# SPILL CONTINGENCY PLAN HACKETT RIVER EXPLORATION PROJECT

**SABINA SILVER CORPORATION** 

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# 1.0 INTRODUCTION

This revised Spill Contingency Plan was prepared on site and incorporates current project information to reflect changes in the Hackett River camp. The Hackett River camp is operated by Sabina Silver Corporation. In the event of a spill, camp-specific information must be readily available. The following list provides the required contact information.

# 2.0 CONTACT INFORMATION

1. Site owner in charge of contaminants.

Sabina Silver Corporation 601 Squier St. Thunder Bay, Ontario P7B 4A7

Tel: (807) 345-8278 Fax: (807) 343-0232

2. Name, address and telephone number of the employer.

Sabina Silver Corporation 930 West 1st Street, Suite 202 North Vancouver, British Columbia V7P 3N4

Tel: (604) 998-4175 Fax: (604) 998-1051

3. Name, title and 24 hour contact number for the person or persons responsible for activating the spill plan. These people have the authority to activate the spill plan and to call in additional support.

Peter Manojlovic - Chief Geologist

Hackett River Camp office ph: (604) 677 – 0669 Hackett River Camp alternate ph: (604) 677 – 0670 Hackett River Camp fax: (604) 759 – 6018

Vancouver Office phone (604) 998 – 4183 or 888-648-4218

Thunder Bay Office phone: (807) 345 – 8278

pmanojlovic@sabinasilver.com

If Peter Manojlovic is not available the alternate is:

Scott Burgess - Operations Manager or Julian Karas (alternate)

Hackett River Camp office ph: (604) 677 – 0669

Hackett River Camp alternate ph: (604) 677 – 0670

Hackett River Camp fax: (604) 759 – 6018

Thunder Bay Office phone: (807) 345 – 8278

Cellular phone: (807) 251 – 3335

sburgess@sabinasilver.com

# 3.0 CAMP LOCATION AND DESCRIPTION

4. Location and detailed description of the exploration camp facility.

The Hackett River mineral exploration camp is located approximately 100km south of the community of Bathurst Inlet, Kitikmeot Region at: Latitude: 65° 55'N, Longitude: 108° 22'W and in UTM coordinates (NAD 83 Datum, Zone 12W) the camp is located at: 619684 E, 7312501N on NTS Map Sheet 76 F/16

FIGURE 1: Hackett River Camp, looking SW. (Photo Sept 3, 2009). See separate file

Bulk potential contaminants are stored in two locations in camp: at the north end of camp (Jet B), and at the south end of camp (diesel and gasoline). Small quantities of potential contaminants are also located in many of the other structures in camp – mostly as diesel fuel used for heating. All of the bulk petroleum products are stored in Arctic Grade, secondary containment berms. A total of 10 berms are in use on site, including at the incinerator and at all fuel transfer points. Empty drums, awaiting transport to Yellowknife are also stored in a secondary containment berm.

The following Table lists camp structures, the location and quantity of potential contaminants in or adjacent to the structures together with the location and size of the various Spill Response Kits located in camp.

Function	Tents	Potential	Quantity
		Contaminant	
Kitchen	1 large	Diesel (for stove)	Less than 200 litres
	building	Propane (for range)	Two 45 Kg tanks
Shower / laundry	1 tent	Diesel (for stove)	Less than 200 litres
-		Propane (for water	Two 45 Kg tanks
		heater)	
Drillers dry	1 large tent	Diesel (for stove)	Less than 200 litres
		Propane (for water	Two 45 Kg tanks
		heater)	
Tool shed / work shop	1 shed	Diesel (for stove)	Less than 200 litres
-		Paints, Engine Oil	
		Lubricants, etc	
Pacto shed	2 small	Organic waste	Up to 5 garbage bags full or
	sheds		approximately 25 litres
Drill foreman's office /	1 small tent	Diesel (for stove)	Less than 200 litres
telecommunications			
Project office	1 large tent	Diesel (for stove)	Less than 800 litres (in enviro
(contains a 20 litre spill			tank)
response kit)			
Environmental Office	1 small tent	Diesel (for stove)	Less than 200 litres
Dual Stage, forced air	1 medium,	Diesel (for burners) and	Less than 800 litres (in 2,
incinerator	metal shed	waste oil products	double walled enviro tanks)
		(added to fuel stream for	,
		burners)	
Generator and storage shed	1 large shed	Diesel (for generator)	Less than 600 litres
(contains a 205 litre spill			(in double walled enviro tank)
response kit)			
Backup Generator Shed	1 small	Diesel (for Generator)	Less than 600 litres
•	shed		(in double walled enviro tank)
Generator Shed for the	1 small	Diesel (for Generator)	Less than 600 litres
incinerator	shed		
Recreation / smoking / TV	2 tents	Diesel (for stove)	Less than 200 litres at each tent.
(contains a 20 litre spill			
response kit)			
Core cutting	2 rooms	Propane	45 Kg tank

