

**MECHANICS OFFICE**



**EMT/FIRST AID  
PARAMEDICS ROOM**



**SLEEPING  
QUARTER**

Schlumberger  
Geco-Prakla

**SPIKE ROOM**

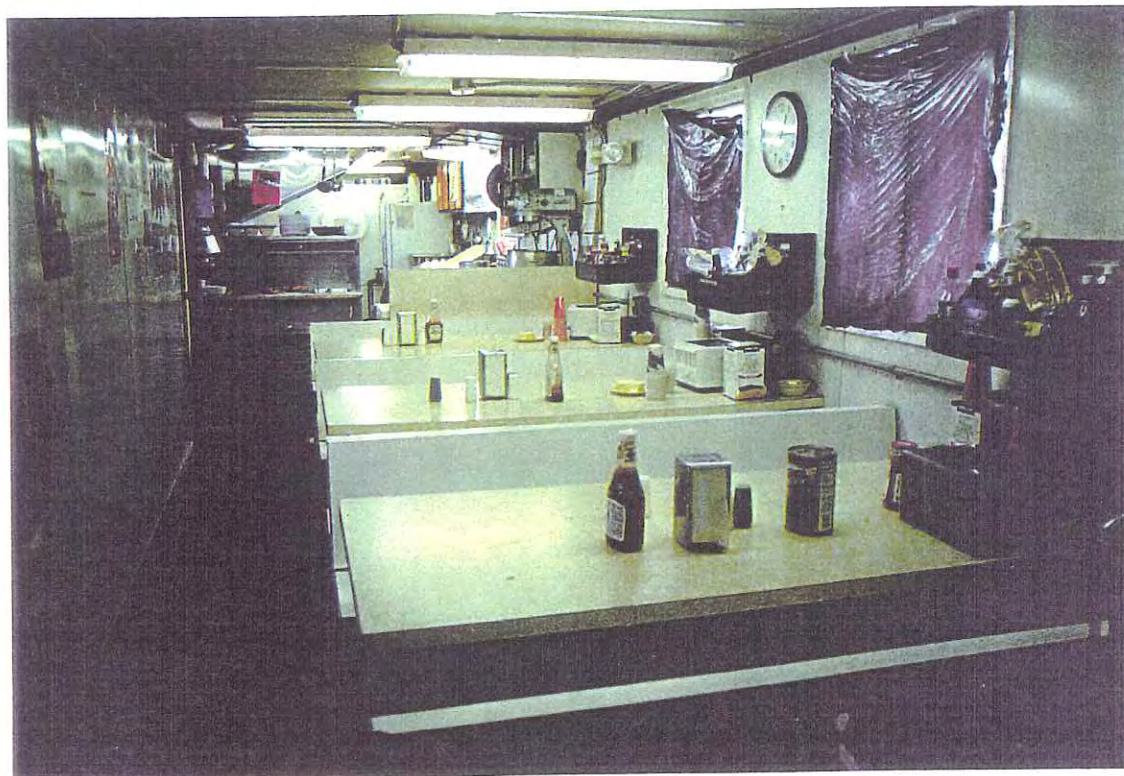


**SALAD BAR**

Schlumberger

Geco-Prakla

