Proponent. NIRB recommends that the same conditions recommended in this Screening Decision be imposed upon the Proponent through KVL399C150 and KVL103B303.

In addition, the Board is recommending the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation pursuant to 12.4.4(a) of the NLCA:

1. Starfield Resources Inc. (the Proponent) shall maintain a copy of this Screening Decision at the site of operation at all times.
2. The Proponent shall forward copies to NIRB of all permits obtained and required for this project prior to the commencement of the project.
3. The Proponent shall operate in accordance with commitments stated in Appendix B and all documentation provided to NIRB, INAC, the KIA and the NWB. Where information in the documentation conflicts with Appendix B, Appendix B shall prevail.
4. The Proponent shall submit an annual report with copies provided to the NIRB, INAC, the KIA, and EC by January 31 each year that the project is in operation commencing January 31, 2008. The report must contain, but not be limited to, the following information:
 - a. A summary of activities undertaken for the year;
 - b. A work plan for the following year;
 - c. The results of environmental studies undertaken and plans for future studies;
 - d. Wildlife encounters and actions/mitigation taken;
 - e. An analysis of the effectiveness of mitigation measures for wildlife;
 - f. A summary of local hires and initiatives;
 - g. A summary of community consultations undertaken as detailed in the Communications Plan;
 - h. A summary of site-visits by Land Use Inspectors with results and follow-up actions;
 - 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 and location (provide unless confidential);
 - k. Site photos;
 - l. Progressive reclamation work undertaken;
 - m. A summary of the 2007 evaluation activities conducted by a qualified archaeologist;
 - n. Any approvals given by Land Use Inspectors regarding Caribou Protection Measures;
 - o. Efforts made to achieve compliance with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*; and

- p. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision, and the conditions associated with all authorizations for the project proposal.
5. The Proponent shall abide by all DIAND Caribou Protection Measures (CPM), except where NIRB has recommended a condition distinctive from the CPM. In the case where the CPM and NIRB's recommended conditions conflict, the NIRB condition shall prevail. If the Proponent is given any approvals to stay within the project area by a Land Use Inspector during the presence of caribou, the Proponent shall provide NIRB with written proof of this approval within ten (10) days of receipt of approval.
 6. The Proponent shall not conduct any activity, including construction of the airstrip and associated all-weather road, between May 15 and July 15 of the calendar year. Furthermore, if the Proponent's daily wildlife monitoring program or the KIA wildlife monitors indicate that caribou are in the area or are approaching the project area prior to May 15 or following July 15, the Proponent must immediately stop all activities (i.e. blasting, the use of ATV's and snowmobiles, and the movement of equipment) and must not commence operations again until wildlife monitoring indicates the caribou are at least 10km from the project area.
 7. The Proponent shall be prohibited to allow aircraft take-offs and landings when groups of caribou are within 1km of the airstrip or helipad.
 8. On or before April 31, 2007, the Proponent shall submit a Wildlife Mitigation and Monitoring Plan to NIRB, the GN-DOE, INAC and the KIA, which must include:
 - a. The following requirements:
 - i. Any NIRB conditions contained within this Screening Decision
 - ii. Aircraft must maintain a flight altitude of at least 610 m at all times, particularly when there are observed groups of caribou, [and] maintain a vertical distance of 1000 m and minimum horizontal of 1500 m from any observed concentrations of birds
 - iii. The Proponent must make all reasonable efforts to communicate, in advance, to aircraft pilots where there are concentrations of caribou
 - iv. The continuation of the daily wildlife monitoring program, the involvement of KIA wildlife monitors, and the criteria used by which the Proponent will determine when KIA wildlife monitors will become involved in wildlife monitoring
 - v. There must be a Cat Train scout traveling on snowmobile at least 5km in advance of the Cat Train while Cat Train is in operation
 - vi. The Cat Train must cease operations immediately upon notification from the Cat Train scout that migrating caribou are traveling within 5km of the Cat Train. Operations may be resumed once the caribou have moved beyond 5km of the Cat Train
 - b. A clear estimation of the minimum number of flights required for the ongoing viability and safety of the project
 - c. A clear definition of the geographical boundaries the Proponent is using when determining if wildlife are 'within the project area'
 - d. Predicted impacts to wildlife from project activities
 - e. Proposed site-specific measures to reduce anticipated adverse impacts to wildlife
 - f. Proposed procedures for the daily wildlife monitoring program, including frequency, monitoring period, locations where monitoring will occur, and discussion regarding how

the data collected in the daily wildlife monitoring program will be used to determine if adaptive mitigation and management strategies for wildlife are required

