High Lake Project

Spill Contingency Plan

Wolfden Resources Inc.

Prepared by
Ian Neill
Project Geologist
23 June 2005

High Lake Project Spill Contingency Plan

Wolfden Resources Inc.

1. Preamble

The Spill Contingency Plan is effective from July 29, 2005 to July 29, 2006 and applies to the High Lake Project operated by Wolfden Resources in the Kitikmeot District of Nunavut, north latitude 67° 22' 46" and west longitude 110° 50' 31". The project is under agreement with Nunavut Tunngavik Incorporated (NTI). Land Use permit's with the Kitimeot Inuit Association (KIA) and Nunavut Water Board (NWB) are currently in place.

See map 1 in the Detailed Project Description-Appendix A.

The following formal distribution has been made of this plan: KIA, NWB, Greg Duso (Assistant Project Manager - Wolfden Resources), Ted Muraro (Camp Manager – Wolfden Resources), Ewan Downie (President – Wolfden Resources).

2. Introduction

The purpose of this Spill Contingency Plan is to provide a plan of action for every foreseeable spill event at the High Lake project. It defines the responsibilities of key response personnel and outlines the procedures for responding to spill in a way that will minimize potential health and safety hazards, environmental damage and clean up costs. The plan has been prepared to provide easy access to all the information needed in dealing with a spill.

It is Wolfden Resources policy to comply with all existing laws and regulations to help ensure the protection of the environment, to provide such protection of the environment as is technically feasible, to cooperate with other groups working on protection of the environment and to keep employees, government officials and the public informed.

The personnel upon arrival at camp will be instructed on the plan, on how to properly manipulate and store fuel and other hazardous substances and on the location of emergency equipment. A more graphic version of this plan will be posted in common camp areas. The camp will be built only in July 2004 so the final building layout could change. Updates will be made if necessary and copies sent to the distribution list.

3. Site Description

The camp is located on the Southwest shore of High Lake. The site was chosen because it was the location of the original campsite chosen in the 1950's when work on the High Lake deposit was first initiated. Two of the buildings at the camp site date from this period.

The camp consists of 10 wooden buildings, between the dimensions 12'x12' to 16' x 32'. These wooden building comprise: 2 core shacks, 1 office, 1 foreman's office, 1 sleeper, 1 kitchen, 1 dry, 1 workshop, 1 foremans storage / generator, and 1 rec./tv area. In addition, there are 12 plywood floor canvas walled tents which are used for sleepers, storage, and fist aid. See attached maps for general camp layout.

Fuel is transported to the site by Buffalo or Hercules ice strip directly onto High Lake. Fuel is then immediately moved by helicopter to one of three fuel caches. The main fuel cache is located 100m north of the camp site and 150m west of the shore of High Lake. This is the primary cache for Jet fuel and Diesel used by the project. A second cache is located 50m southwest of camp and is used primarily for heating fuel for winter camp operations. A small cache is also established at the West Zone drilling site to act as an emergency supply of fuel in case weather does not allow re-supply of the drilling rigs.

Fuel is stored in 205L drums on racks constructed from drill steel. Drums are elevated off the ground with bungs positioned for easy inspection for leaks. Between all fuel caches after full winter re-supply the total number of drums on site will be 1500 diesel and 750 Jet-B.

Propane is stored in 100lb cylinders at the south end of camp on a separate storage platform. It is supported by a 2'' x 4" framework to prevent accidental tipping of propane cylinders. Propane is brought in to site continually on re-supply flights, with total number of cylinders stored on site not exceeding 30.

Each of the main buildings will have a drum of fuel supported on a wooden crib. A plastic spill container will be placed below each stove and absorbent matting will be zap strapped around each bung / fuel supply assembly.

Other chemicals will be securely stored in the camp area, primarily within the drill forman's work area.