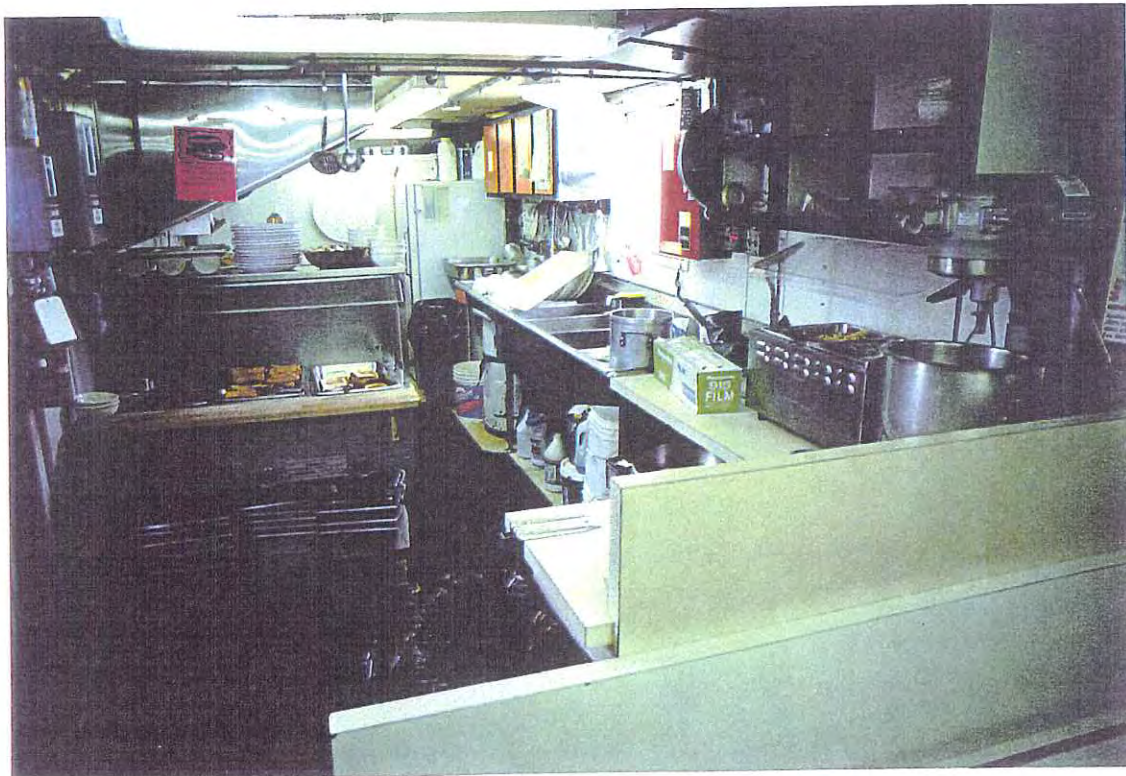
# BREAKFAST



# DINNER

Schlumberger  
Geco-Prakla

KITCHEN



KITCHEN

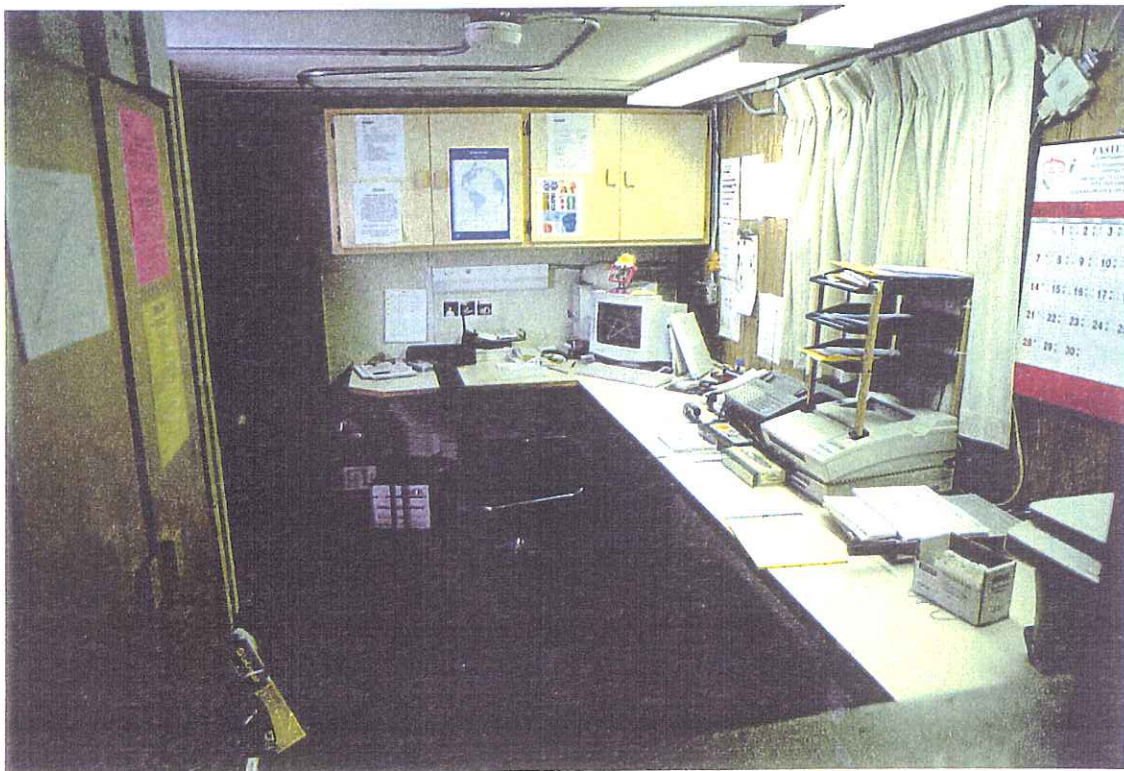
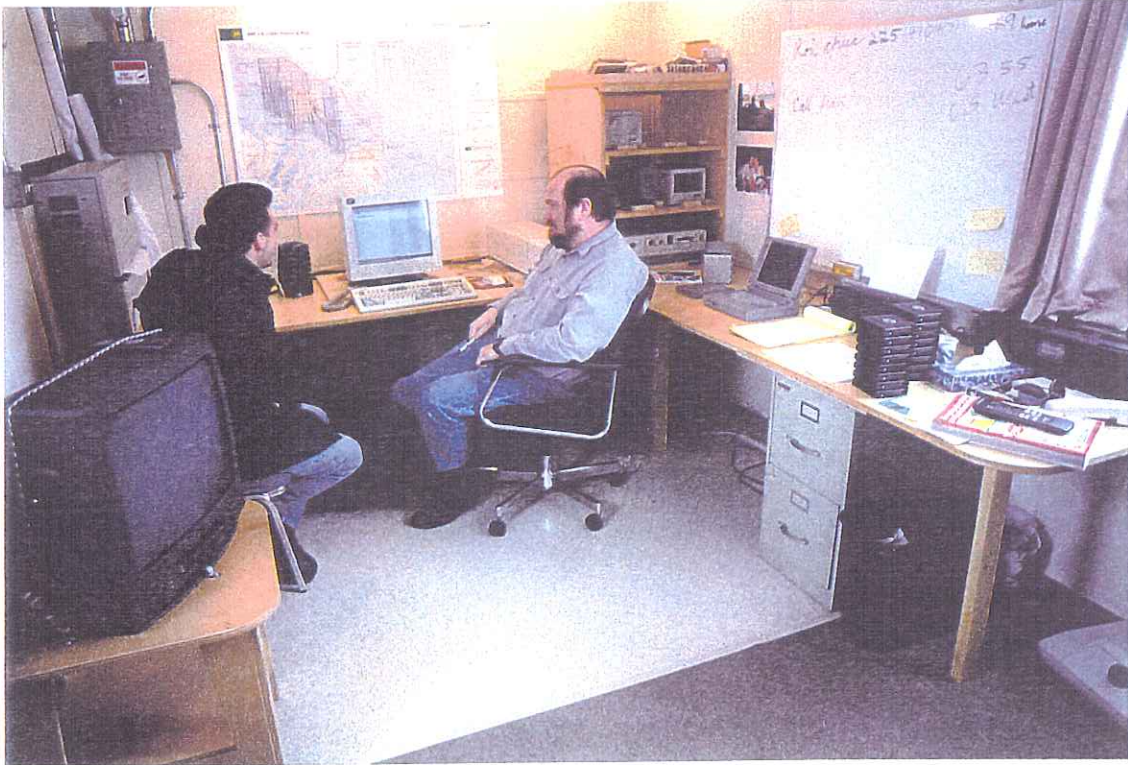
**Schlumberger**  
Geco-Prakla

