

**STARFIELD RESOURCES
FERGUSON LAKE PROJECT
FERGUSON LAKE, NT**

NTS 65I/13,14,15

SPILL CONTINGENCY PLAN

**APRIL
2005**

**Starfield Resources Inc.
Ferguson Lake Project-Nunavut
Spill Contingency Plan 2005**

Section A

Dates of Operation: April 2005 to December 2005

Project Description

Starfield Resources Inc will be performing a multi-phased exploration program on their 100% owned Ferguson Lake Cu-Ni-Co-Pd-Pt Project. The area of exploration will be covered on NTS map sheets 65I14/65I15. The program will consist of but not limited to infill diamond drilling, prospecting, mapping, both ground and airborne geophysics and further environmental studies. Expenditures for the year 2005 will be in excess of \$6,000,000. All field activities will be limited to helicopter access. The exception being those months when travel by ski-doo and or bombardier are possible. All materials for this year's program will be transported to site via overland routes from Churchill Manitoba as laid out by M&T Enterprises (Rankin Inlet) and via fixed wing aircraft.

Site Description

Starfield Resources will be conducting its exploration program from the Ferguson Lake Fishing Lodge, located on Ferguson Lake. The lodge is being leased by Starfield Resources on a year to year basis from Keith Sharp of Rankin Inlet, the owner of the Ferguson Lake Fishing Lodge. The lodge is perched 100 meters above Ferguson Lake on a mat of gravel and bedrock and is located 500-1000 meters from the waters edge. Access to the lodge in the winter months is by winter ice strip and overland routes. Access to the lodge in the summer months is by gravel airstrip located approximately 1500 meters from the lodge. The winter strip is capable of handling all types of aircraft. The gravel strip is restricted to STOL aircraft such as the Cessna Caravan and or Twin Otter.

Types of Fuels and Lubricants

The types of fuel and lubricants that will be stored on site will consist of P-50 diesel motive, JET-B, Gasoline, Propane and an assortment of hydraulic oils and motor oils. The P-50 diesel motive will be used for heating purposes and the powering of generators, drills, pumps, and other related heavy equipment. The JET-B will be used for the purposes of helicopter refueling and also for heating purposes. Gasoline will be used for the purposes re-fuelling ski-doo's. The propane will be used for heating and cooking purposes. Oils and lubricants will be used on the drills and heavy equipment.

Fuel and Lubricant Storage

Presently all P-50 and JET-B fuel is stored in 205L barrels. All fuel is stored in fuel caches of 100 barrels each. All of the P-50 and JET-B fuel products are stored adjacent to the Ferguson Lake airstrip a gravel airstrip located approximately 2000 meters from the waters edge of Ferguson Lake. All fuel is stored on well sorted gravels. Propane is stored in storage racks of 50 tanks per rack. All propane is racked and chained in place. Propane is located at the Ferguson Lake Airstrip. All lubricants and oils are stored at the Ferguson Lake Camp site in the "Oil Shed" which consists of a 12x16 secured wooden shed.

Fuel Quantities

All fuels are stored in 205L drums. The P-50 is stored in barrels that previously contained sealed JET-B. Prior to being re-used for P-50 storage, all drums and seals are inspected. Drums that are showing signs of weakness and fatigue are discarded. All rubber seals prior to re-filling are replaced. All JET-B products are contained in 205L drums. All drums are factory sealed. Any drums whose seals have been broken are used for purposes other than for re-fueling of aircraft.

Amounts to be stored on site are as follows:

Diesel Fuel P-50	500-700 barrels	102,250-143,500	liters
Jet B	350-500 barrels	71,500-102,250	liters
Gasoline	25 barrels	5125	liters
Oils-Lubricants	25 10 liter		plastic containers

Section B

POTENTIAL SPILL INCIDENTS

Orientation and Training

All field personnel and staff upon arriving at the camp are given a safety orientation and also are given a project overview. The project overview will include but not be limited to the following:

- location of all fuels and fuel products
- location of WHMIS and MSDS sheets
- location of spill kits and fuel spill equipment
- instruction of the use of spill kits
- instruction on the use of spill equipment
- instruction on the clean-up and disposal of fuel products contained in a potential fuel spill

LEAKAGE FROM STORED DRUMS

-all fuel drums (205L) are stored in fuel caches of 100 drums each. All fuel is stored in caches according to their fuel types. All drums prior to fuel storage are inspected for broken seals, leaks and loose bungs.