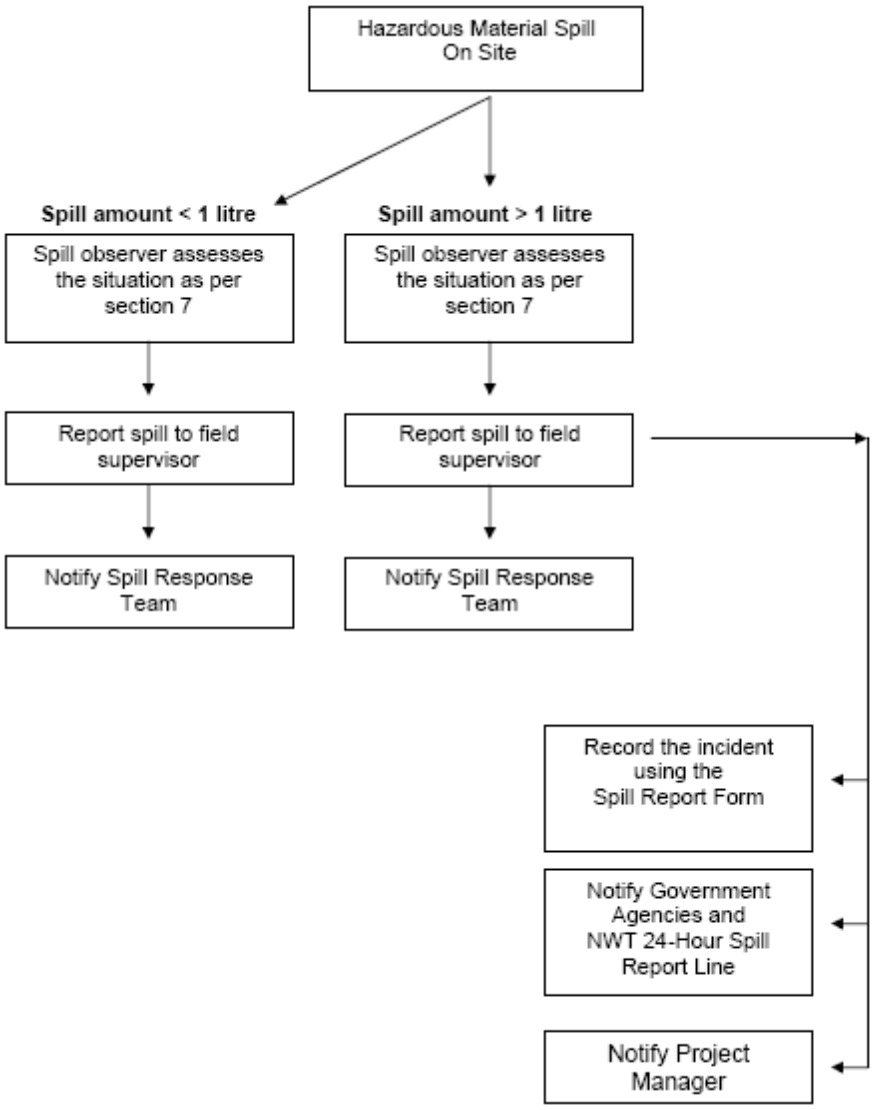
4. Contacts

People and organizations that can be contacted:

Camp Manager	Ted Muraro	(604)-759-0473
Field Supervisor	Greg Duso	(604)-759-0473
Project Manager	Ian Neill	(778)-772-5631
Wolfden Head Office	Ewan Downie	(807)-346-1668
Kitikmeot Inuit Association	Jack Kaniak	(867)-982-3310
Nunavut Water Board	Phyllis Beaulieu	(867)-360-6338 (867)-360-6369 (fax)
Spill Report Line (24 hr)		(867)-920-8130 (867)-873-6924 (fax)
Environment Canada		(867)-669-4700 (867)-873-8185 (fax)
WCB 24 Hour Accidents		(867)-873-7468
WCB Inspector	Peter Bengts	(867)-920-3888
Kugluktuk Health Center	Janet Carstairs	(867)-982-4531
Kugluktuk RCMP	Franco Radescho	(867)-982-1111 (867)-920-8130 (fax)

5. Response Organization

The following is a flow chart to illustrate the sequence of events if a hazardous material spill occurs at the High Lake Project.



6. Spill Response Team

All personnel will be instructed on the Spill Contingency Plan and trained at using safely the equipment. The Field Supervisor will appoint and train two persons to be the Spill Response Team. They will also be responsible to carry the daily inspections of the fuel caches and equipment. Personnel on site will be limited, so for any large spill more people will be brought in to help, primarily from Wolfden's ULU project located 50km south of High Lake ad secondly from Yellowknife.

Spill Response Team Responsibilities

- Perform daily inspections at the Camp fuel cache, chemical storage areas and to fuel hoses.
- Report any spill to Field Supervisor
- Containment of the spill and site remediation.

Field Supervisor responsibilities

- Assume complete authority over the spill scene and coordinate all personnel involved.
- Evaluate spill situation and develop overall plan of action.
- Activate the spill contingency plan
- Immediately report the spill to the NWT 24-Hour Spill Report Line (867) 920-8130 and regulatory agencies. (For spill greater than 1 litre)
- Fill the Spill Report Form (for spill greater than 1 litre)
- Report the spill to the Project Manager. (For spill greater than 1 litre)
- Obtain additional manpower, equipment, and material if not available on site for spill response.