**RECREATION TRAILOR**



**RECREATION/CONFERENCE TRAILOR**

**FIELD PROCESSING**



**ADMINISTRATOR OFFICE**



**Schlumberger**  
Geco-Prakla

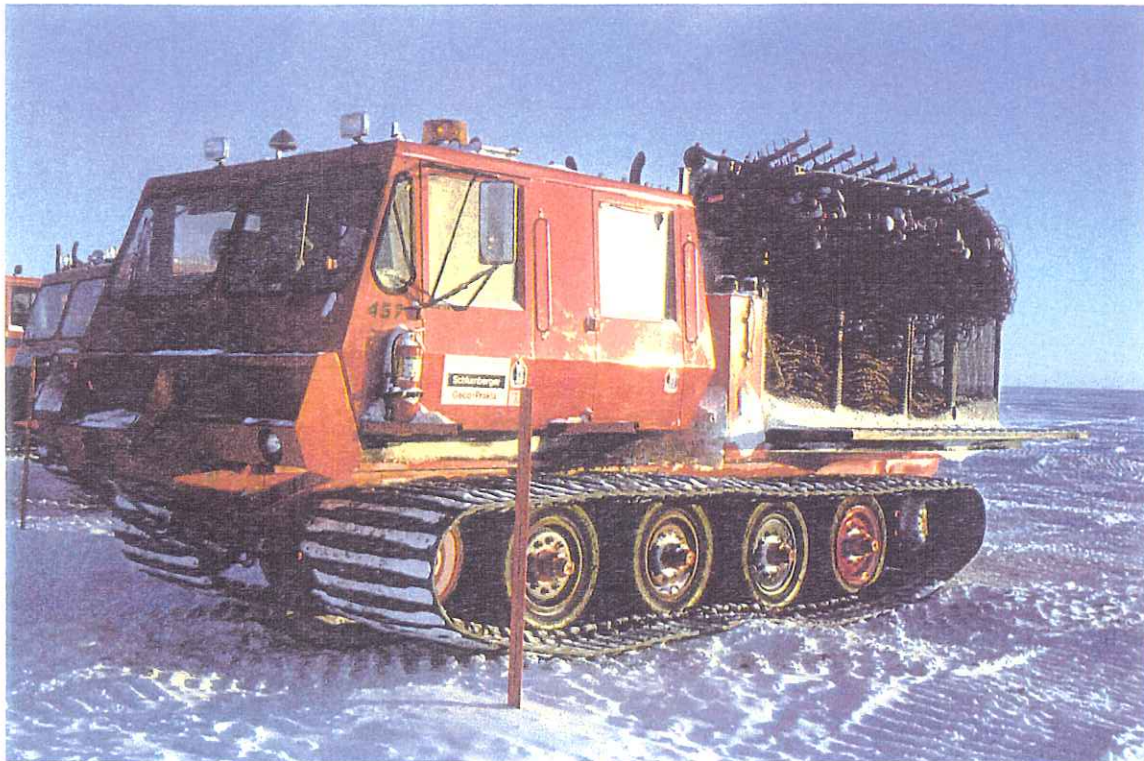
## **TROUBLESHOOTER HAAGLUND**



## **BOMBARDIER SNOWBUS**

Schlumberger  
Geco-Prakla

## CABLE TRUCK



## CABLE TRUCK

**APPENDIX B**

**EMERGENCY RESPONSE PLAN AND  
FUEL AND OIL SPILL CONTINGENCY PLAN**

**EMERGENCY CONTACTS**

<b>CONTACT</b>	<b>LOCATION</b>	<b>PHONE NUMBER</b>
RCMP	Inuvik	(867) 777-2935
AMBULANCE	Inuvik	(867) 777-4444
HOSPITAL	Inuvik	(867) 777-2955
FOREST FIRE	Inuvik	(867) 777-3333 or (24 hr) 1-800-661-0800
NWT EMERGENCY SPILL RESPONSE LINE	Yellowknife	(867) 920-8130
NATIONAL ENERGY BOARD	Calgary	(403) 299-2792
CANADIAN HELICOPTERS LTD.	Inuvik	(867) 777-2424
CHEVRON SAFETY OFFICER	Bob Tansowny Calgary	(403) 234-5813 Home: (403) 948-9373

## Emergency Response Plan

Effective Date : 10/13/00

Work Instruction Title	Work Instruction Number	Custodian (position)
Emergency Response Plan	LNAM/W001	NAM Land QHSE Supervisor

### Latest Revision History

Rev No	Effective Date	Description	Prepared by (name)	Reviewed by (name)
00	10/13/00	First Release	P. Thompson M. Vermaas, G. Devaux	A. Chatenay
Latest revision approved by (name): Mark O'Byrne			Signed:	

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## 1. Purpose

To provide clearly defined instructions and a flowchart to be followed in case an emergency situation arises in the field. The contingencies planned for in this work instruction are INJURY, ACCIDENT and SPILL.

## 2. Actions

**2.1.1** It is the responsibility of the Party Chief or Assistant Party Chief to ensure that an accurate and updated Emergency Response Plan is prepared prior to field operations on the project commencing. The plan will generally be researched by the advance crew or recording crew members sent ahead to a given program area.

**2.1.2** All phone numbers listed must be verified by calling the number to ensure the phone number is still valid and no typographical errors have been made on the emergency response plan itself.

**2.1.3** A sketch map of the prospect area, principal roads and location of nearest medical facilities with directions from the field to the medical facilities must be drawn and attached to all copies of the plans issued.

## Injury Accident Response Plan –

### In All Cases

- Immediately notify MEDIC on Working Channel
- The response co-ordinator will be the senior crew member on site. The response co-ordinator will be responsible for the execution of this plan.
- If the Helicopter External Transport system (HETS) is required a trained HETS medic will be incident commander.
- In all cases the accident scene should be evaluated to ensure all hazards have been removed or controlled prior to any rescue attempt. **DO NOT BECOME A VICTIM YOURSELF.**

### First Aid Case

- Senior staff member sends trained responder to scene.  
Responder administers first aid as necessary.
- Field crew notifies crew office of injury.
- Injured person returns to work or to crew office for further assessment or treatment.

### Severe or Life Threatening Injuries

- Crew immediately stops production and calls for radio silence.
- Field crew immediately notifies crew office. Office to maintain an accurate and timed radio communication and telephone log.
- Senior staff member sends trained responder to scene.  
Responder administers first aid as necessary and where appropriate. Responder will pass along information via recorder to crew office as to condition of injured. Determine if injuries merit evacuation by ambulance or helicopter.
- Describe injuries and difficulty of evacuation to HETS trained responder to determine if injuries & location merit evacuation by ambulance or helicopter.
- Crew office notifies Emergency Medical Services or helicopter medivac company, giving location of accident, nature of accident and injuries, number of people involved. Escort from town to scene may be required to avoid ambulance getting lost. GPS co-ordinates for staging or accident location should be available to give to helicopter to find scene quickly.
- If the patient(s) can be moved, responder can move them to a convenient location to speed up access by the EMS or helicopter. USE EXTREME CAUTION. IF IN DOUBT, **DO NOT MOVE THEM.**

- Co-ordinates
- Hospital:
- Hospital Telephone:
- Ambulance Telephone:

## Spill Response Plan –

### In All Cases

- Immediately notify **SENIOR SITE SUPERVISOR OF WORKING CHANNEL**
- The response co-ordinator will be the senior crew member on site. The response co-ordinator will be responsible for the execution of this plan.
- In all cases, the incident scene should be evaluated to ensure all hazards have been removed or controlled prior to any rescue or cleanup attempt.

### Drill or Vehicle Leak

- Operator immediately shuts down engine and if possible closes valves to stop flow of fluid.
- Notify recorder, crew mechanic or drill push.
- Contain spill using materials found in spill response kits or by constructing dam using shovel or available tools and materials. Use absorbent to attempt to soak up as much fluid as possible. All efforts must be made to stop any water courses from becoming contaminated.
- Recorder notifies crew office of incident. Office notifies client of incident.

### Pipeline Rupture or Leak

- Recorder immediately stops production and calls for radio silence.
- All personnel evacuate area. Extinguish all cigarettes and shut off all engines of vehicles left in area. Poisonous or explosive gases may be present. Any personnel incapacitated in the immediate area of the rupture should be left behind until rescue by personnel equipped with breathing apparatus can be arranged. Nobody should re-enter the area of the leak without breathing packs.
- Recorder immediately notifies crew office. Office to maintain an accurate and timed radio communication and telephone log.
- Senior member of staff attends scene, maintaining safe distance. Identify location of rupture or leak. Identify pipeline affected. Determine emergency contact number for pipeline company. This number is located on plaques erected along major pipeline routes at intervals and at road crossings.
- Office or recorder calls pipeline company with details of incident, location of spill, nature of fluids or gases observed etc. Pipeline company should shutdown pipeline.
- Office calls client representative and field manager. Office also notifies Geco-Prakla base, Calgary.

