SCREENING PART 2 FORM
PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)

MINERAL EXPLORATION

Definition: A project proposal with the objective of exploring an area to find geological anomalies. It involves site reconnaissance to locate broad and fiscal mineral deposits.

1. SUBMISSIONS

The Proponent must submit all information pertaining to the Project as a whole. The information requirements below are designed for the purpose of environmental assessment and are not limited to the scope of a single permit or license application.

NIRB does not accept references to an ftp site as a submission.

Provide NIRB with 1 (one) electronic copy and 1 (one) hardcopy of the following information in English.

All maps should be legible, electronic, include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, and a north arrow. To the extent possible, avoid hand-drawn demarcations.

Please respond to all requests below, indicated by the number. If the request is not applicable to the project proposal, please indicate this in the response. If the request has been answered in a different section or report, please note the section or report where the response can be found.

All information and submissions must be accurate and signed and dated by the Proponent.

2. PROJECT DESCRIPTION

General

1. Name and location of proposed project.

   Name: Ferguson Lake Camp

   Location: Ranging between 200 metres and 3 kilometres inland from the southwest shore of Ferguson Lake. The area of undertaking is located on Map Sheet NTS 065I15. The proposed camp site location is centered at approximately Latitude 62° 53' 33.66" North, Longitude 95° 54' 15.03" West.

2. Contact information for proponent(s) and other project contacts.

   See KIA Application for access to IOL

3. List of acts, regulations and guidelines that apply to project activities

   - Article 13 - Nunavut Land Claims Agreement
   - NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
   - NWB - Interim Rules of Practice and Procedure for Public Hearings
   - NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
   - NWTWB - Guidelines for Contingency Planning
   - DFO - Freshwater Intake End of Pipe Fish Screen Guideline
   - Fisheries Act - s.35
   - RWED - Environment Protection- Spill Contingency Regulations
   - Canadian Drinking Water Quality Guidelines
   - Public Health Act Camp Sanitation Regulations
   - Public Health Act Water Supply Regulations
   - Territorial Land Use Act and Regulations

4. List of approvals, permits and licenses required including the authorizing agency, activity to which the authorization applies, and dates.

   Kivalliq Inuit Association: KVL399C150 Expires April 30, 2006 & KVL103B303 Expires March 24, 2006.
   Nunavut Water Board: NWB2FER0507 Expires July 1, 2007

Project Information

5. History of the site if it has been used in the past.

   Starfield Resources Inc. (Starfield) is exploring a significant nickel, copper and platinum group metals deposit located in an area of Inuit Owned Lands at Ferguson Lake in Nunavut. The mineral deposit was discovered in the 1950s and has been

extensively explored by Inco Ltd., Esso Minerals Canada and Homestake Mineral Development Company prior to being acquired by Starfield. This exploration has identified a 15 km long trend of mineralization that surfaces on both sides of the lake and has been tested by drilling under the lake and from the land surface. Starfield is concentrating on the western end of this trend.

Recent exploration has used the privately-owned Ferguson Lake Fishing Lodge located on an island in Ferguson Lake as a base camp. Starfield wishes to establish a new camp on the mainland to provide safer and more convenient access to the current exploration areas and to allow for potential expansion as activity on the site increases. The proposed camp site has been selected to serve the longer term needs of the project and would be expanded if the company proceeds to production. Considerably more work would be required on the deposit before a production decision could be made.

6. Map of the project site within a regional context indicating the distance to the closest communities.

   Refer to maps received from the KIA and NWB

7. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife.

   Refer to maps received from the KIA and NWB

8. Describe the type of mineral resource under exploration. Indicate if the mineral of interest is any of the following:

   - Base metals: nickel, copper and platinum

9. Discuss the project need and purpose.

   The Ferguson Lake "new" camp is required to support Starfield Resources exploration in the area, and the longer term needs of the project.

10. Discuss alternatives to the project and alternatives to project components.

    Project alternatives would be to remain at the present camp (Ferguson Camp) on the island, although the KIA has requested that Starfield Resources Inc. select a different camp location.

11. Indicate the type of exploration activity:

    Refer to NWB supplementary Drilling Questionnaire: Drilling information.

12. Describe **all** activities included in this project.

    Refer to KIA Application for access to IOL, the project description, NWB supplementary questionnaire, and NWB application for camp.

- Diamond drilling

  Refer to NWB supplementary camp questionnaire: Drilling information

- Camp use and/or construction

  Refer to Project Description: background and project description, and schedule

- Fuel transport and storage

  Refer to Spill Contingency Plan section 4.1 and 4.2

13. Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:

    These activities do not apply to the proposal.

