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NUNAVUT WATER BOARD

NUNAVUT IMALIRIYIN KATIMAYINGI

## EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Starfield Resources Inc. Licence No: \_\_\_\_\_

(For NWB Use Only)

### ADMINISTRATIVE INFORMATION

1. Environment Manager: Rescan Tel: 604-689-9460 Fax: 604-687-4277  
Contact : Latisha Heilman  
E-mail: [lheilman@rescan.com](mailto:lheilman@rescan.com)
2. Project Manager: John Nicholson Tel: 604 608 0400 Fax: 604 608 0344  
E-mail: [sfield@skycomip.com](mailto:sfield@skycomip.com), [john\\_nicholson@telus.net](mailto:john_nicholson@telus.net)
3. Does the applicant hold the necessary property rights?  
Yes.
4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)?  
If so, please provide letter of authorization.  
No.
5. Duration of the Project  
[ ] Annual  
[✓] Multi Year:  
If Multi-Year indicate proposed schedule of on site activities  
Start: January 1, 2006 Completion: Ongoing

### CAMP CLASSIFICATION

6. Type of Camp  
[ ] Mobile (self-propelled)  
[ ] Temporary  
[ ] Seasonally Occupied: \_\_\_\_\_  
[✓] Permanent  
[ ] Other: \_\_\_\_\_
7. What are the design population of the camp and the maximum population expected on site at one time? What will be the fluctuations in personnel?

Design population will be 30 people maximum. Occupancy will be seasonal, with anywhere from 1 to 30 people during the operational period. The operational period will be from March to December and a seasonal shutdown from December to March (2-3 care takers will stay on site).

8. Provide history of the site if it has been used in the past.

The proposed camp site has not been used in the past. Previously Starfield has leased a camp on an island in Ferguson Lake, about 4 km southeast of the proposed new camp site. The leased camp has been used for exploration on the site for several decades.

## CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

The camp site is situated 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 site is about 900 m south of the southwest shore of Ferguson Lake, and about 1,500 m from the south shore of the point. The nearest water body is a small pond about 300 m south of the proposed camp site. This pond drains to another pond and eventually south to Ferguson Lake.

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

The proposed camp site was located using helicopter over flights and on-the-ground examinations of a number of sites. It is located near a potential air strip site, several small borrow areas and a potential plant site should the property proceed to a production decision. It is anticipated that the site would serve all future camp needs of the project. It has sufficient area that it could accommodate a much large camp if a production decision is made.

The site has not previously been used as a camp for mineral exploration. No assistance was sought from the Regional Inuit Association Land Manager, although he has been made aware of the company's plans.

11. Is the camp or any aspect of the project located on:
- |                                                       |                                                             |
|-------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Crown Lands                  | Permit Number (s)/Expiry Date: _____                        |
| <input type="checkbox"/> Commissioners Lands          | Permit Number (s)/Expiry Date: _____                        |
| <input checked="" type="checkbox"/> Inuit Owned Lands | Permit Number (s)/Expiry Date: <u>Application submitted</u> |

12. Closest Communities (distance in km):

The site is about 160 km south of Baker Lake and 240 km west of Rankin Inlet.

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

The communities are aware of the exploration that has been occurring in the area as well as Starfields work in the area. With regards to the new camp location; Starfield will host a series of town meetings in the communities of Rankin Inlet, Baker Lake, and Arviat before December 6, 2005.

14. Will the project have impacts on traditional water use areas used by the nearby communities?  
Will the project have impacts on local fish and wildlife habitats?

The project is quite remote from the nearest communities and will not have impacts on their traditional water use areas.

The camp site is about 300 m from the nearest water body and about 900 m from Ferguson Lake. A 1999 baseline study 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 is not expected to alter fish habitat.

The camp is not expected to have adverse impacts on wildlife.

## PURPOSE OF THE CAMP

15. ☐ Mining  
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)  
(Omit questions # 16 to 21)  
☒ Other Exploration (Omit questions # 16 to 22)
16. ☐ Preliminary site visit  
☐ Prospecting  
☐ Geological mapping  
☐ Geophysical survey  
☐ Diamond drilling  
☐ Reverse circulation drilling  
☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)  
☐ Other: \_\_\_\_\_
17. Type of deposit:  
☐ Lead Zinc  
☐ Diamond  
☐ Gold  
☐ Uranium  
☐ Other

## DRILLING INFORMATION

18. Drilling Activities  
☐ Land Based drilling  
☐ Drilling on ice
19. Describe what will be done with drill cuttings?  
  
All drill cuttings will be bagged and stored on site, until removed.
20. Describe what will be done with drill water?

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.
22. Will any core testing be done on site? Describe.

## SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.

A contingency plan is in place. A copy is included.

24. How many spill kits will be on site and where will they be located?

Five spill kits will be maintained on the site. They will be located at the camp site, fuel storage and transfer areas, generator shack, and helipad area. One will be kept on site as an extra.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

Starfield will continue to use the airstrip on Ferguson Island to access the site and store excess fuel (under their current Land Use Licence's and Water License), only monthly supplies of fuel will be stored at the camp site.