### Important Information

- Advance Crew Office Telephone:
- :
-

Effective Date: 10/13/00

- EPS

## Radio Frequencies –

Conversion Radio Frequencies:

USA Radios	Canadian Radios
Channel 1: 153.050	Channel 1: 153.050
Channel 2: 153.080	
Channel 3: 153.110	
Channel 4: 153.140	
Channel 5: 151.170	
Channel 6: 151.230	Channel 2: 153.230
Channel 7: 153.290	Channel 3: 153.290
Channel 8: 153.320	Channel 4: 153.320
Channel 9: 153.350	
Channel 10: 158.310	
Channel 11: 158.370	
Channel 12: 158.430	

Additional Canadian radios:

Channel 5: 151.4 - 156.2	Repeater
Channel 6: 153.325	

**Fuel Spill Contingency Plan**

**Effective date : January, 2000**

**Revision History**

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# Schlumberger

Rev No	Effective Date	Description	Prepared by (name)	Reviewed by (name)
1-99			J.Marty Swagar	Ken Lengeyel Bob Dreaver
Latest revision approved by (name):			Signed:	

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## 1. Purpose

The purpose of the Fuel Spill Contingency Plan is to provide an action plan for Geco-Prakla employees and their contractors for responding to a fuel spill in order to protect human safety and minimize damage to facilities and the environment, and for the rapid notification of Company staff and government authorities.

## 2. Scope

This procedure applies to all Geco-Prakla land crews working in the NWT, and the Yukon. This includes sub-contractors who are working directly for Geco-Prakla.

## 3. References

## 4. Definitions

### 4.1.1. Senior Line Manager

The senior line manager is the person with the highest level of authority on the worksite. This individual is responsible for ensuring that the standard is complied with *on site*. Often, the Advance Party Manager (APM) is the senior line manager on site. However, for cases where no APM is present the senior line manager may be the Senior Surveyor. The Project Manager is responsible for designating the senior line manager.

## 5. Responsibilities

### 5.1.1. A Project Manager

- a) Ensure that compliance to the standard by all those on the project.
- b) Ensure that the organisational structure for the project is made clear to all involved, including both Geco-Prakla personnel and subcontractors.

### 5.1.2. Line Manager

- a) Supervise the operation to ensure compliance with local regulation, Geco-Prakla HSE Manual, and these Standards.

### 5.1.3. NAM QHSE Supervisor

- a) Standard custodian. Responsible for revising and updating this standard as required.
- b) Advise project manager concerning implementation of this standard.
- c) Scrutinise documentation submitted by subcontractor.
- d) Ensure that subcontractor audits and inspections are done to a high standard.

Support QHSE Advisors and QHSE Co-ordinators in their roles as they relate to subcontractors

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## 6. Actions

### 6.1.1. Compliance

a) Failure to comply with the requirements of this standard may result in disciplinary action, including progressive discipline, cessation of operations, termination of contract and so forth.

## 6.2. Exploration and Support Program Description

Project Title:.

Approximate Staging Areas:

Location:

Estimated Operational Days:

Fuel Delivery:.

Administration: Schlumberger

## 6.3. Oil Spill Response Equipment

- 3 Roll of Sorbent Blanket
- 6 Scoop Shovels
- 4 205 litre Empty drums with lids off

### 6.3.1. Logistic Support

### 6.3.2 Contact Lists

#### Government

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## **6.3.2. Geco-Prakla - Calgary - Contact List**

Advance Party Manager:

Recording Crew Party Manager:

Project Manager:

Canada Land Manager: Al Chatenay

(403) 509-4480

## **6.3.3. Spill Cleanup Services**

## **6.4. POSSIBLE SCOPE OF SPILLS**

### **6.4.1. Vehicle Fuel Transfer**

Diesel fuel spill on frozen ground, snow or ice while transferring fuel from fuel truck to field vehicles.

## **6.5. INITIAL RESPONSE ACTIONS**

Upon discovery of a spill, the first person on the scene:

1. Protects the lives of anyone in the spill area.
  2. Isolates or removes any potential ignition sources if possible.
-

3. Locates likely source or cause of spill and stops flow or release (do not take any unnecessary risk).
4. Assesses the likely size, extent and conditions of spill.
5. Notifies immediate supervisor, foreman or superintendent.
6. Notifies at 24 Hour Spill Number
7. Attempts to contain spread of spill if possible using available equipment/materials.
8. Records all relevant information for reporting purposes.

## **6.6. SPILL RESPONSE COUNTERMEASURES**

Seismic operations will be conducted during the winter months only. Countermeasures procedures have, however, also been included to cover a spill during the summer months.

See Appendix II for a listing of spill response equipment available.

### **6.6.1. Land Spills - Winter and Confined to Land**

#### **6.6.2. Detection**

Areas are usually snow covered and limits are highly visible. For Spills that are not witnessed, the ground cover will be stained around the equipment or container.

Probing will locate spill area under a depth of snow.

#### **6.6.3. Containment**

Build frozen dikes to contain spill.

Use plastic sheeting to line face of dike.

#### **6.6.4. Recovery**

Pump liquid product into empty drums or tanks for future acceptable disposal.

#### **6.6.5. Contaminated Snow Cleanup**

Use mechanical and hand equipment to scrape up product-in-snow mixture and load into dump trucks.

Haul product-in-snow mixture to a suitable site with pit or container facilities, e.g., Esso Norman Wells, or Artic Tire in Inuvik.

#### **6.6.6. Caution**

If terrain conditions indicate long term terrain damage may result by bulldozer scraping, then hand cleanup may be necessary with a final cleanup done as the snow melts and the terrain surface starts to thaw.

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## 6.6.7. Burning

Immediate burning may be desirable as decided by the Containment and Clean-up Foreman. Pick up residue after burn has been complete.

### Land Spills - Winter, On Ice

#### Caution

Be sure to check ice thickness for load bearing capacity.

#### Detection

Determine perimeter of spill area.

#### Burning

Immediate burning may be desirable as decided by the Containment and Clean-up Foreman. Pick up residue after burn has been completed.

#### Containment

Construct frozen snow dikes or ice trenches around perimeter of spill for containment.

Prevent escape of product into cracks

- dike off

- - seal with snow/water mixture

#### Recovery

Recover pumpable product and store in steel drums or tanks for future disposal.

#### Cleanup

Pick up contaminated snow using mechanical equipment or hand labour.

