Starfield Resources Inc. Ferguson Lake Project, Nunavut Abandonment and Restoration Plan, 2005

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1. PROJECT DESCRIPTION

1. Project Description

Starfield Resources mineral exploration program on their Ferguson Lake Cu-Ni-Co-PGE Project covers portions of NTS map sheets 65I/13, 14, and 15. This program includes regional and detailed geological mapping and prospecting, airborne and ground based geophysical surveys and a diamond drilling program. The exploration program is of low impact; an infill and step out diamond drill program at 15-20 locations on the west side of Ferguson Lake.

The program is permitted under Land Use Licenses: KVL399C150 and KVL103B303 and Water License NWB2FE20305.

1.1 Purpose of report

The purpose of this report is to provide an Abandonment and Restoration Plan for Starfield Resources present Land Use Licenses, and is required under Part 1, items 1 through to 6 of the Water License. This Abandonment and Restoration Plan is also to provide additional information as requested by the amendment applications for a location change of the camp site.

1.2 Camp sites

Starfield Resources has been conducting their research program from an existing camp (Ferguson Lake Camp) which is on an island on Ferguson Lake, located at latitude 62°52.64'N and longitude 96°50.72W. The site consists of a permanent lodge, portable buildings, and a gravel airstrip large enough to accommodate Twin Otter aircraft. Starfield Resources proposes to phase this camp out in January 2006, and begin restoration of the camp site area.

It is proposed to locate the new campsite approximately 3 km north east of the current Ferguson Lake Camp. The proposed new camp site location is centred approximately at Latitude 62° 53' 33.66" N, Longitude 95° 54' 15.03" W, and is located on Map Sheet NTS 65I/15.

Starfield Resources will continue to use the airstrip on Ferguson Island to access the site and store excess fuel, only monthly supplies of fuel will be stored at the New Camp Site.

2. REGULAR MAINTENANCE AND TEMPORARY CLOSURE

2. Regular Maintenance and Temporary Closure

The exploration program for the Ferguson Lake Project runs from March 15 to December 15, with a three month shut down period from December 15 to March 15. During this three month shut down period two to three caretakers remain on site to provide ongoing maintenance and watch the camp. The following details maintenance that is completed on continuing basis throughout the land use operation, seasonal closures, and temporary shutdowns.

2.1 Camp

The camp is maintained in a tidy orderly fashion. All staff upon arriving at the camp are trained in camp rules such as the Spill Contingency Plan, camp operations, how each type of waste is dealt with (incineration, storage until removal is applicable etc.).

In the case of short term temporary shutdown (less than a year), all portable wooden structures (survival shacks, generator shacks, etc.) will be stored in the camp area and other items of will be stored in the sheds and locked up. Items of value will be locked up in sea cans. The camp will be left free of any wastes or debris. If the temporary shut down is determined to occur over a period of a year or more; all equipment will be backhauled to Rankin Inlet and stored at M&T Enterprises.

Tables 2-1 and 2-2 show the building and equipment inventory to be left on site in a temporary closure.

Table 2-1
Buildings to be left on site in a temporary closure

Buildings	Size (feet)	Amount
Portable camp unit (30pp)	52x78	1
Portable generator sheds	8x12	6
Pump sheds	8x12	4
Safety sheds	8x12	5
Sea cans	8x20	3
Sewage treatment building	8x13	1
Storage sheds	16x16	4
Weatherhaven	14x16	3
Weatherhaven	16x24	2
Weatherhaven	20x30	1
Wooden shop	20x40	1
Wooden structures	16x32	4

Table 2-2
Equipment to be left on site in a short term temporary closure (less than one year)

Equipment Type	Number	Size
Articulated truck	1	250D
Dozer	1	D4 LGP
Excavator	1	320BL
Honda 4x4 Quads	4	
Loader	1	287BL
Snowcat	1	BR 160
Snowcoach		
Snowmobile	20	Various

2.2 Fuel Storage

All fuel storage and handling is guided by the procedures set out in the Spill and Contingency Plan for the Starfield Ferguson Lake Project.

Empty drums used during the exploration program are regularly rotated out of camp by fixed wing aircraft in order to be re-filled and then returned to camp during annual re-supply programs. Any empties that are deemed not worthy of holding fuel are back hauled to landfill sites by M&T Enterprises.

In the case of temporary shutdown, all of the fuel barrels will be removed to an approved location.

2.3 Sewage Disposal

Regular maintenance of the Rotating Biological Contactor (RBC) sewage treatment system includes a weekly visual inspection, and removing the sewage sludge every six months, air drying it, and incinerating it in the camp incinerator. In the case of temporary shutdown, any sludge in the RBC will be removed, air dried and incinerated. The unit will then be shut off.