Drum Storage-Incident

-fuel may leak from improperly sealed and or punctured drums.

Consequence

-fuel spillage could occur resulting in minor splashes and or puddles of fuel

Preventative Measures

-prior to fuel refilling of drums, all drums are inspected for pronounced dents, peeling of inside liner and cracks in rubber seals and O-rings. Any barrels that are found to be non usable are discarded and flown off site. All O-Rings and rubber seals are replaced with new seals.

-spill kits and fire extinguishers are located proximal to all fuel caches

REFUELLING OF AIRCRAFT

-all refueling of fixed wing and or rotary aircraft are performed by employees and or contract employees of the contracted company who are trained in the fueling and handling of fuel products. All fuel is transferred to the aircraft by electric fuel pump. All pilots and engineers associated with the fueling are made aware of the location of spill kits and absorbent matting should the need arise.

Aircraft Refueling Equipment-Incident

-refueling of the aircraft could result in fuel spillage as a result of a hose break, over fueling and or the hose could fall out of the barrel and or aircraft.

Consequences

-fuel spillage could occur resulting in minor splashes and or puddles of fuel

Preventative Measures

-fuel lines, connectors are checked on a regular basis. As well certain care and attention are always maintained while refueling the aircraft.

-all aircraft are fuelled by flight personnel only

-all aircraft are fuelled from fuel caches thus confining the area of potential spillage.

-all drums used for the purposes of JET Fuel are factory sealed thus eliminating certain potential leaks.

-spill kits, absorbent matting and fire extinguishers are all stored proximal to the fuel cache.

REFUELLING OF SKI-DOO'S

-all ski-doo's are re-fueled utilizing hand (wobble) pumps which are screw fitted to a gas barrel.

Ski-doo Refueling – Incident

-during refueling spillage may occur as a result of a hose breaking and or the overfilling of the machine.

Consequences

-fuel spillage could occur resulting in minor splashes and or puddles of fuel

Preventative Measures

-refueling of equipment will be limited to fuel cache areas only. Blue absorbent matting and spill kits are located proximal to fuel cache.

REFUELING OF CAMP, STOVES and GENERATOR

-the refueling of camp, stoves and generator are all done utilizing electric pumps. Fuel is transferred from full 205L fuel drums to empty 205L fuel drums which are used to hold fuel for Camp Stoves. Fuel for the generator is transferred from 205L barrels to a supply fuel tank.

Camp, Stoves and Generator – Incidents

-during the refueling of Camp, Stoves and the Generator, spillage may occur as a result of a broken hose and or the over filling of fuel drums and supply tank.

Consequences

-fuel spillage could occur resulting in minor splashes and or puddles of fuel

Preventative Measures

-all re-fueling equipment is checked on a regular basis. All re-fueling is performed by trained personnel.

- spill kits and absorbent matting is located proximal to areas of re-fueling. All drums used for the purposes of holding stove oil (heating oil) have blue absorbent matting as an underlay.
- all shutoff valves and spigots from tank have a blue matting wrap to prevent loss of any fuel at the shut-off valve area.
- all barrels being pumped from have a blue absorbent underlay.
- blue absorbent matting is kept under the generator to absorb any and all fuel, oil and or hydraulic leaks that may occur.

REFUELING OF DIAMOND DRILL and RELATED DRILLING EQUIPMENT

- the refueling of diamond drill(s) and drilling equipment is done utilizing electric fuel pumps. All fuel products are transferred from 205L fuel drums to 205L fuel tanks which are utilized for the purposes of storing fuel for drilling purposes.

Consequences

- fuel spillage could occur resulting in minor splashes and or puddles of fuel

Preventative Measures

- all re-fueling equipment is checked on a regular basis. All re-fueling is performed by trained personnel of Major Drilling.
- all fuel drums are placed on a wooden platform upon which blue absorbent matting is placed thus containing any spills to the blue matting and platform area.
- spill kits and blue matting is located proximal to the fuel and to the drill.
- all drill motors and related hydraulic motors have blue absorbent matting placed underneath them to absorb any minor hydraulic and or fuel leaks.

REFUELING OF HEAVY EQUIPMENT-TRACK TYPE VEHICLES

- the refueling of all tracked vehicles is done utilizing electric fuel pumps. All fuel products are transferred from 205L fuel drums to self contained tanks on the equipment.