- g. Clear description of thresholds that will be used to determine the necessity for adaptive mitigation and management strategies
 - h. Procedures for monitoring the effectiveness of mitigation measures
- Any subsequent direction provided by the Government of Nunavut Department of Environment (Mitch Campbell) regarding the Wildlife Mitigation and Monitoring Plan must be forwarded to NIRB.
9. The Proponent or any contractors or sub-contractors shall not feed wildlife.
 10. The Proponent shall ensure that there is no hunting or fishing by employees of the company or any contractors hired unless proper Nunavut authorizations have been obtained.
 11. On or before April 31, 2007, the Proponent shall submit to NIRB, Environment Canada (EC), the KIA and the NWB a comprehensive Water Quality Monitoring and Management Program for monitoring of drainage water associated with the airstrip and all-weather road construction must include:
 - a. Description of the amount of aggregate to be excavated for the airstrip and all-weather road construction, and distance of the excavation site(s) from water bodies, fish-bearing waters and water crossings
 - b. Details of the monitoring program, such as monitoring locations, frequency of sampling, and parameters monitored;
 - c. Guidelines used in the monitoring program, such as Canadian Council of Ministers for the Environment guidelines for the protection of freshwater aquatic life (CCME-FWAL), and any site-specific criteria established by the NWB;
 - d. Operational procedures intended to mitigate the potential adverse effects to water quality, including those effects from sedimentation due to run-off
 - e. Anticipated adaptive management strategies to deal with adverse impacts identified from the monitoring program
 12. The Proponent shall submit its updated Spill Contingency Plan and Abandonment and Restoration Plan to NIRB, INAC, KIA and the NWB immediately.
 13. The Proponent shall ensure that the disposal of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*. Efforts made to achieve compliance shall be reported to the NIRB as part of the annual report.
 14. The Proponent shall conduct additional sampling of all contaminated soil within the project area in 2007. Upon determination of the amounts of contaminated soil present within the project area, correspondence must be provided to NIRB and Environment Canada (EC) which includes the data collected from the 2007 sampling program, a description of the anticipated confirmatory follow-up sampling program to confirm total removal of contaminated soil, and a description of the location where disposal of the contaminated soil will take place. This correspondence must be sent to NIRB and EC no later than October 31, 2007.
 15. Prior to any ground disturbance activities, the Proponent shall ensure that the areas are evaluated by a qualified archaeologist. A summary of the 2007 evaluation activities conducted by a qualified archaeologist must be submitted to the Government of Nunavut – Culture, Language, Elders and Youth (GN-CLEY) no later than October 31, 2007.

16. On or before April 31, 2007, the Proponent shall submit to NIRB and the Ferguson Lake Natives a summary of the archaeological studies conducted in 2005 and 2006. Any subsequent correspondence sent from the Ferguson Lake Natives to Starfield Resources regarding the archaeological studies must be forwarded to NIRB.
17. On or before April 31, 2007, the Proponent must submit to NIRB a comprehensive Communications Plan, which must include:
 - a. Clarification regarding how Ferguson Lake Natives will be involved as assistants and observers in the ongoing archaeological work to be conducted by Starfield Resources and confirmation the Ferguson Lake Natives have approved the involvement strategy
 - b. The Proponent's consultation strategy with affected communities, including the Ferguson Lake Natives
 - c. The procedures the Proponent will follow to ensure that all contractors associated with the project proposal are aware of all conditions associated with any authorization required for the project. This includes the conditions contained within this Screening Decision, and the updated Wildlife Mitigation and Monitoring Plan.
18. The Proponent shall adhere to conditions stated in attached Appendix C *Archaeological and Palaeontological Resources – Terms and Conditions for Land Use Permit Holders*.

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 __March 26, 2007__ at Cambridge Bay, NU.