2.4 Solid Wastes

All camp and kitchen wastes are incinerated daily in a CY 1020FA "D" KEYTEK Incinerator. Any waste that can not be incinerated is stored in barrels and removed to the Rankin Inlet landfill. In the case of temporary shutdown, all waste will either be incinerated or removed.

2.5 Waste Oil

Waste oil volumes from the camp and related activities will be approximately 0.1 cubic metres per week. Waste oil will be incinerated or used for heating purposes. In the case of temporary shutdown, all waste oil will be incinerated.

2.6 Hazardous Waste

There will be no hazardous waste materials on the project site.

2.7 Drill Holes

All drill sites are cleaned and maintained on a daily basis. Waste materials, garbage and any empty drums or propane cylinders are routinely returned to camp for incineration or removal to Rankin Inlet. Upon completion of an individual drill hole the drill rig and supplies are moved to a new site and the drill set up is cleaned of any debris and the area returned, as close as possible, to a pre-disturbed state. In the case of temporary shutdown, all drill sites will be cleaned.

2.8 Drill Cuttings and Sumps

All drill cuttings and sludge are collected utilizing a Bazooka collection system. Sludge is then bagged and flown to Thompson, Manitoba. Fines will be bagged weekly and removed from the site. In the event that water is flowing from a drill hole upon completion, the drill hole would be cemented or capped. Lake holes would be cemented. In the case of temporary shutdown, all bagged drill cuttings would be removed from the site.

2.9 Bulky Items/Scrap Metal

No bulky items have been brought on site by Starfield Resources Inc. Scrap metal in the form of drill rods will be the responsibility of the drilling contractor, and they will be removing them. All drilling scrap will be removed from the project site as backhaul on supply flights.

2.10 Water Intake

The water intake will be suspended above the bottom of Ferguson Lake nearshore. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's *Freshwater Intake End-of-Pipe Fish Screen Guidelines*. In the case of temporary shutdown, the water intake pump will be shut off.

2.11 Airstrip at Ferguson Lake Camp

The airstrip at the "old" Ferguson Lake Camp will continue to be used for a landing strip, and as a place for bulk fuel storage. In the case of temporary shutdown, the fuel containers will be removed, and the airstrip and surrounding area will be cleared of all imported materials and will be left in a stable configuration so that it can continue to be used as a landing strip for the Ferguson Lake Fishing Lodge.

2.12 Helicopter Landing Pad

The helicopter landing is regularly inspected to ensure there is no debris around the area. A spill kit is located close by in the event of accidental fuel spillage while refuelling the helicopter. In the case of temporary shutdown, all debris will be cleared around the helicopter pad.

2.13 Generator

The generators will be receiving regular maintenance. The generator shacks are equipped with Spill kits, and/or absorbent matting should there be a spill of gas while filling the generator. In the case of temporary shutdown, the generators will be turned off, and the shacks will be closed and locked.

3. FINAL ABANDONMENT AND RESTORATION

3. Final Abandonment and Restoration

3.1 Ferguson Lake Camp

Abandonment of the "old" Ferguson Lake Camp will occur when Starfield Resources receives the approved Land Use License and Water License Amendment for the new camp location. Starfield Resources would like to start the restoration of the Ferguson Lake Camp in the winter of 2006. Restoration of the airstrip will occur at a later date, because Starfield will continue to use the airstrip and store fuel there.

The restoration would start with the removing the Starfield-owned buildings and equipment at the Ferguson Lake Camp. All Starfield property and items used in connection with the camp will be either removed to the new camp site or burned. The last buildings and equipment would be taken across the lake to the new camp area no later than mid-May.

At snow melt, restoration of the land will begin. Any land that has been disturbed from the Ferguson Camp site, such as matted/stressed vegetation, vehicle ruts, land affected from petroleum spills, and any other areas of disturbance will be recontoured (if required), stabilized and re-vegetated with a northern seed variety. The restoration will be as close as possible to a pre-disturbed state. The grey water sump will be back filled, recontoured, stabilized and re-vegetated with a northern seed variety, and restored as close as possible to a pre-disturbed state.

A last inspection will ensure that there is no remaining material at the site and that there is little/no evidence of Starfield Resources land use activity at the Ferguson fishing lodge.

Written and photo documentation of the site restoration, will be provided to the Nunavut Water Board, and the Kivalliq Inuit Association

3.2 New Camp Site and Drilling Operation

3.2.1 Time Frame

The Ferguson Lake Project is still in exploration stage therefore it is not practicable at this time to subscribe to a definitive schedule for the conclusion of this land use operation. The present Water License MWB2FER0507 expires in July 2007, and the present Land Use Licenses KVL399C150 and KVL103B303 expire on April 30, 2006 and March 25, 2006 respectively. Starfield Resources is going to apply for extensions to these licenses to continue its land use of the Ferguson lake area. However; if an early closure occurs, or upon Starfield Resources completion of the land use operation, the following procedures will be followed to allow for proper abandonment and restoration of the area.