Store in steel drums for ultimate disposal or transport by means of dump truck to a disposal site.

Use sorbent to cleanup remaining contained product.

Recover oiled sorbents and place into steel drums for ultimate disposal.

### Water Spills - Summer

#### Containment-Booms

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# Schlumberger

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Deploy oil spill boom on lakes, streams and rivers to contain or divert spill to recovery area.

## Recovery-Sorbents

Place sorbent blanket or pads onto contained fuel.

Recover oiled sorbent and place into steel drums.

Transfer filled drums to on-land site for burning of fuel soaked sorbent or to a government approved land disposal site for burial.

## Recovery-Skimmer

Use an oil spill skimmer to recover spilled fuel, if spill is too large to recover with sorbents.

Store recovered small volumes of fuel and water in steel drums.

Store larger volumes of recovered fuel and water in empty fuel tank on barge for transfer to a remote recycling or acceptable disposal site, if necessary.

## Land Spills - Summer and Confined to Land

### Containment

Construct dikes or drainage trenches to prevent fuel spills from migrating (particularly into water).

### Recovery

Pump liquid product into empty drum or tanks for future acceptable disposal.

### Cleanup

Use sorbents to cleanup remaining surface oil. Recover oiled sorbents and place into steel drums for ultimate disposal.

### Burning

Immediate burning may be desirable to prevent the spread of fuel as decided by the Containment and Clean-up Foreman. Pick up residue after burn has been completed.

### Soil Removal

Contaminated soil may be removed to storage for acceptable disposal. In most cases, however, contaminated soil should be left in place and the hydrocarbon contaminant allowed to biodegrade. Enhancement of this process through use of amendments may also be warranted.

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## **6.7. DISPOSAL**

The following are a number of methods available in the Fort Norman/Norman Wells/Inuvik area for the disposal of oil spill products.

### **6.7.1. In-Situ Burning at Spill Site**

In the case of a major spill, some of the fuel released at the site may be disposed of through in-site burning. Precautions must be taken to ensure fire cannot burn back to fuel storage tanks.

### **6.7.2. Open Pit-Burning**

Incineration of oiled debris in open pits or open top barrels is another alternative at remote sites.

Surface burning, using berms and built-up areas wherever possible, is preferred to disturbing the permafrost substructure.

### **6.7.3. Burial**

Another method of disposal of large quantities of oil and oil contaminated debris could be by burial.

Permission must be granted through a land use permit obtained by DIAND.

Contact: Rob Walker Inuvik (867) 777-3361

DIAND District Manager

If there is a possibility of oil spill debris disposal in Fort Norman, Norman Wells or any other community permission may also be required from the Government of Northwest Territories.

Contact: Regional Superintendent (GNWT, Inuvik)

(867)777 -7200

### **6.7.4. Stop Oil Disposal Site - Norman Wells – Inuvik**

Oil contaminated snow and recovered oil, either fluid or frozen, may be transported to Esso slop oil disposal facilities in Norman Wells. The oil can then be burned or recovered by gravity separation and skimming in spring thaw. In Inuvik, contact Artic Tire for transportation of contaminated snow from spill site to Inuvik for disposal or burning.

Arrangements to receive any spill material must be made with Esso prior to its transport to Norman Wells.

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## 6.8. POST SPILL REPORTS

- a) Any spill which is a violation
- b) any spill reported to a government agency
- c) any oil spill (not otherwise reportable) which is greater than 0.15m<sup>3</sup> (one barrel) in size
- d) any spill which has received or may receive public new media attention

The diaries of the on-site personnel are the primary sources of information. The accounting group provides the summary analysis and cost breakdown of the cleanup operation. The report should include the following:

- an analysis of events leading up to the spill, cause of the spill, type of oil spilled, duration of spill
  - a chronological description of all areas contaminated by the spill and extent of contamination
  - cleanup procedures utilized in each area, including duration of activities, number of personnel involved in the cleanup, types and number of equipment employed
  - description of weather conditions, and river currents and how they affected the movement of the oil and the cleanup operations
  - an analysis of the success of cleanup in each area contaminated, and evaluations of equipment used
  - description of environmental protection measures and their success
  - initial statement of environmental impacts
  - statement of property damage
  - summary of total volume of the spill and volume recovered, and estimates of the fate of the oil lost including approximate amount lost to each natural process
  - statement of damage to company property as well as damage to others' property, including details of cause, type and extent of damage
  - salvage operations and their success (if applicable)
  - a list of all government personnel and other authorities contacted including date, time and title
  - all news released, government communications and records of interviews
  - summary cost breakdown of cleanup, including equipment, manpower, materials, accommodations, transportation claims
  - summary of injuries or deaths caused by the spill or occurring during cleanup
  - suggestions to improve cleanup operations during future responses
  - summary analysis of what went right and what went wrong including reporting procedures
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27 September, 2000

**CAGC SAFETY BULLETIN SHOT HOLE DRILLING – WORKING IN SHALLOW GAS**

Hazards – Explosion

**SAFE WORK PROCEDURES – WORKING IN SHALLOW GAS**

- 1) Always set drill unit upwind.
- 2) There must be no open ignition sources (i.e. Herman Nelsons, tiger torches, smoking or generators) while drilling or loading a hole.
- 3) Water vents must be left open and never closed while drilling or loading water.
- 4) A check valve must be installed on the kelly hose.
- 5) When in known shallow gas areas, two (2) rigs must always work in close proximity.
- 6) When in known shallow gas areas, water must be loaded from an alternative source.
- 7) When loading water ensure that the suction hose is well below the bottom of the ice.
- 8) In the event of a shallow gas encounter the following must be adhered to:
  - Immediately shut the rig off (i.e. kill switch)
  - Immediately vacate area and walk to next rig to report encounter

NOTE: Never use the radio in your cab

  - When blow has subsided return to the shot point and abandon hole
  - Move to next shot point and commence drilling

## Conditions of Approval

### 1) Shallow Gas

This is an area of possible shallow gas and gas hydrate deposits. The Operator must be familiar with Section 19, Drilling Shot Holes for Charges, in the Canada Oil and Gas Geophysical Operations Regulations. All necessary precautions shall be made while drilling shotholes to ensure that any released gas is not ignited. The following precautions are to be taken, but not limited to:

- a) there must be no open ignition sources such as generators, Herman Nelsons or smoking;
- b) if gas is encountered while drilling, a flowing hole report, that indicates the shot hole location, must be submitted without delay to a Safety Officer;
- c) use alternate means of communication to report the encountering of shallow gas, not the cab radio in the rig that has encountered the gas;
- d) if gas is encountered, explosives shall not be detonated in the encountering shothole until cleared by the Safety Officer;
- e) check valve must be installed on the kelly hose
- f) water vents must be left open and never closed while drilling or loading water; and
- g) water must be loaded from a source that has low potential for gas with the suction hose well below the bottom of the ice. This condition also applies to obtaining camp water from a frozen water body where shallow gas/hydrates may be a concern.