Project Manager responsibilities

- Provide regulatory agencies and Wolfden Resources management with information regarding the status of the clean up activities.
- Prepare and submit a report on the spill incident to regulatory agencies within 30 days of the event.

7. Initial Action

These instructions are to be followed by the first person on the spill scene

1. **Always be alert and consider your safety first.**
2. **Wear personal protective equipment**
3. **Do not smoke and eliminate all source of ignition**
4. Assess the hazard to people in the vicinity of the spill.
5. If possible control danger to human life
6. Do not touch, smell, taste or get close to unknown substance.
7. If substance has been identified and if possible and safe to do so, try to stop the flow of material.
    - If filling is in progress, stop at once
    - If seeping through a small hole, use a patch kit if practical to do so.
    - If necessary and practical, pump the fuel from the leaking container into a refuge container

8. Immediately report the spill to the Field Supervisor and Spill Response Team by radio, satellite phone or in person.
9. Resume any effective action to contain, mitigate, or terminate the flow of the spilled material.
10. If in doubt about cleaning procedures or for a very large spill, regulatory agencies can help.

8. Reporting

The person who notices the spill must immediately notify the Field Supervisor. As soon as possible the Field Supervisor will report the spill to

- The 24-Hour Spill Report Line Phone (867) 920-8130, Fax (867) 873-6924
- Fill out the NWT Spill Report Form *NWT1752/0202*
- Notify the Project Manager for spill greater than 1 litre.
- Notify permitting authorities (Nunavut Water Board, Kitikmeot Inuit Association)

9. Resource Inventory

A spill kit will be located at each fuel cache and will contains:
1 – 360 litre/79 gallon polyethylene drum
4 – oil absorbent booms (5” X 10’)
100 – oil absorbent sheets (16.5” X 20” X 3/8”)
1 – drain cover (36” X 36” X 1/16”)
1 – Caution tape (3” X 500’)
1 – 1 lb plugging compound
2 – pair Nitrile gloves
2 – pair Safety goggles
2 – pair Tyvek coveralls
1 – instruction booklet
10 – printed disposable bags (24” X 48”)
1- shovel (in remote spill kit only)
1- plastic tarp
This spill kit capacity is 240 litres.
Shovels, water pump, plastic pails, garbage bags, extra absorbent pad, drip pans are available on the side of the wall at the main office and the kitchen. Fire extinguishers are available in all tents.

11. Hazardous Material Information

This following section lists for each hazardous substance present on the project area, health hazards, spill procedure and disposal procedures. For more detailed information, refer to the MSDS sheets.

DIESEL, JET-B, GASOLINE

DIESEL, JET-B AND GASOLINE ARE HIGHLY FLAMMABLE

- Do not smoke
- Will be easily ignited by heat, sparks or flames
- Gasoline and Jet-B are more volatile than diesel
- Explosion hazard indoors, in confined spaces and outdoors
- Vapours may form explosive mixtures with air
- Vapours may travel to source of ignition and flash back
- Most vapours are heavier than air. They will spread along ground and collect in low or confined areas.
- Keep pump or electrical equipment far away, be very careful with metallic tools that could sparks on rocks, wait for vapours to dissipate

- Inhalation may cause central nervous effects
- Aspiration into lungs may cause pneumonitis which can be fatal
- Eye and skin irritation
- Prolonged exposure has caused cancers in laboratory animals

Spill on Land

- Build a containment berm, downslope, using, peat, moss, soil material, bags filled with sand or rocks and place a plastic tarp at the foot of the berm to pool the spill. Spill can be pumped if in a large amount
- Soak up spilled substance by using absorbent pads
- Excavate the surface soil if necessary. If large excavation is needed, first contact regulatory agencies for approval.
- Remove spill substance splashed on vegetation by applying a thin dusting of Spag-zorb or other ultra-dry absorbent.
- Dispose hydrocarbons, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.
- On marshy zones, don't destroy vegetal cover, limit personnel and equipment. Remove pooled oil with absorbent pads and/or skimmer.

Spill on Water

- Contain spill as close to release point as possible
- On small spill, deploy hydrophobic absorbent pads
- On larger spill and weather conditions permitting, use containment boom to limit fuel dispersion. Use a skimmer, pump or hydrophobic absorbent pads to remove fuel inside the boom.
- Dispose hydrocarbons, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.