3.2.2 Site and Camp Description

The proposed camp site and core storage area 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 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.

The camp configuration will consist of a 30 person portable camp with integrated facilities for sleeping, cooking, eating, recreation and washing, as well as structures for water and waste treatment, a core shack, ski-doo shed, wooden shop, office, safety shack, storage sheds, weatherhavens, and pump sheds.

The camp will be in operation from March 15 to December 15 with a maximum of 30 people, and from December 15 to March 15 with 2 to 3 caretakers. It will be permanent camp with the possibility for expansion to support more people if the project goes into production phase.

Little environmental impact is anticipated from the construction of the camp. The proposed camp area was chosen because it will cause very little if no damage at all to the existing area in the way of vegetation. The proposed camp is located on an exposed bedrock and gravel site with minimal vegetation, which includes some cotton grass, and dwarf shrubs. To further reduce any possible impact to vegetation, the camp layout will be designed to minimize the area of surface disturbance and the majority of buildings will be placed wholly on gravel or bedrock.

3.2.3 Restoration procedures

3.2.3.1 Camp

When the camp is no longer required all structures, temporary buildings, machinery, equipment, materials, fuel drums, storage containers, and any other items used in connection with the camp will either be burned or removed from the site. The area will be stabilized and re-vegetated with a northern seed variety, and restored as close as possible to a pre-disturbed state.

3.2.3.2 Fuel

Upon closure all fuel drums will be removed and the non-reusable drums will go to the Rankin Inlet land fill. The containment system will either be removed or recontoured, and the area around the fuel containment will be sampled for hydro-carbon contamination. If there is any hydrocarbon contamination, the contaminated materials will removed and the area will be stabilized and re-vegetated with a northern seed variety, and restored as close as possible to a pre-disturbed state.

3.2.3.3 Waste Water Sump

With the treatment system of the Rotating Biological Contactor (RBC) there is no contamination to the sump. The water discharge is above water quality guidelines, and all sludge is incinerated. The sump is only present as a contingency in case the RBC has a breakdown, and the effluent does not meet the effluent quality criteria.

At time of closure the sump will be backfilled, recontoured and seeded with a northern seed variety.

3.2.3.4 Solid Wastes

At the time of closure most wastes will be incinerated. Any waste that can not be incinerated will be placed in barrels and removed to the Rankin Inlet landfill. At time of closure the Incinerator will be removed along with any barrels of garbage. The soil under and around the incinerator will be stabilized and re-vegetated with a northern seed variety, and restored to a pre-disturbed state.

3.2.3.5 Waste Oil

All waste oil will be incinerated

3.2.3.6 Hazardous Waste

There will be no hazardous materials on the project site.

3.2.3.7 Drill Sites, Sumps and Cuttings

All drill sites, sumps, and cuttings are dealt with and reclaimed at the completion of a hole. For final restoration all old drill sites, sumps and cuttings will be re-inspected to ensure that all areas have been restored as close as possible to a pre-disturbed state.

3.2.3.8 Bulky Items

No bulky items have been brought on site by Starfield Resources Inc. Scrap metal in the form of drill rods will be the responsibility of the drilling contractor, and they will be removing them. All drilling scrap will be removed from the project site as backhaul on supply flights.

3.2.3.9 Water Intake

Upon closure the water intake pipe and pump from Ferguson Lake will be removed, and backhauled off the site.

3.2.3.10 Airstrip at Ferguson Lake Camp

When the airstrip at the "old" Ferguson Lake Camp is no longer required by Starfield Resources, the fuel storage area will be removed. All fuel drums will be removed and the non-reusable drums will go to the Rankin Inlet land fill. The containment area will be recontoured, and the area around the fuel containment will be sampled for hydro-carbon contamination. If there are any contaminated soils/rocks they will removed and the area will be stabilized and re-vegetated with a northern seed variety, and restored as close as possible to a pre-disturbed state.

The airstrip and surrounding area will be cleared of all imported materials and will be left in a stable configuration so that it can continue to be used as a landing strip for the Ferguson Lake Fishing Lodge.

3.2.3.11 Helicopter Landing Pad

Upon closure all debris around the helicopter landing area will be removed. The area will be stabilized and re-vegetated with a northern seed variety (if need be), and restored to a pre-disturbed state.

3.2.3.12 Generators

Upon closure the generator shacks will be removed from the site, and the area around the shacks will be inspected for hydrocarbon spills, stabilized and re-vegetated with a northern seed variety (if need be), and restored to a pre-disturbed state.

4. SUMMARY

4. Summary

Starfield Resources Inc. will operate the camp in a safe, efficient and environmentally responsible manner. The camp site will be kept in conditions that meet or exceed permit specifications. All wastes, materials, or used equipment will be treated as required or removed from the site as soon as practical. At time of closure, the disturbed area will be returned to a pre-disturbed state and to the satisfaction of an Inspector.