		Diesel (for stove)	Less than 200 litres
Core logging building	3 larger sheds	Diesel (for stove)	Less than 200 litres at each
Core storage shed (contains a 205 litre spill response kit)	1 large metal- roofed building	Oils and lubricants for generators	Less than 50 litres
Helicopter supply shed	1 small shed	Diesel (for stove) Oil for helicopter	Less than 200 litres Less than 20 litres
Drill Supplies and shop One workshop attached to South wall of main generator building. One storage shed by helishack, at north end of camp	2 sheds	Diesel (for stoves) Motor oil Linseed Soap Matek DD 2000 Poly-Drill 1300	Less than 200 litres Up to 4 cases Up to 4 tubs Up to 15 tubs Up to 15 tubs
First aid / Head cook and helper (contains a 20 litre spill response kit)	2 small sheds	Diesel (for stove) At one, one has electric heat. Oxygen in FA tent	Less than 200 litres  7 x 0.65 Kg O2  1 x 7 Kg O2
Drillers sleeping quarters Camp Managers tents (contains a 20 litre spill response kit)	2 tents 2 small sheds	Diesel (for stoves) Diesel (for stove)	Less than 200 litres at each tent.  Less than 200 litres at each tent
Helicopter pilot & engineer	1 small tent	Diesel (for stove)	Less than 200 litres
Geology crew	2 tents	Diesel (for stove)	Less than 200 litres
Support crew Environmental crew	5 tents 4 tents	Diesel (for stove)  Diesel (for stove)	Less than 200 litres Less than 200 litres

**Table 1:** Camp infrastructure, with location and quantity of possible contaminants.

In the area south of the metal clad building are located three drummed fuel caches, and a bulk drilling supplies storage area. An additional 2 drummed fuel caches are located between the helicopter landing pad and the drill supplies shed close to the north end of the camp. The fuel caches consist of up to:

Potential	Container Size	Maximum	Comments
Contaminant		Quantity	
Diesel	205 litre drums	1110	Stored in 3 caches, each within an arctic-grade impermeable secondary containment berm
Jet-B	205 litre drums	310	Stored in 2 caches, within an arctic-grade impermeable secondary containment berm
Gasoline	205 litre drums	25	Stored separately in an upright position separate from the other fuel caches within an arctic grade mini-berm.
Propane	45 Kg cylinders	100	Stored on a wooden deck and secured in an upright position between the dock and the generator shed.

**Table 2:** Fuel caches and contents

Within close proximity to the 2 helicopter landing pads are located drums of Jet-B fuel. The quantity of fuel stored at each helicopter landing pad will vary according to use but would ordinarily be 5 drums or less, and each fuel transfer station is within an arctic grade mini-berm.

A second helicopter is brought to site as needed to support additional field exploration and environmental monitoring programs, and has its own landing pad, and fuel transfer station.

Within the drilling supplies storage area, palletized calcium chloride salt is located. A maximum of 35 pallets of salt would be located on site. Each pallet contains 56 plastic bags of salt weighing 22.68 kg (50 lb) each. The maximum amount of salt stored on the site would be 44.45 tonnes. The salt is shipped in bulk, and comes in shrunk wrapped in cardboard boxes on pallets. Loose bags are transferred to megabags. The Megabags are stored up off the ground on pallets to minimize the chance of water dissolving the stored salt.