14. If any of the DFO OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, please provide a signed statement of confirmation.

    N/A

15. Provide a schedule for the above activities

    N/A

Geophysical

N/A

16. Indicate on map the boundary subject to air and/or ground geophysical work.
17. Provide flight altitudes and locations where flight altitudes are below 300m.

Drilling

N/A, this land use application is for a new camp location. Drilling for the Ferguson Lake Project is covered under: KVL399C150, KVL103B303 and NWB2FER0507.

18. The number of drill holes and number of meters (provide estimates and maximums where possible).
19. Drill additives used.
20. Describe method for dealing with drill cuttings.
21. Describe method for dealing with drillwater.
22. Describe how drill equipment will be mobilized.
23. Describe how drill holes will be abandoned.
24. If project proposal involves uranium exploration drilling, consider the potential for radiation exposure and radiation protection measures.

Transport

Refer to Project description: Transportation.

25. Describe how the site will be accessed and how supplies will be brought to site. (show route on map)
26. If an airstrip is being used or constructed provide a description and its location. (show location on map).

Starfield Resources will continue to use the airstrip at the existing Ferguson camp. Refer to attached map: Ferguson Lake Area Site Evaluation for the location of the old airstrip.

Camp Site

Refer to NWB supplementary camp questionnaire, and Spill Contingency Plan - Section 3

27. A list of existing and proposed camp structures and infrastructure.
28. Describe the type of camp:
29. Maximum number of people expected on site.
30. Describe the source of power for the camp.

Equipment

Refer to Project description – Equipment

31. A list of equipment indicating uses and approximate dimensions.
32. If possible, provide digital photos of equipment.
33. Method of moving equipment within the project site.

The equipment will be driven to its required location.

Water

Refer to NWB supplementary camp questionnaire – Water supply and treatment, and attached maps.

34. Location of water source(s) (show on map).
35. The estimated rate of water consumption (L/d).
36. Describe water intakes. Describe methods for the prevention of fish entrapment.

Waste (Grey water, Sewage, Other)

Refer to NWB supplementary camp questionnaire: Waste treatment and disposal, and NWB Water license application: Section 8 - Waste, Spill Contingency Plan: Section 3.2.1, and Abandonment and Restoration plan.

37. Describe the characteristics, quantities, treatment, storage, transport, and disposal methods for the following:
    a. Sewage;
    b. Camp grey water;
    c. Combustible solid waste;

d. Non-combustible solid waste;
e. Bulky items/ scrap metal;
f. Waste oil/ hazardous waste;
g. Empty barrels/ fuel drums; and
h. Other.

Fuel

Refer to Spill Contingency Plan.

38. The types, quantities (number of containers, type of containers and capacity of containers), method of storage, method of containment, location of storage (show on map) and uses.
39. Describe secondary containment measures including the type of material or system used (for storage of fuel over 4000L).
40. Describe the method of fuel transfer and the method of refueling.

Chemicals and Hazardous Materials (i.e. oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries, cleaners)

Refer to NWB supplementary camp questionnaire – Waste treatment and disposal, and Drilling information, the Spill Contingency Plan, and the Abandonment and Restoration plan.

41. The types, quantities (number of containers, the type of container and capacity of containers), method of storage, method of containment, location of storage (show on map), and uses.
42. Describe any secondary containment measures including the type of material or system used.
43. Describe the method of chemical transfer.

Explosives

N/A

44. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), method of storage.

Public Involvement/ Traditional Knowledge

45. Describe the level of public involvement, a summary of public involvement measures, a summary of concerns expressed, and methods of addressing the concerns.

The communities are aware of the exploration that has been occurring in the area as well as Starfield Resources work in the area. With regards to the new camp location; Starfield will host a series of town meetings in the communities will be held in Rankin Inlet, Baker Lake, and Arviat.

3. DESCRIPTION OF THE EXISTING ENVIRONMENT

1. Describe the existing environment, including physical, biological and socioeconomic aspects. For guidance see Appendix A.

Physical Environment

The Ferguson Lake area is characterized by a sub arctic climate, and consists of low relief's with an elevation range of 114 m to 200 m. The terrain surrounding the project site consists of low hills and ridges separated by lakes, with the tree line being 150 km south of the project area. The permafrost extends to depths of up to 400 m. The proposed camp is located on a low ridge at an elevation between 120 and 130 m on a point on the southwest shore of Ferguson Lake. It is a level area of low bedrock outcrops and sand and gravel, suggesting good drainage.