Lucassie Arragutainaq, A/Chairperson

Appendix A – File History

On January 11, 2007 the Nunavut Impact Review Board (NIRB or Board) received a Starfield Resources amendment project proposal from the Kivalliq Inuit Association (KIA) which included the following project activities:

- Construction of 1380m × 30m airstrip runway
- Construction of 1.5km × 6m all-weather access road
- Movement of bulk fuel and storage
- Winter trail right-of-way from Churchill, MB and Rankin Inlet, NU to Ferguson Lake

The Ferguson Lake Project is located approximately 100km south of the community of Baker Lake.

Starfield Resources had requested an amendment to Kivalliq Inuit Association Land Use License KVCL305H27 to include the airstrip and associated activities, and also submitted a new application for a right-of-way to support the camp and construction of the airstrip.

NIRB determined that these project activities were **not** included in the camp and exploration project proposal (NIRB No. 06EN008) previously screened by NIRB in 2006 and therefore conducted a Part 4 Screening on the amendment activities.

The application was distributed to Baker Lake and to interested Federal and Territorial Agencies.

By February 2, 2007, NIRB received comments from the following interested Parties:

- Mr. Orin Durey of Baker Lake
- Ms. Joan Scottie, on behalf of the Ferguson Lake Natives
- The Government of Nunavut Department of Environment
- The Beverly and Qamanirjuaq Caribou Management Board
- The Saisis Dene North of 60 Negotiating Team
- The Athabasca Denesuline Negotiation Team North of 60
- Environment Canada

Concerns regarding the project proposal were expressed by all interested Parties except for the Saisis Dene North of 60 Negotiating Team.

The main concerns included:

- potential impacts to caribou from airstrip construction, airstrip use, and the right-of-way trail
- protection of caribou calving grounds
- lack of mitigation measures and monitoring for impacts to caribou and other wildlife
- required GN-Park Use Permit to travel through the Iaqlugaarjuup Nunanga Territorial Park
- omissions in the project description, such as numbers and locations of required quarries for construction material
- omissions in the Spill Contingency Plan, such as disposal of fuel contaminated soils
- omissions in the Abandonment and Restoration Plan, such as details pertaining to the reclamation of the airstrip
- potential for archaeological site disruption in the Ferguson Lake area
- potential for cumulative effects with other projects in the area
- consultation requirements for the Proponent

On February 13, 2007 NIRB received Starfield's Response to Comments from Parties.

On February 14, 2007 NIRB provided interested Parties with the opportunity to review Starfield's Response to Comments from Parties, and requested comments by February 21, 2007. Based on a request from the Baker Lake Hunters and Trappers Organization, NIRB extended the deadline for Parties to comment to March 2, 2007.

On March 2, 2007 NIRB was notified by Indian and Northern Affairs Canada (INAC) that Starfield Resources required a Class A Land Use Permit for the proposed Right-of-Way, due to crossings over Crown land. NIRB notified INAC that the application for the Class A Land Use Permit was to be included as part of this Part 4 Screening.

On or before Friday March 2, 2007, NIRB received further comments from the following Parties:

- Beverly and Qamanirjuaq Caribou Management Board
- Government of Nunavut Department of Environment
- Environment Canada
- Government of Nunavut Culture, Language, Elders and Youth
- Ferguson Lake Natives

The following environmental issues were still outstanding:

- Proponent recognition of the vulnerability of caribou during spring migration, calving and post-calving periods and the effect project activities may have on the caribou
- Adequacy of the Wildlife Management Plan regarding caribou-related concerns and migratory birds
- Clarification regarding Traditional Knowledge studies and archaeological studies
- Water quality monitoring around the airstrip and all-weather road
- Waste management procedures
- Spill response units
- Information related to the aggregate removal for construction of the all-weather road
- Decommissioning of the all-weather road, airstrip and helicopter pad

NIRB provided the Proponent with a final opportunity to respond to these concerns, and Starfield Resources submitted additional information on March 14, 2007 responding to each Party's concerns.