Spill on Rivers and Streams

- Prevent entry into water, if possible, by building a berm or trench.
- Intercept moving slicks in quiet areas using (absorbent) booms.
- Do not use absorbent booms/pads in fast currents and turbulent water.

Spill on Ice and Snow

- Build a containment berm of compacted snow around spill.
- If hydrocarbons are pooling on ice, pump large amount or use hydrophobic absorbent pads.
- Don't delay removing the spill as hydrocarbons could seep through cracks into the water.
- Scrape ice, shovel all contaminated snow in plastic buckets with lids or in drums. Dispose absorbent pads and other contaminated equipment in separated containers. Label and seal the containers.

Spill Disposal

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.

PROPANE

EXTREMELY FLAMMABLE

- Do not smoke
- Cylinders may explode when heated
- Cylinders may rocket if ruptured
- Will be easily ignited by heat, sparks or flames
- Explosion hazard indoors, in confined spaces and outdoors
- Vapours may form explosive mixtures with air
- Vapours may travel to source of ignition and flash back
- Vapours from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injuries and/or frostbite
- Keep pump or electrical equipment far away, be very careful with metallic tools that could sparks on rocks, wait for vapours to dissipate

- Liquid may cause frostbites and blisters
- Blurred vision if goes in the eyes
- Narcotic aphyxiant
- Dizziness, disorientation, excitation, headache, vomiting, unconsciousness if inhaled

Spill on Land, Water, Ice and Snow

- Eliminate all source of ignition
- Do not attempt to contain the propane release if not absolutely sure on what to do.
- Do not touch or walk through spilled material
- Stop leak if can be done without risk
- If possible, turn container so that gas escapes rather than liquid.
- Water spray can be used to knock down vapours but don't direct water at spill or source of leak

- Prevent spreading of vapours in confined areas
- If or when possible, confine spill with confinement berm. Throw absorbent pads into spill, retrieved them with gaffs or pitchforks.
- Small fire can be extinguished with dry chemical or CO2.
- Dispose contaminated materials in a labelled drum

Spill Disposal

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods for detective equipment that resulted in the release.

MOTOR OIL, HYDRAULIC OIL, TRANSMISSION FLUID

- Avoid breathing mists, may cause lung irritation
- On skin may cause mild irritation

Spill Action

- Soak up with absorbent material
- Disposed contaminated soil and material in sealed and labelled container
- Small amount can be incinerated
- Large amount to be disposed as hazardous waste.

ANTIFREEZE

- Respiratory irritation with prolonged exposure.
- Kidney, liver and bladder problems reported in animals

Spill on Land

- Soak up by using absorbent pads
- Dispose antifreeze, absorbent pad, contaminated soil and cleaning material in an empty drum, seal it and label it.
- On marshy zones, don't destroy vegetal cover, limit personnel and equipment. If possible remove pooled antifreeze with absorbent pads.

Spill on Rivers and Streams

- Prevent entry into water, if possible, by building a berm or trench.

Spill on Ice and Snow

- Build a containment berm of compacted snow around spill.
- If pooling on ice, pump large amount or use absorbent pads.
- Don't delay removing the spill as it can seep through cracks into the water.
- Scrape ice, shovel all contaminated snow in plastic buckets with lids or in drums.
- Dispose absorbent pads and other contaminated equipment in separated containers. Label and seal the containers.

Spill Disposal

- Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.

BATTERY ACID

- Fire and explosion hazard
- Can be extinguished with dry chemical fire extinguisher.
- Ventilate area
- Remove combustible materials

- Mist inhalation hazard when being charged or spilled
- Acid burns to skin and eyes irritation

Spill Action

- Neutralize with soda or lime
- Dispose battery and neutralized contaminated material in a sealed and labeled container.
- Dispose as an hazardous waste