The camp site is about 300 m from the nearest water body and about 900 m from Ferguson Lake. A 1999 baseline study conducted by Rescan Environmental Services Ltd. determined that Ferguson Lake has high quality water with near neutral pH, low nutrient concentrations, very low metals concentrations and high concentrations of dissolved oxygen. The same study found that stream entering Ferguson Lake are typically narrow and shallow, have low flows, provide average to low quality fish habitat and support low densities of small-bodied fish. The camp will not alter fish habitat.

Refer to the Preliminary Baseline Study Ferguson Lake Project Area for a more detailed description of the environment, specifically section 1.4: Site Description.

Biological Environment

Refer to the project description: components of the environment, 2001 & 2002 Wildlife Baseline Studies Ferguson Lake, and the Preliminary Baseline Study Ferguson Lake Project Area, 1999. An ecosystem and vegetation study, as well as another fisheries assessment are scheduled to be conducted this June-July by Rescan Environmental.

Socioeconomic Environment

The project site is very remote and not visited very often. The land use within the area consists of occasional subsistence harvesting.

An Archaeology study was conducted in the area of the proposed new camp site for potential archaeological potential in the summer of 2005. The study concluded that the area of the proposed new camp site is of low archaeological potential, and from an archaeological perspective development of the new Starfield camp can proceed. If unknown sites are encountered during camp construction work in the vicinity would cease until the archaeological resources can be assessed by a qualified archaeologist.

4. IDENTIFICATION OF IMPACTS

Refer to the project description for a description of impacts and mitigations.

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components in Appendix A. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non- mitigable (N), or unknown (U).
2. Discuss the impacts identified in the above table.

   Table 1 identifies sediment and soil quality, vegetation, and wildlife, including habitat and migration patterns as the environmental components that could have negative and mitigable impacts.

3. Discuss potential socioeconomic impacts

   Expected socioeconomic impacts include a small increase in the jobs available to the local communities.

4. Discuss potential for transboundary effects related to the project.

   N/A

5. MITIGATION OF IMPACTS

1. Describe measures to mitigate impacts to the physical, biological and socioeconomic environment as identified in Section 4.

   Refer to the NWB Water license application: Section 10 - Predicted environmental impacts of undertakings and proposed mitigation measures, as well the Abandonment and Restoration plan.

6. CUMULATIVE EFFECTS

1. Discuss how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

   Exploration around the Ferguson Lake has been active since 1950, thus leaving the impact of abandoned camps. The site for the new camp has not previously been used as a camp for mineral exploration, and the cumulative effects of another camp along the shores of Ferguson Lake are expected to be minimal with the incorporation of mitigation measures, and progressive reclamation.
   At the present time, on the island in Ferguson Lake, Starfield Resources has a 30 person camp at the Ferguson Lake Fishing Lodge. As according the Abandonment and Restoration Plan, any impacts at the present camp will be mitigated and/or remediated with its closure. It is anticipated that the new camp site would serve all future camp needs of the project. It has sufficient area that it could accommodate a much larger camp if a production decision is made, as well it is in a location where environmental disturbances would be minimal.

7. SUPPORTING DOCUMENTS

1. Please provide the following supporting documents:
   - Abandonment and Decommissioning Plan
   - Existing site photos with descriptions
   - Emergency Response and Spill Contingency Plan.

APPENDIX A

Physical Environment

- Proximity to designated environmental areas, including parks, heritage sites, sensitive areas and other protected areas.
- Eskers and other unique landscapes (e.g. sandhills, marshes, wetlands, floodplains).
- Evidence of ground, slope or rock instability, seismicity.
- Evidence of thermokarsts
- Evidence of ice lenses
- Surface and bedrock geology.
- Topography.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks).
- Sediment and soil quality.
- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones).
- Tidal processes and bathymetry in the project area.
- Water quality and quantity.
- Air quality.
- Climate conditions and predicted future climate trends.
- Noise levels.
- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Biological Environment

Refer to the project description – components of the environment, the 2001 & 2002 Wildlife Baseline Studies Ferguson Lake, and the Preliminary Baseline Study Ferguson Lake Project Area, 1999. An ecosystem and vegetation study, as well as another fisheries assessment are scheduled to be conducted this June-July by Rescan Environmental.

- Vegetation.
- Wildlife, including habitat and migration patterns.
- Birds, including habitat and migration patterns.
- Species of concern as identified by federal or territorial agencies.
- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Socioeconomic Environment

- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project and adjacent areas.
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.

- Local and regional traffic patterns.
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.