At each drill location, fuel and supplies will be delivered daily and waste material returned to camp. Two to three, double-walled, fuel tanks will be at the drill rig during its operation. One tank would have a pump and be used to supply the drill rig and a second tank will be available as a back-up supply. Each morning a third full tank will be delivered to the location to replace the tank (now empty) that has been used to resupply the rig. Spill response kits are also located at each of the drills in use.

# 5. A description of the type and maximum amount of potential contaminants that may be on site is listed below:

<b>Brand Name</b>	Constituent	Maximum Quantity on Site
Matex DD 2000	Liquid Polymer	15 tubs (5 gallon size)
Poly-Drill 1300	Liquid Anionic Polymer	15 tubs (5 gallon size)
PureVis	Liquid Polymer	25 tubs (5 gallon size)
Westcoast Drilling	Linseed Soap	5 tubs (5 gallon size)
Supplies		
Peladow	Calcium Chloride salt	44.45 tonnes

**Table 3:** Drill Additives

Type	Maximum Number	Capacity of containers
	of Containers	
Diesel	2000	205 litre
Gasoline (lead free)	5	205 litre
Aviation Fuel (Jet B)	1000	205 litre
AvGas	3	205 litre
Propane	75	45 Kg

Table 4: Fuels

Product	Maximum Quantities on Site
Drill Rod Heavy Grease	3 tubs, each tub containing 5 gallons
Duron Multigrade Engine Oil SAE	3 cases, each case containing 12 litres
Viscosity Grades 10W-30, 15W-40	

**Table 5:** Lubricants

Product	Maximum Quantities on Site
Oxygen	1 cylinder containing 7 kg of oxygen
Propane	1 45 Kg cylinder.

**Table 6:** Welding Gases, located outside Major repair shed, stored according to WCB specifications in an open, roofed storage area.

Product	Maximum Quantities on Site	
Oxygen	7 cylinders containing 0.65 kg of oxygen each	
Oxygen	1 cylinder containing 7 kg of oxygen	

**Table 7:** Medical Gases, stored in the first aid tent. Cylinders are stored upright and chained to the walls.

Other chemicals that would be used in small quantities during the drill program would include kitchen soaps and cleaning agents, bleach, soaps and shampoo, waterless hand cleaners, hand sanitizer, mosquito repellant and other similar household items. Kitchen cleaners would be kept in the kitchen tent; bleach, soaps and shampoo would be stored in the shower / laundry tent and driller's dry. Mosquito repellant would be stored with office field supplies in the office tent.

MSDS information for the above listed potential contaminants and products are contained in Appendix 2. In addition, Major Drilling, Northern Air Support (NAS), and EcoWaste Solutions have provided their own MSDS sheets for anything they may use on site. 1984 Enterprises, Inc., also provides MSDS sheets for camp. MSDS binders are stored in the Heli shack (NAS), Drill foreman's office (Major Drilling), kitchen (1984, Sabina-generated sheets) and main office (1984, Sabina copies).

# 3.0 PREVENTION AND MONITORING

It is much more difficult work to clean up a spill than to prevent it from occurring. Prevention is better than containment and containment is better than no containment. Clean-up from a secondary containment berm or drip pan is easier than from the natural environment. Effective spill prevention requires education, regular practical training sessions, regular inspections and awareness.

## 3.1 Leak Prevention

Leaks most often occur during handling of the fuel but may also develop slowly over time. All fuel drums on site shall be inspected regularly for leaks.

Prevention includes training of all staff at the start of employment (or arrival to site) to ensure awareness of proper techniques and methods are used in the handling and transfer of materials. Adequate worker training is required to avoid puncturing the fuel drums during handling. Workers will also be trained in refueling techniques to prevent the spillage of fuel during transfer. This training will include normal standard operating conditions and emergency situations. Copies of the action plan in case of spill or leaks are posted in various locations throughout camp.