Appendix B – Proponent Commitments

- Any proposed areas of ground disturbance, including exploration drilling locations and the proposed routes to the facilities location will be evaluated by a qualified archaeologist.
- A summary of the work [archaeological studies] conducted in 2005 and 2006 will be forwarded to the Ferguson Lake Natives by Monday, March 19, 2007.
- Starfield initiated archaeological studies in the Ferguson Lake Project area in 2005. Studies were conducted in 2006 and will continue in 2007.
- In 2007, Ferguson Lake Natives will be involved as assistants and observers in the ongoing archaeological work to be conducted by Starfield Resources.
- Starfield commits to meet with the Ferguson Lake Natives as they have significant cultural heritage which the company plans to preserve.
- Starfield will initiate this year [2007] a socio-economic baseline study for its project.
- Starfield Resources will be monitoring water quality for total suspended solids at the outlets of the drainage ditches and in any immediate receiving waterbody.
- Starfield Resources will initiate a Waste Management program whereby waste will be sorted and disposed of in an effort to reduce furans and dioxins [as a result of waste incineration] in accordance to Canada-wide Standards. A double-chambered incinerator (Model Portable Electric Cyclonator Incinerator Cy 1050 FA "D") will be installed onsite to increase emissions quality.
- Starfield Resources has received a Hazardous Waste Generator application for registration with DOE and will obtain Waste Manifest documents, for the transportation of hazardous waste, when a Generator number is assigned by the DOE.
- In the event that Starfield has to transport hazardous waste off site, the waste will be transported through either Rankin Inlet, Nunavut or Thompson, Manitoba to an approved facility.
- The Kivalliq Inuit Association, in consultation with Starfield Resources, will provide wildlife observers during the critical caribou periods to monitor and advise on activity in the project area. The observers will ensure that the Wildlife Management Plan is implemented.
- Starfield Resources will adhere to the minimum number of flights required for the ongoing viability and the safety of the project. These mitigation strategies will be incorporated in the revised Wildlife Management Plan, including the requirement for aircraft to maintain a flight altitude of at least 610 m during horizontal flight [and] maintain a vertical distance of 1000 m and minimum horizontal of 1500 m from any observed concentrations of birds.
- Starfield will continue daily wildlife monitoring program and if any significant number of caribou arrive earlier than historic observations, then Starfield will initiate the monitoring program established with the Kivalliq Inuit Association observers.
- The Wildlife Management Plan proposed by Starfield will be revised and modified to provide a more detailed plan that will include components such as monitoring frequency, monitoring period, area and distance to monitor, mitigative measures, etc. This revised plan will be prepared in collaboration with the Kivalliq Inuit Association and the [GN] regional biologist in Arviat (Mitch Campbell).
- As part of the revised Wildlife Management Plan, Starfield Resources will monitor the effectiveness of the mitigation measures, to the best of Starfield's abilities.
- Starfield Resources will inform, in writing, its contractors and sub-contractors of the regulations (regarding aircraft heights).
- Aircraft pilots will follow height regulations, as described by the DIAND Caribou Protection Measures, and ensure that limited low level flights are undertaken during critical periods as identified by the wildlife observers previously mentioned.
- A Cat Train scout (on snowmobile) will ensure that the Cat Train avoids caribou.
- The Cat Train will stop before it encounters migrating caribou, and will not proceed across a migration route until the caribou have passed.

- Starfield Resources will meet the requirements of the CCME guidance document *Environmental Code of Practice of Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*.
- Starfield Resources will submit information on the amount of aggregate to be excavated, distance to water bodies, location of any water crossing and mitigation measures to prevent sedimentation of nearby water bodies for review as soon as it becomes available from their engineering consultants; Starfield anticipates that this information will be available by March 21st.
- Starfield is committed to ensure that no Acid Rock Degeneration results due to construction of the road.
- Starfield Resources will submit a revised Abandonment and Restoration Plan by March 21st.
- Additional sampling will be conducted of the contaminated soil within the project area in 2007. Once a better determination of the amount of contaminated soil is obtained, Starfield will provide these numbers to EC. Confirmatory sampling at the excavated areas will be conducted to ensure that all contamination has been removed.

Appendix C



BACKGROUND

Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

Palaeontology

Under the Nunavut Act¹, the federal government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

“archaeological site” means a place where an archaeological artifact is found.

¹

s. 51(1)

²

P.C. 2001-1111 14 June, 2001

“archaeological artifact” means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

“palaeontological site” means a site where a fossil is found.

“fossil” includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.

- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.
- 9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:
 - a) survey
 - b) inventory and documentation of the archaeological or palaeontological resources of the land use area
 - c) assessment of potential for damage to archaeological or palaeontological sites
 - d) mitigation
 - e) marking boundaries of archaeological or palaeontological sites
 - f) site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.