### 2) Ice Monitoring

Prior to crossing or working on any body of water, not found to be frozen to the bottom, the following procedures are to be followed;

- a) the ice is to be profiled utilizing the same care and due diligence that would be displayed drilling shot holes. Ice areas shall not be crossed or worked on until profiling indicates that the ice thickness is satisfactory as per approved COMPANY Health Safety and Environmental Manual Land Operations;
- b) profiles shall be available upon request by the Safety Officer;
- c) equipment and personnel shall not travel beyond or on ice that has not been previously tested and profiled;
- d) if gas is encountered or expected in an area, it is recommended that profiling be done more frequently to identify any areas that may have been eroded due to ice thinning; and
- e) if gas is found to be venting through the ice a Safety Officer must be informed prior to any work being conducted in that area.

## GEOPHYSICAL CONTACTS TELEPHONE LIST

### NATIONAL ENERGY BOARD

### Telephone Number

Rick Turner, Operations Inspector	Office: (403) 299-3868 Home: (403) 257-0840
Rick Fisher, Drilling Specialist	Office: (403) 299-2798 Home: (403) 220-0893
Chris Knoechel, Operations Engineer	Office: (403) 299-3866 Home: (403) 241-0047
Andrew Graw, Operations Engineer	Office: (403) 299-2790 Home: (403) 547-3073
Terry Baker, Chief Conservation Officer	Office: (403) 299-2792 Home: (403) 239-5032
John McCarthy, Chief Safety Officer	Office: (403) 299-2766 Home: (403) 240-2354
Calgary Main Office	(403) 292-4800
FAX:	(403) 292-5876

Phone calls are to be directed to person at top of this listing; if unable to establish contact the next person on the list should be contacted.

SPILL REPORTING -24 HOUR SPILL LINE:	(867) 920- 8130
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Bruce Moores, Environmental Specialist	Office: (403) 299-3926 Home: (403) 201-3765
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Hazardous occurrences (as prescribed under section 16 of the Canada Oil and Gas Occupational Safety and Health Regulations) are to be reported to the N.E.B. immediately. The N.E.B. also requires immediate notification of any accident or incident requiring medevac.

## APPENDIX C

### ARCHAEOLOGICAL SITE DESCRIPTIONS

**BORDEN**

SITE NAME	Bombardier Channel
PERMIT NUMBER	NWT 83-528
LOCATION	East bank of Oniak Channel, immediately north of junction with Bombardier Channel.
MAP REFERENCE	107B/11E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:31:15:N, 134:00:25:W
UTM	8WNM E405 N015
ELEVATION 1	4.00-4.00 m ASL
CONDITION	destroyed by erosion, looting
SITE TYPE CLASS	indigenous historic
TYPE	burial
FEATURES	grave
CULTURE	Inuvialuit
OCCUPATION PERIOD	19th century
RESEARCHER NAME	Arnold, C.
DATE OBSERVED	1983
REMARKS	

When first observed by C. Arnold in 1982, the site was eroding out of a riverbank. Erosion of the site was almost complete by June 1983 and subsequent looting of the site resulted in its complete destruction by August 1983. When intact, the site apparently consisted of a multiple burial, containing the remains of at least three individuals and covered by logs. The feature was covered by ca. 50 cm alluvium, and heavy vegetation. Collection includes small amounts of iron, European copper and one glass bead. Arnold's 1983 collection (acc. 2436) was deaccessioned in 1987 to PWNHC.

**BORDEN****NeTs-1**

PERMIT NUMBER	NWT 72-321
LOCATION	On a gravel ridge about one mile from the east channel of the Mackenzie River.
MAP REFERENCE	107B/11E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:44:20:N, 134:13:05:W
UTM	8WNM E3164 N2530
SITE TYPE CLASS	prehistoric
TYPE	find (isolated)
RESEARCHER NAME	Gordon, B.C.
DATE OBSERVED	1972
REMARKS	A single lithic artefact collected.

<b>BORDEN</b>	<b>NeTs-2</b>
PERMIT NUMBER	NWT 72-321
LOCATION	Caribou Hills on an exposed sandy ridge. Site is located on low portion of Caribou Hills overlooking the E. Channel of the Mackenzie, about 5 km by air, N. of Reindeer Station.
MAP REFERENCE	107B/11E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:43:46:N, 134:12:09:W
UTM	8WNM E3228 N2420
AERIAL PHOTO	A12918-152
ELEVATION 2	200.0-200.0ft. ASL
SIZE	200 m. x 200 m.
CONDITION	grave is disturbed, prehistoric component is eroding
SITE TYPE CLASS	prehistoric indigenous historic
TYPE	burial
FEATURES	grave (log)
CULTURE	Inuvialuit
RESEARCHER NAME	Gordon, B.C.
DATE OBSERVED	1972
REMARKS	Flake end scraper, the latter similar to one found at Whirl Lake. (Gordon 1972) Prehistoric component indicated by 1 quartzite cobble core and one possible quartzite pebble core. (Le Blanc 1986)
 <b>BORDEN</b>	 <b>NeTs-3</b>
FIELD NUMBER	86RJL088
PERMIT NUMBER	NWT 86-603
LOCATION	Site is located on a low knoll in the Caribou Hills, which overlooks the East Channel of the Mackenzie River, 4.5 km by air north of Reindeer Station. Knoll is very obvious from river.
MAP REFERENCE	107B/11E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:43:34:N, 134:11:45:W
UTM	8WNM E3256 N2383
AERIAL PHOTO	A12918-152
ELEVATION 2	100.0-100.0 ft. ASL
SIZE	100 m. x 100 m.
CONDITION	prehistoric component is eroding
SITE TYPE CLASS	prehistoric indigenous historic
RESEARCHER NAME	Le Blanc, R.
DATE OBSERVED	1986
REMARKS	Historic component indicated by presence of grave with headboard with date of 1970. Prehistoric component is major one and includes quartzite flakes, a ground and retouched quartzite tool and firecracked rock. All of latter material collected from 2 small benches on the S.E. corner of knoll.

<b>BORDEN</b>	<b>NeTs-4</b>
FIELD NUMBER	86RJL034
PERMIT NUMBER	NWT 86-603
LOCATION	Site is located on the north end of Peter Lake on top of an ice thrust moraine situated just east of the outlet stream.
MAP REFERENCE	107B/14E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:47:37:N, 134:10:00:W
UTM	8WNM E3363 N3138
ELEVATION 2	300.0-300.0ft. ASL
SIZE	200 m. x 200 m.
CONDITION	stable
SITE TYPE CLASS	prehistoric
FEATURES	stone feature
RESEARCHER NAME	Le Blanc, R.
DATE OBSERVED	1986
REMARKS	Collection includes quartzite flakes, spalls and cobble cores collected from with feature limits and in surrounding area to the east, south and west.