In addition to training, prevention of spills is also managed through the proper storage and handling of fuel, chemicals and waste materials. An impermeable geomembrane secondary containment berm is used to store drums at fuel caches. Fuel drum storage locations will be inspected for, and cleared of, puncture or tipping hazards. Propane, oxygen and acetylene tanks will be stored securely upright to prevent tipping and possible breakage of gas fittings.

Detection of leaks will be using two methods - a fuel inventory reconciliation and inspection. A weekly reconciliation of storage volumes will be completed and a spill response will be initiated in the event: of any unexplained loss over five or more weeks.

Weekly inspections will be conducted to ensure either there has not been a leak or that the conditions of the area could result in a leak. These inspections will include the fuel drums and storage containers, secondary containment sumps and associated spill containment devices, any pumps and product-handling equipment, and an overfill protection devices. These inspections will be recorded to include who completed the inspections, areas included in the visual inspection and any deficiencies noted.

On-site management employees will review these inspections and ensure any changes needed are completed. These details will be added as a followup to the weekly inspection.

# 3.2 Fire Prevention

The most serious spill incident would involve fire and a hydrocarbon-based fuel source. In order to minimize the risk of fire, **No Smoking** and **Flammable** signs will be posted near to any fuel cache along with a dry chemical fire extinguisher. Fire extinguishers will also be located at each site where fuel is used. Workers will be trained in the use of the fire extinguisher and be instructed of the risk caused by electrical and open flame fire hazards near fuel. The fuel caches will be located well away from camp buildings and will be kept clean and free of litter to reduce risk.

# 4.0 SPILL REPORTING

6. Steps to report, contain, clean-up and dispose of a spill.

# 4.1 Reporting a Spill

First call the Nunavut/NWT 24 hour spill line at (867) 920 – 8130, or Fax: (867) 873-6924. The spill line will then contact the lead regulatory agency. Collect calls are accepted. Also, call the DIAND Water Resources Inspector at (867) 975 – 4295.

Please ensure that as much information as possible is included in the notification however do **not** jeopardize personal safety to obtain this information. Do not delay reporting a spill because you do not have all the requested information.

Information that is most useful includes:

- Spill location with map coordinates (if known) and direction (if moving).
- Date and time or estimated time of spill and the time of observation of the spill.
- Who is the party responsible for spill (who is in charge or has control of the contaminants at the time of the spill)?
- What product or products spilled and what are the estimated spilled quantities (in metric if possible)?

- What caused the spill?
- Has spill been stopped?
- If spill is continuing provide an estimate of the rate of spillage.
- Is further spillage possible?
- What is the extent of contaminated area (in square meters if possible)?
- What factors are affecting the spill, weather, snow cover, terrain, etc.)?
- What containment measures are in place or are being used (natural depression, dykes, booms, absorbent pads, etc.)?
- What actions, if any, are being taken to contain, recover, clean-up and dispose of the spilled product and contaminated materials?
- Do you require assistance to contain, recover, clean-up and dispose of the spilled material?
- What are the possible hazards to persons, property or environment (e.g. fire, drinking water, fish or wildlife habitat)?
- Any other relevant information.
- Who is making this report, your job title, employer and address?
- What is your contact phone number?

If you are not sure if the spilled product is classified as a contaminant or if you are not sure if the volume of the spill is a reportable quantity, it is recommended to report the incident.

It's a regulatory requirement that all spills and leaks of gasoline or diesel fuel must be reported to the Environmental Protection Branch. Any leak or spill of any amount into a watercourse, water body or groundwater must be reported.

Any spill, or incident that may likely result in a spill, of an amount equal to or greater than the amount listed in the table below shall be promptly reported.