Consequences

- fuel spillage could occur. Spillage would be limited and could result in minor splashes and or puddles of fuel

Preventative Measures

- all re-fueling equipment is checked on a regular basis.
- all fueling of equipment is performed by trained operators of the heavy equipment.
- all fuel barrels for the purposes of refueling heavy equipment have blue matting placed under them as an underlay.
- all equipment is refueled from areas of fuel caches.
- spill kits and blue matting are located proximal to the fuel caches.

Section C

LIST OF ON-SITE SPILL CONTAINMENT EQUIPMENT

Spill Kits

-a minimum of four spill kits will be maintained on site. Sites that will have spill kits are as follows:

- helicopter refueling area
- drilling operations (1 per drill)
- camp general
- fuel cache area

Blue Absorbent Matting

-a minimum of 8 rolls will be maintained on site. Sites with matting will include the following areas:

- generator shack
- camp general
- helipad area
- drill set up
- fuel cache
- 3 spares

Hand Tools

-all hand tools are stored in supply shed along with blue matting. Tools will be used for the purposes of containing spill and or cleaning up of spill.

Plastic Pails, Buckets and Bags

-these are stored in supply shed. Sufficient 20L plastic pails are maintained on site as are 20L plastic and carry bags. These would be used for the disposal of contaminated material(s).

Section D
SPILL REPORTING PROCEDURE

Contact Telephone Numbers

Emergency Spill Hotline	(867)920-8130
Starfield Resources	
Vancouver Office	(604)608-0400
Ferguson Lake Project	(604)515-0398
Nunavut Impact Review Board	(867)983-2593
Kivalliq Inuit Association	(867)645-2348
INAC Resource Management-Kivalliq	(867)645-2831
Department of Fisheries and Oceans	(867)645-2871
Nunavut Water Board	(867)793-2140

Section E

SPILL RESPONSE PROCEDURE

In the event of a spill at Starfield Resources Ferguson Lake Project, the following procedures would be followed.

1.0 *Identify the Type of Product Spilled.*

In the event of a spilled product, every effort will be made to identify product. If the product can not be identified, then the worst must be assumed. Personnel are not to smell, taste, and touch and or attempt to reach the ruptured container and or area of containment

2.0 *Assess the Dangers and Hazards*

An immediate assessment of the affected site must be completed. Determination of the flow and direction in which the spill's progress is advancing must be determined and whether or not potential areas of concern such as waterways, lakes and or streams will be affected. Also it must be assessed whether or not the spill is contained to surface and are fumes a concern and if so will they pose health concerns and or injuries.

3.0 *Stop the Flow at Source*

Has the flow been stopped or is it still leaking. Is there an emergency shut-off valve? Have the holes in container been patched? Can they be patched? Is the container empty? Can the contents from the drum be pumped to another container? STOPPAGE OF FLOW MUST ONLY BE DONE IF IT IS POSSIBLE AND SAFE TO DO SO.

4.0 *Take Actions to Contain the Spill*

Prompt containment can reduce environmental exposure and risk. Land based action would consist of standing the barrel upright to pumping the barrel empty to a new drum and the containment of the spill utilizing berms and diversions, and collection trenches. Water based measures could result in the implementation of water booms and the construction of dykes and or small dams of sorts.

5.0 *Report Action to the NWT Spills Hotline*

All spills are to be reported to the NWT. The person reporting the spill should provide the following information:

- date and time of spill
- direction in which spill is advancing and whether or not the spill has stopped
- the name and telephone number of the person reporting the incident at the spill location site
- name of person supervising the spill clean-up
- amount and type of spill that has occurred
- the cause of the spill
- description of where the spill has been confined to

Section F

REPORTING PROCEDURE-CHAIN OF EVENTS

1.0 Personnel Notice Spill

- is the source of the spill still flowing
- can the source of the flow be turned off
- can the leak be stopped by standing the leaking container upright.

2.0 Notification of On-site Supervisor

- the on site supervisor will be notified of any and all spills
- if the fuel flow can be quickly and easily stopped and contained, than this should be done prior to notifying the Project Supervisor.
- upon notification, the Project Supervisor will implement a program of immediate action to stop and contain the spill and begin the clean-up of the spill.

3.0 Notification of Agencies and the Affected Communities

- the Project Supervisor would notify the NWT Spills Hotline (867)920-8130 and file a report. The NWT Hotline will thence notify the proper authorities.
- the Project Supervisor will then notify the affected communities and or community.