<b>BORDEN</b>	<b>NeTs-4</b>
FIELD NUMBER	86RJL034
PERMIT NUMBER	NWT 86-603
LOCATION	Site is located on the north end of Peter Lake on top of an ice thrust moraine situated just east of the outlet stream.
MAP REFERENCE	107B/14E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:47:37:N, 134:10:00:W
UTM	8WNM E3363 N3138
ELEVATION 2	300.0-300.0 ft. ASL
SIZE	200 m. x 200 m.
CONDITION	stable
SITE TYPE CLASS	prehistoric
FEATURES	stone feature
RESEARCHER NAME	Le Blanc, R.
DATE OBSERVED	1986
REMARKS	Collection includes quartzite flakes, spalls and cobble cores collected from with feature limits and in surrounding area to the east, south and west.

<b>BORDEN</b>	<b>Nftt-1</b>
SITE NAME	Burial Island
PERMIT NUMBER	NWT 75-370
LOCATION	On Burial Island just S. Off Tununuk Point in the E. channel of the Mackenzie River, in the Mackenzie Delta.
MAP REFERENCE	107B/14W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	68:59:40:N, 134:39:28:W
UTM	8WNM E137 N540
SITE TYPE CLASS	undetermined
TYPE	burial
FEATURES	grave
RESEARCHER NAME	Wilmeth, R.
DATE OBSERVED	1975

<b>BORDEN</b>	<b>NgTs-1</b>
FIELD NUMBER	Swayze 93-27
PERMIT NUMBER	NWT 93-747
PROJECT	Tuktoyaktuk Peninsula Interior Archaeology
LOCATION	On the east shore of the East Channel approximately 5.5 km north of the mouth of Holmes Creek.
MAP REFERENCE	107C/3E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:09:10:N, 134:16:07:W
UTM	8WNM E2905 N7136
ELEVATION 1	10.00-10.00m. ASL
SIZE	6 m. sq.
SITE TYPE CLASS	indigenous historic
TYPE	burial
FEATURES	grave (log)
CULTURE	Inuvialuit
OCCUPATION PERIOD	100 B.P.
RESEARCHER NAME	Swayze, K.
DATE OBSERVED	1993
REMARKS	Observed from the air only so not able to determine condition precisely, or nature of grave furniture. Consists of a single log-crib grave.

<b>BORDEN</b>	<b>NgTt-1</b>
FIELD NUMBER	NWTC-2
LOCATION	E. side of East Channel of Mackenzie River. Across from Tununuk Point.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:01:00:N, 134:37:30:W
UTM	8WNM E150 N561
SITE TYPE CLASS	contemporary
TYPE	campsite (hunting, reindeer)
FEATURES	cache
RESEARCHER NAME	MacNeish, R. S.
DATE OBSERVED	1954
REMARKS	Accession 1604 catalogued under Old System XI-C:502-504. Site consists of remains of a camp of present-day reindeer herders. A few artefacts such as a blade and bone handle found in excavations around these houses.

<b>BORDEN</b>	<b>NgTt-2</b>
SITE NAME	Nennorai
LOCATION	E. side of East Channel of Mackenzie River, S. of NgTt-1. On mainland, just opposite south end of Richardson (Richards) Island on a point called Nennorai.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:00:10:N, 134:37:30:W
UTM	8WNM E150 N544
SITE TYPE CLASS	undetermined
TYPE	campsite
FEATURES	house
CULTURE	Inuvialuit
RESEARCHER NAME	MacNeish, R. S.
DATE OBSERVED	1954
REMARKS	Specimen catalogued under Old System IX-D:135. No artefacts found by MacNeish, outlines of a number of T-shaped houses could be seen.

<b>BORDEN</b>	<b>NgTt-4</b>
SITE NAME	Holmes Creek Sinigyuak
PERMIT NUMBER	NWT 96-826
ERRORS	ER = NATURE OF ERROR: Site originally incorrectly designated NhTs-3. Designation then incorrectly changed to NhTt-4. ACTION TAKEN: Designation finally corrected to NgTt-4. LU2 = crossref
LOCATION	Mouth of Holmes Creek on the Mackenzie River, south side.
MAP REFERENCE	107C/3E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:06:48:N, 134:20:46:W
UTM	8WNM E2603 N670
SITE TYPE CLASS	indigenous historic
TYPE	campsite (hunting, caribou, fall)
CULTURE	Inuvialuit
OCCUPATION PERIOD	19th century
RESEARCHER NAME	Friesen, M.
DATE OBSERVED	1996
REMARKS	

Flakes and bone tool collected by Van Dyke in 1978. Nineteenth century caribou hunting station of Mackenzie Eskimo culture. Collected assemblage of inland hunting equipment (McGhee 1970). In 1996, Friesen, accompanied by C. Arnold, could not relocate McGhee excavations and no other house depressions were noted. The site has likely been destroyed (Friesen, 1996).

<b>BORDEN</b>	<b>NgTt-5</b>
FIELD NUMBER	Ya-Ya 1
SITE NAME	Ya-Ya Lookout
PERMIT NUMBER	NWT 92-727
PROJECT	NOGAP Archaeology
LOCATION	On the peak of a kame hill about 250 m. north of the east arm of Ya-Ya Lake on Richards Island. About 75 km west of Tuktoyaktuk.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:07:55:N, 134:39:09:W
UTM	8WNM E1380 N6890
ELEVATION 1	46.00-46.00 m. ASL
SIZE	400 m. sq.
CONDITION	poor due to wind deflation
SITE TYPE CLASS	prehistoric
TYPE	campsite lookout
FEATURES	hearth scatter (fire cracked rock)
RESEARCHER NAME	Swayze, K.
DATE OBSERVED	1992
REMARKS	Only one flake found on surface. Nothing found in 12 test pits. Small hearth with fire cracked rock in blowout. No artefacts, bone or charcoal found.