Item	TDGA Class	Description of Contaminant	Amount Spilled
No.			
1.	1	Explosives	Any amount
2.	2.1	Compressed gas (flammable)	Any amount of gas from
			containers with a capacity
			greater than 100 litres.
3.	2.2	Compressed gas (non-corrosive, non	Any amount of gas from
		flammable)	containers with a capacity
			greater than 100 litres
4.	2.3	Compressed gas (toxic)	Any amount
5.	2.4	Compressed gas (corrosive)	Any amount
6.	3.1, 3.2, 3.3	Flamable liquid	100 litres
7.	4.1	Flamable solid	25 kg
8.	4.2	Spontaneously combustible solids	25 kg
9.	4.3	Water reactant solids	25 kg
10.	5.1	Oxidizing substances	50 litres or 50 kg
11.	5.2	Organic Peroxides	1 litre or 1 kg
12.	6.1	Poisonous substances	5 litres or 5 kg

13.	6.2	Infectious substances	Any amount	
14.	7	Radioactive	Any amount	
15.	8	Corrosive substances	5 litres or 5 kg	
16.	9.1 (in part)	Miscellaneous products or	50 litres or 50 kg	
		substances, excluding PCB mixtures		
17.	9.2	Environmentally hazardous	1 litre or 1 kg	
18.	9.3	Dangerous wastes	5 litres or 5 kg	
19.	9.1 (in part)	PCB mixtures of 5 or more parts per	0.5 litres or 0.5 kg	
		million		
20.	None	Other contaminants	100 litres or 100 kg	

**Table 8:** Spill reporting thresholds for potential contaminants

After the spill has been called in complete a written Spill Report Form listed in Appendix 1.

# 4.2 Spill Clean up

Hydrocarbons are the most likely contaminant to require a spill response. Diesel is used in the greatest number of locations so is the most likely to require a spill response. The physical setting of the spill will determine the methods used to contain and clean up the spill. The physical settings likely to be encountered during a spill response would include: land, muskeg, ice & snow, lakes & ponds and flowing streams and rivers.

### Land

- Flowing spills should be stopped using earth, snow, plastic or other barrier means. Prevent entry to waterways.
- Spills should be removed using absorbent pads and if feasible, the contaminated soil should be dug up and placed in a plastic or metal bucket with a lid for transportation to a remediation facility or to an approved disposal site.
- Do not wash into drainages with water.
- On well vegetated tundra remove as much as possible using absorbent pads followed by use of peat moss to absorb the diesel and stabilize it for natural degradation processes to act on it. Leave the peat moss in place to degrade so as not to inflict additional damage to the vegetation.

### Muskeg

- Muskeg vegetation is sensitive to disturbance. Carefully place absorbent matting to remove as much diesel as possible.
- Flood the area with water to float the diesel and make it more amenable to collection using absorbent matting. Wash and aim the floating diesel with a low pressure hose to a suitable collection area.
- Keep equipment off the muskeg as it will probably get stuck and cause more damage to vegetation.

## Ice and Snow

- Block any spill with snow, plastic or other barrier material so it doesn't enter a waterway.
- Shovel the contaminated snow and ice into a mega-bag or suitable cargo sled and transport it to one of the fuel containment berms where it can melt. Once melted, the released diesel can be removed from the water surface contained within the berm by using absorbent matting.
- Propane powered flame torches should be used to melt and combust diesel from candled ice surfaces that are commonly developed in the spring.

# **Standing Water**

- Use spill containment booms to keep the spill from spreading.
- Deploy the containment booms to keep the clean-up area to as small as size as is effective.
- Use absorbent pads to pick-up the spilled diesel.
- Use caution when working from shore as any wetlands are susceptible to damage from clean-up activities. See section on muskeg for work in these areas.

# Flowing Water

- Where possible prevent entry to streams or rivers by digging a ditch or berm.
- Deploy absorbent booms (or "tiger tails") across the direction of flow to absorb the diesel. Absorbent pad may also be used where the current is slow.
- Deploy the absorbent booms where flow is slower. Deployment of absorbent booms across turbulent flow is only partially effective in absorbing diesel.
- Multiple booms may be needed if the current is strong.