POLY-DRILL DR-133

- May cause skin and eye irritation

Spill Action

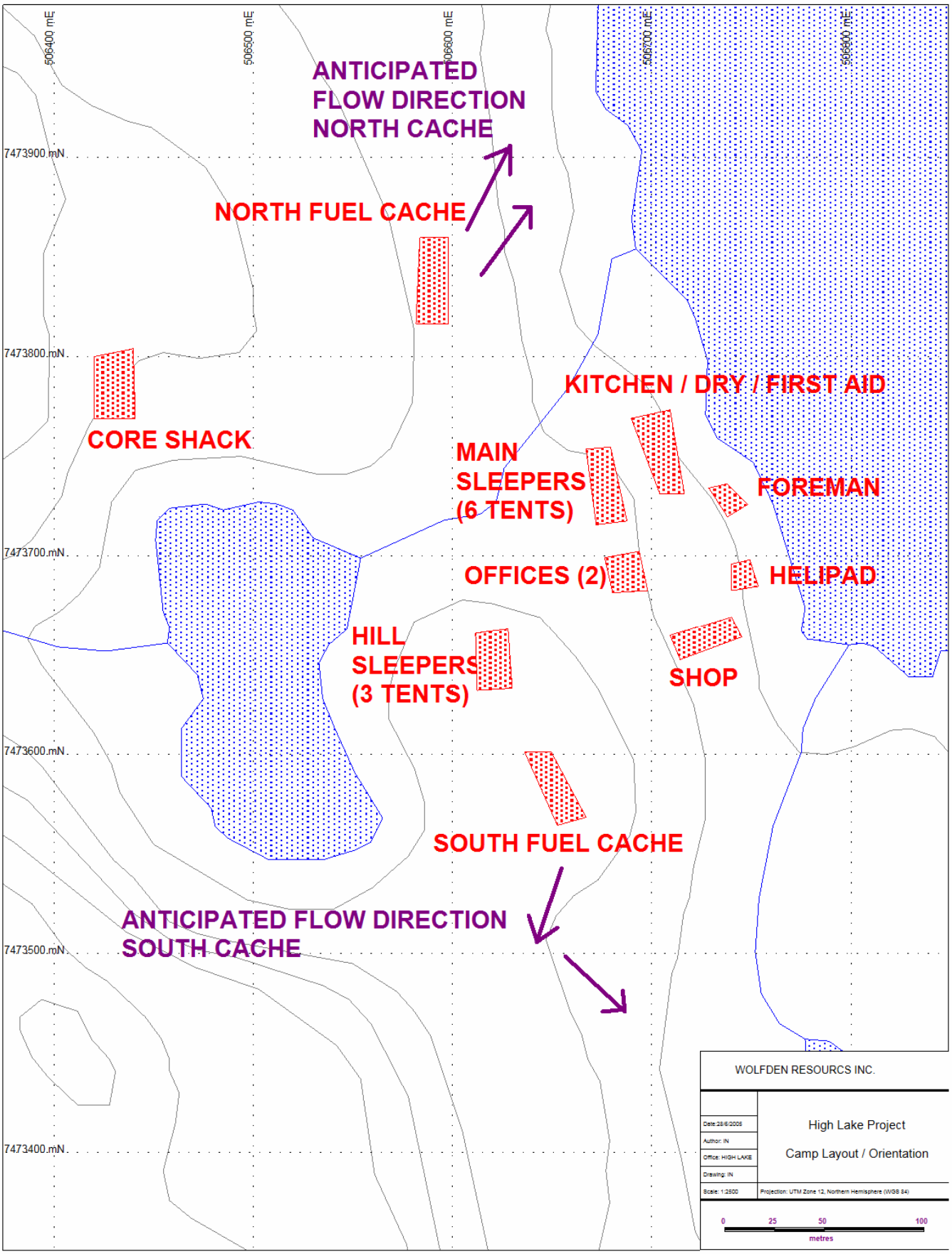
- Soak up with absorbent pad
- Dispose residue, contaminated soil and material in labelled containers. Solidify with sand.
- Small amount can be incinerated, otherwise dispose as hazardous waste.

550-X POLYMER

- Prolonged skin contact may cause irritation
- Possible eye irritation
- Ingestion may cause nausea, vomiting, cramps, diarrhea

Spill Action

- Clean up spill with gloves. Scrape soil or surface and disposed in labelled containers
- Dispose as hazardous waste


506400 mE
506500 mE
506600 mE
506700 mE
506800 mE
7473900 mN
7473800 mN
7473700 mN
7473600 mN
7473500 mN
7473400 mN
ANTICIPATED FLOW DIRECTION NORTH CACHE
NORTH FUEL CACHE
CORE SHACK
KITCHEN / DRY / FIRST AID
MAIN SLEEPERS (6 TENTS)
FOREMAN
OFFICES (2)
HELIPAD
HILL SLEEPERS (3 TENTS)
SHOP
SOUTH FUEL CACHE
ANTICIPATED FLOW DIRECTION SOUTH CACHE
WOLFDEN RESOURCS INC.
Date: 28/6/2005
Author: IN
Office: HIGH LAKE
Drawing: IN
Scale: 1:2500
High Lake Project
Camp Layout / Orientation
Projection: UTM Zone 12, Northern Hemisphere (WGS 84)
0 25 50 100
metres