Fuel Type	Container Type	Container Capacity	Total Volume to be Stored On-Site
P-50	Barrels	205L	15,375 L
Gasoline	Barrels	205L	112,750 L
Jet-B	Barrels	205L (sealed)	568 L
Propane	Pressured Tanks	100lb Tanks	100lbs

See attached electronic copy of MSDS sheets.

## WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Water for the camp will be pumped from Ferguson Lake.

27. Estimated demand (in L/day \* person):

- ④ Domestic Use: 7714.2 L/day/30 people Water Source: Ferguson Lake
- ④ Drilling Units: \_\_\_\_\_ Water Source: nearby lakes or streams
- Other: \_\_\_\_\_ Water Source: \_\_\_\_\_

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:

The water intake will be suspended above the bottom of Ferguson Lake near the shore and equipped with a large diameter screen to avoid fish entrapment.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

Ferguson Lake water is high quality. Monitoring will not be required.

30. Will drinking water be treated? How?

Drinking water will be filtered and treated with a UV treatment.

31. Will water be stored on site?

Treated water will be stored in two 2250L, and nine 2025L tanks. These tanks will be located in the water treatment complex which will consist of eleven tanks and a UV filter system.

## **WASTE TREATMENT AND DISPOSAL**

32. Describe the characteristics, quantities, treatment and disposal methods for:

④ **Camp Sewage (blackwater)**

Blackwater will be treated in a rotating biological contactor or similar treatment process scaled to accommodate the needs of a 30 person camp. Effluent will be high quality and suitable for direct discharge. Discharge will be to an excavated sump near the camp and well away from watercourses. Sludge will be collected from time to time, air dried and burned in the camp incinerator.

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④ **Camp Greywater**

Greywater will be combined with blackwater for treatment in a rotating biological contactor or similar treatment process scaled to the needs of a minimum 30 person camp. Effluent will be high quality and suitable for direct discharge. Discharge will be to an excavated sump near the camp and well away from watercourses. Sludge will be collected from time to time, air dried and burned in the camp incinerator.

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④ **Solid Waste**

Solid waste will be burned daily in the camp incinerator.

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④ **Bulky Items/Scrap Metal**

Bulky items and scrap metal will be back hauled from the site for recycling or disposal in approved land fills in established communities.

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④ **Waste Oil/Hazardous Waste**

Waste oil will be burned in the incinerator or used for heating purposes. Volumes may reach 100 litres per week.

④ Empty Barrels/Fuel Drums

Empty barrels and drums will be back hauled on supply flights for return to the vendors.

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○ Other:

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33. Please describe incineration system if used on site. What types of wastes will be incinerated?

The site will be equipped with a CY 1020 FA “D” KEYTECH incinerator. It will be used to dispose of domestic wastes from the kitchen and camp facilities as well as waste oil.

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

The non-combustible waste is back hauled to the Rankin landfill. Authorization has been granted to dispose of waste in the landfill.

35. Describe location (relative to water bodies and camp facilities ) dimensions and volume, and freeboard for sumps (if applicable).

A 12 m x 12 m x 1 m sump will be dug in well drained soils within 100 m of the camp, and 30m away from the high water mark.

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

Monthly sampling for faecal coliforms

Quarterly sampling for BOD and suspended solids

## **OPERATION AND MAINTENANCE**

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

Yes.

Water supply: O&M problems that may occur is a malfunctioning pump, or malfunctioning of the generator creating power to run the pump and heat the water intake line. Contingency: There is enough room in all of the water tanks to hold 22,725L of water, which will hold over the camp until either the pump or generator is fixed or replaced.

Waste Treatment: O&M problems that may occur is a malfunction of the Rotator Biological Contactor. Contingency: Staff on site will be trained in the mechanics and operation of the Rotator Biological Contactor and it will be maintained regularly with a maintenance check every week. If a malfunction does occur, the Rotator Biological Contactor has a storage rate of 6 months which is plenty of time to get the unit fixed.

## **ABANDONMENT AND RESTORATION**

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.  
See attached A&R Plan

## **BASELINE DATA**

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- ④ Physical Environment (Landscape and Terrain, Air, Water, etc.)
- ④ Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- ④ Socio-Economic Environment (Archaeology, Land and Resources Use, Demographics, Social and Culture Patterns, etc.)
- ④ Other: Wild life reports

Available studies include:

Rescan, 2003. *Preliminary Baseline Study, Ferguson Lake Project Area, 1999*. Prepared by Rescan Environmental Services Ltd. for Starfield Resources Inc., Vancouver, BC January 2003

Rescan, 2005. *Water Baseline Sampling Program 2005*. Prepared by Rescan Environmental Services Ltd. for Starfield Resources Inc., Vancouver, BC 2005

Points West, 2005. *Summary of 2005 Archaeological Investigations at the Ferguson Lake Study Area*. Prepared by Points West Heritage Consulting Ltd. for Rescan Environmental Services Ltd. Vancouver, BC July 2005

## **REGULATORY INFORMATION**

40. Do you have a copy of

- ④ Article 13 - Nunavut Land Claims Agreement
- ④ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ④ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ④ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ④ NWTWB - Guidelines for Contingency Planning
- ④ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ④ Fisheries Act - s.35
- ④ RWED - Environment Protection- Spill Contingency Regulations
- ④ Canadian Drinking Water Quality Guidelines
- ④ Public Health Act Camp Sanitation Regulations
- ④ Public Health Act Water Supply Regulations
- ④ Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.