# 4.3 Leaks or Spills

Action Plan in the event of a spill or leak:

- Evaluate the scene and ensure personal safety and the safety of any others.
- Find and locate the source of the spill and either stop or contain the spill if possible. Contain the spill by damming with earth or other suitable material.
- Remove all sources of ignition. Be prepared to use a fire extinguisher. Remember gas vapors flow down hill and are extremely explosive.
- Work from the upwind side to avoid inhaling fuel vapors and becoming engulfed in flames if a fire starts.
- Notify the Camp Supervisor or Project Manager who will activate the Spill Contingency Plan and call the 24 hour Spill Report Line at (867) 920 8130, Fax: (867) 873-6924.
   The Camp Supervisor will also call the DIAND Water Resources Inspector at (867) 975 4295.
- Don't wash spilled fuel or contaminant into potentially higher risk areas. Protect water sources and septic systems.
- Clean up and dispose of all fuel or contaminant by shoveling the contaminated earth or absorbent material into metal containers. Dispose of contaminated cleanup materials in an approved manner.

- Clean up the spill site using site appropriate absorbents, tools and procedures. Clean up and dispose of all fuel contaminated soil or absorbent material by shoveling into sealed containers.
- Dispose of contaminated cleanup materials in an approved manner.
- Record the spill on the Spill Report form and conduct follow-up monitoring if required.
- Ensure that all ignitable vapors are dispersed before resuming normal activities.
- Review the incident with others in camp and share ideas on to prevent a similar type of spill from occurring again.

## 4. 4 Leak Containment

Secondary leak containment requires the planned use of absorbent pads, drip buckets, drip pans, or impermeable geomembrane secondary containment berms to catch any slow or unexpected leaks. The use of these collection methods requires regular monitoring to ensure that the capacity of the leak collection device is not exceeded. In the event that the previously listed containment devices are exceeded, use a shovel to create an earth berm or use any other suitable absorbent media to slow or halt the spread of a spill.

Locations containing fuel drums (near generator, fuel supplied for tents, main fuel cache) will be equipped or fitted with absorbent pads, pans, buckets or mini-berms to prevent the escape of fuel to the environment.

Traditional wooden barrel stands (with absorbant pads and buckets) are being replaced by plastic barrel stands with secondary containment features built in. A regular inspection program shall be established to monitor the condition of the leak containment devices so they do not overflow. Drums in the fuel cache will be inspected daily. In the event a drum shows leakage it will be removed from the fuel cache and the fuel will be transferred to a suitable empty drum.

Double walled fuel tanks were installed at the following locations in 2008: Main generator (425 litre), backup generator (425 litre), incinerator generator (425 litre). Approved double wall tanks will be used to minimize the number of times fueling is required, and to further reduce the risk of a spill from a warn bung or hose connection. Tanks not installed at the office or kitchen due to problems with gravity feed systems and the fact that double wall tanks have electric pumps.

# 4.5 Fire

Action plan in the event of a petroleum fire:

- Raise the alarm! Warn others and call for assistance.
- Personal safety comes first, make sure you and others nearby are safe. Evacuate if necessary and account for everyone. The main muster station is the kitchen and the secondary muster station is the main office.
- If necessary, provide first aid and locate any missing workers. Remove any injured people to a safe site, generally upwind from the fire.

- If a person, who is splashed with fuel, catches fire, wrap him in a blanket or roll him on the ground to remove oxygen and extinguish the fire. If this doesn't work, use an ABC, dry chemical, fire extinguisher to put out the fire
- If there is a danger of explosion get away!
- If possible, stop the flow of fuel feeding the fire.
- Remove on-going sources of ignition i.e., shut off the electricity.
- Attempt to extinguish flames using approved equipment. Remember, diesel fuel and gasoline float. Don't wash flames to an area of higher danger.
- Remember the order of priority, human safety comes first, then property. Don't risk your life for possessions.
- Notify the Camp Manager or Operations Manager who will implement the Action Plan for Leaks or Spills once the fire is out and who will also notify authorities, if required.
- Conduct follow-up monitoring, if required.
- Clean-up the site when allowed to do so.
- Review the incident with others in camp and discuss ways to prevent similar fires in the future.

# 4. 6 Disposal

Appropriate disposal for any recovered product and contaminated soil, water or absorbent clean up materials is regulated and must be authorized by the agency investigating the incident. Obtain approval from all appropriate government agencies before disposal. A hazardous waste generator number has been acquired and used by the expeditor when disposing of camp waste.

Fuel contaminated soil can be remediated on site through incineration or alternatively, the contaminated soil can be flown out to Yellowknife for disposal in an approved dump site.

Any non-reusable recovered product, contaminated soil and clean up materials, which cannot be incinerated, will be stored in containers on site prior to disposal. First choice would be plastic tub containers with a lid. If additional capacity is required contaminated material would be stored in open headed drums and would be later covered to keep out any rain or snow.

Additional advice on how to treat or dispose of contaminated materials or soil as well as environmental site assessment and remediation may be obtained through:

Rescan Environmental Services

Sixth Floor – 1111 West Hastings St.

Vancouver, British Columbia V6E-2J3

Tel: (604) 689 – 9460 Fax: (604) 687 – 4277

Unused quantities of contaminants at the end of the exploration program will be returned for recycling.

Any waste material will be disposed of through: KBL Environmental PO Box 1108
Yellowknife, Nt X1A 2N8

7. A site map of sufficiently large scale to show the locations of buildings, contaminants storage areas, sensitive areas such as water bodies, probable pathways of contaminant flow and general topography.

The following map shows the physical geography of the Hackett River Camp and complements the camp airphoto below and Figure 1.

## FIGURE 2:

Physical geography of the Hackett River Camp. (see separate file)

**FIGURE 3:** Hackett River Camp on September 3, 2009. Picture taken from the south of camp looking to the northwest. (see separate file)

8. A description of the spill response training provided to employees who will respond to a spill.

All employees in camp shall be provided W.H.M.I.S. training session at the start of the exploration program, and refresher training will be provided as necessary.

All employees in camp will be provided Standard Level Enhanced First Aid training at the start of the exploration program if they lack a valid first aid certificate. Updated training and refresher courses will be supplied to ensure all employees have a current emergency First Aid certificate.

On site orientation will be provided to all employees so as to ensure that all employees are aware of:

- The location of MSDS sheets, Spill Report Forms, and Spill Record Book.
- The location of the various fuel caches.
- The location of the various Spill Response Kits.
- The location of the Muster Station, Fire Station, fire extinguishers and water pump and fire fighting equipment.
- The location of any valves that may be used to stop the flow of a fuel.
- The location of the Spill Action Plan and the Fire Action Plan.

On site training will be provided to all employees as to the use of:

- Spill kit contents.
- Fire extinguishers and water pump.

Training will be provided to all employees so that they are able to:

- Turn off the valve to stop the flow of fuel, at the ignition point and at the source.
- Activate the Spill Action Plan and the Fire Action Plan.
- Identify, evaluate and mitigate the hazards posed by any spilled product by using appropriate PPE (personal protective equipment).
- Identify and avoid the conditions which may lead to a spill.
- Develop an understanding of the potential environmental impacts of a spill.
- Develop and understanding of the financial costs of a spill.

• Recognize the hazards associated with sources of ignition (smoking, electrical sparks) near a fuel source

For employees involved in fuel handling, additional training would be provided regarding appropriate refueling techniques and drum handling procedures.

Simulated fuel spill exercises will be conducted approximately every 6 weeks to ensure familiarity with the Spill Action Plan and ensure that the plan is relevant and useful throughout the exploration season. The spill response plan is brought to the weekly safety meetings every 6 weeks and its location is mentioned every time new personnel come to site.

9. An inventory of and the location of response and clean-up equipment available to implement the spill contingency plan.

A total of five **20 litre Spill Response Kits** and four **205 litre Spill Response Kits** will be available to implement the spill contingency plan. The location of the various spill response kits is indicated in the table of camp structures listed above under question # 4.

**Spill Response Kit Contents** 

Spin Response Kit Contents			
20 litre All Purpose Spill Response Kit	205 litre H.O.W. Spill Response Kit		
1 - 20 litre poly containment pail	150 - 17" X 19" oil absorbent pads		
12 - 16" X 20" oil absorbent pads	8 - 3" X 48" oil absorbent socks		
2 - 3" X 48" oil absorbent socks	2 - 5" X 120" oil absorbent booms		
1 - heavy duty disposal bag (8 mil)	4 - temporary disposal bags 42x48-XS		
1 - pair Chemi-Pro gloves	1 - pair nitrile gauntlet gloves		
3 - lbs of all purpose absorbent	1 - pair disposable coverall		
	1 - pair clear safety goggles		
	1 - 4 oz temporary Gapseal stick		
	1 - 205 litre containment drum (metal/poly)		
	with quick release lever lock system		

 Table 9: Spill Response Kit contents

Miscellaneous equipment in camp would be made available for spill response and clean up. This equipment would include spades, pick axes and snow shovels, a gas powered water pump, hand crank fuel pump, hand and power tools and any suitable absorbent or containment materials found in the supplies tent or core shack.

The placement and number of spill kits will be re-evaluated during each 6 week spill response simulation exercise.

# 10. Date of Spill Response Plan was updated.

Sixth revision: February 18, 2009 Fifth revision: April 5, 2008

Fourth revision: November 7, 2006 Third revision: June 30, 2006 Second revision: March 20, 2006 First revision: July 29, 2004 Initial submission: March 5, 2004





NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca

			v				REPORT LINE USE ONLY	
Α	REPORT DATE: MONTH – DAY – YEAR			REPORT TIME		☐ ORIGINAL SPILL REPORT, OR	REPORT NUMBER	
В	OCCURRENCE DATE: MONTH - DAY - YEAR			OCCURR	ENCE TIME	UPDATE #TO THE ORIGINAL SPILL REPORT		
С	LAND USE PERMIT NUMBER (IF APPLICABLE)				WATER LICENCE NUMBER (IF APPLICABLE)			
D GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION REGION							I OR OCEAN	
	LATITUDE			LONGITUDE				
E	DEGREES	SECONDS	SECONDS DEGREES		MINUTES S	ECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION					
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION					
	PRODUCT SPILLED	QUANTITY IN L	ITRES, KIL	OGRAMS OR CUBIC METR	U.N. NUMBER			
H	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN L	ITRES, KIL	OGRAMS OR CUBIC METE	RES U.N. NUMBER		
ī	SPILL SOURCE		SPILL CAUSE	SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL C	DESCRIBE AN	Y ASSISTAI	NCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT			
$\vdash$	ADDITIONAL INFORMATION, C	OMMENTS, ACTIONS PRO	POSED OR TAKEN	TO CONTAI	IN, RECOVER OR DISPOSE	OF SPILLED PRODUCT AND CONT	AMINATED MATERIALS	
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L	REPORTED TO SPILL LINE BY	POSITION		EMPLOY	/ER	LOCATION CALLING FROM	TELEPHONE	
	ANY ALTERNATE CONTACT	POSITION		EMPLOY	/ER	ALTERNATE CONTACT	ALTERNATE TELEPHONE	
M		* "				LOCATION		
	L		REPORT LI	NE USE O	NLY	* .		
	N RECEIVED AT SPILL LINE BY POSITION STATION OPERATOR			EMPLOY	/ER	LOCATION CALLED	REPORT LINE NUMBER	
IN						YELLOWKNIFE, NT	(867) 920-8130	
LEAD AGENCY DEC DCCG DGNWT DGN DILA DINAC DNEB DTC SIGNIFICANCE DMINOR DMAJOR DUNKNOWN FILE STATUS DOPEN DCL								
AGENCY CONTACT NAME				CON	CONTACT TIME REMARKS			
LEAD AGENCY								
FIRST SUPPORT AGENCY								
SE	COND SUPPORT AGENCY		*			* ,		
ТН	IRD SUPPORT AGENCY							

PAGE 1 OF \_

# Appendix 2 - MSDS sheets MSDS information is available for the following material on the included computer disk.