<b>BORDEN</b>	<b>NgTt-6</b>
FIELD NUMBER	Ya-Ya 2
SITE NAME	Ya-Ya Saddle
PERMIT NUMBER	NWT 92-727
PROJECT	NOGAP Archaeology
LOCATION	On a saddle between two kame hills about 200 m. north of the east arm of Ya-Ya Lake, Richards Island. About 75 km west of Tuktoyaktuk.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:07:56:N, 134:38:44:W
UTM	8WNM E1409 N6893
ELEVATION 1	30.00-30.00 m. ASL
SIZE	100 m. sq.
CONDITION	poor due to wind deflation
SITE TYPE CLASS	prehistoric
TYPE	campsite workshop (lithic)
FEATURES	scatter (lithic)
RESEARCHER NAME	Swayze, K.
DATE OBSERVED	1992
REMARKS	A small flake scatter of greenish argillite (?) on a sandy wind-deflated saddle. All lithics are probably from the same cobble. Site probably occupied for a very brief time. No buried component. No modified lithics.
 <b>BORDEN</b>	 <b>NgTt-7</b>
FIELD NUMBER	Ya-Ya 3
SITE NAME	Ya-Ya Cairn
PERMIT NUMBER	NWT 92-727
PROJECT	NOGAP Archaeology
LOCATION	High on a hill to the east of the east arm of Ya-Ya Lake on Richards Island. About 75 km west of Tuktoyaktuk.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:08:02:N, 134:37:55:W
UTM	8WNM E1462 N6910
ELEVATION 1	46.00-46.00 m. ASL
SIZE	4 m. sq.
CONDITION	excellent
SITE TYPE CLASS	undetermined
FEATURES	cairn
RESEARCHER NAME	Swayze, K.
DATE OBSERVED	1992
REMARKS	The site is a rock cairn consisting of lichen encrusted rocks in a pile about 1.5 m. high. It is capped with a large white boulder visible for many kilometres. Not tested, but nothing observed in nearby blow-out. The cairn should not be disturbed.

<b>BORDEN</b>	<b>NgTt-8</b>
FIELD NUMBER	Ya-Ya 4
SITE NAME	Ya-Ya Plateau
PERMIT NUMBER	NWT 92-727
PROJECT	NOGAP Archaeology
LOCATION	High on a plateau on the east side of the north arm of Ya-Ya Lake, north of the narrows. About 75 km west of Tuktoyaktuk.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:08:32:N, 134:39:46:W
UTM	8WNM E1339 N7005
ELEVATION 1	30.00-30.00 m. ASL
CONDITION	poor due to wind deflation
SITE TYPE CLASS	prehistoric
TYPE	find (isolated)
RESEARCHER NAME	Swayze, K.
DATE OBSERVED	1992
REMARKS	A single utilized flake from a plateau overlooking Ya-Ya Lake. Nothing else found despite test pits and intensive surface scrutiny. Similar chert material found on ASTt sites.

<b>BORDEN</b>	<b>NgTt-9</b>
FIELD NUMBER	Swayze 93-21
PERMIT NUMBER	NWT 93-747
PROJECT	Tuktoyaktuk Peninsula Interior Archaeology
LOCATION	On three small knolls approx. 800 m south of mouth of Holmes Creek and 200 m inland from the river.
MAP REFERENCE	107C/3E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:06:30:N, 134:20:27:W
UTM	8WNM E2623 N6636
ELEVATION 1	18.00-18.00 m. ASL
SIZE	2000 m. sq.
CONDITION	poor - eroded and/or looted
SITE TYPE CLASS	indigenous historic
TYPE	burial
FEATURES	grave (log)
CULTURE	Inuvialuit
OCCUPATION PERIOD	100 B.P.
RESEARCHER NAME	Swayze, K.
DATE OBSERVED	1993
REMARKS	Three graves, one on each of three knolls 2-300 m from the 2 old log cabins. They appear disturbed - logs spread about - no grave furniture visible and very little skeletal remains. According to Brian Raddi the area is known for ghosts. The graves are of the log-crib type.

<b>BORDEN</b>	<b>NgTt-10</b>
FIELD NUMBER	Sutherland 93-3
PERMIT NUMBER	NWT 93-749
LOCATION	About 2.5 km north of the Mackenzie River, and about 35 km. southeast of Yaya Lake.
MAP REFERENCE	107C/3E
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:07:50:N, 134:27:59:W
UTM	8WNM E2121 N6881
ELEVATION 1	30.00-30.00 m. ASL
SITE TYPE CLASS	indigenous historic
TYPE	campsite

FEATURES	lookout
RESEARCHER NAME	scatter (wood)
DATE OBSERVED	Sutherland, P.
REMARKS	1993

This site was located during a walking survey. It is on the lower part of an isolated upland that rises to roughly 30 m. in elevation. The site provides a commanding view of the surrounding area, which is filled with small lakes and bog. It sits on a gravel exposure about 30 m. in length and consists of a scatter of wood chips, charcoal, a single driftwood log and a piece of caribou antler.

<b>BORDEN</b>	<b>NgTt-11</b>
FIELD NUMBER	Sutherland 93-10
PERMIT NUMBER	NWT 93-749
LOCATION	At the northwest corner of the airstrip located at Tununuk, Mackenzie River.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:00:24:N 134:39:49:W
UTM	8WNM E1345 N5494
SITE TYPE CLASS	prehistoric
FEATURES	scatter (lithic) scatter (bone)
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	One artefact, part of a possible microblade core as well as 2 heavily eroded bone fragments and another 5 lithic specimens were recovered from this part of the airstrip. It is possible that this material was brought in from elsewhere with the gravel used to create the strip.

<b>BORDEN</b>	<b>NgTt-12</b>
FIELD NUMBER	Sutherland 93-11
PERMIT NUMBER	NWT 93-749
LOCATION	On a sand/gravel exposure situated on a 30 m. terrace overlooking East Channel, Mackenzie River.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:01:30:N, 134:38:43:W
UTM	8WNM E1416 N5697
SITE TYPE CLASS	indigenous historic
TYPE	burial ?
FEATURES	scatter (wood) grave ?
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	

The site was found during a walking survey. On the surface were wood fragments and pieces of tin. The exposures were shovel tested and 3 pieces of worked wood were collected. In a patch of vegetation at the highest point on the terrace, there is a feature which consists of randomly piled driftwood logs. It measures approximately 4 m. in length by 2 m. in width. This may represent a grave, but no human remains or artifacts were seen. This feature was left undisturbed.

<b>BORDEN</b>	<b>NgTu-1</b>
SITE NAME	Tununuk Point
PERMIT NUMBER	NWT 93-749
ERRORS	ER = NATURE OF ERROR: Published incorrectly as NgTt-3 by B.C. Gordon. ACTION TAKEN: Documentation changed back to correct designation, NgTu-1, in April 1982 by Karen Albright. LU2 = crossref
LOCATION	Site located on S. tip of Richardson (Richards) Island.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:00:30:N, 134:40:30:W
UTM	8WNM E130 N5473
SITE TYPE CLASS	prehistoric indigenous historic
TYPE	burial
FEATURES	grave house
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	

Accession 1604 refers to Old System IX-D:501, and here is also a Bordenized collection, which was not catalogued until some time after 1970. On the highest point there is a large series of graves, some of which are of fairly recent date. Just north of this bluff, around a small pothole lake, are some house remains that also seem recent. Wooden bow found. Recent site, historical material found. Sutherland revisited this site in 1993 and reported extensive disturbance over the entire area. She unable to relocate the house remains here.

<b>BORDEN</b>	<b>NgTu-2</b>
FIELD NUMBER	Sutherland 93-1
PERMIT NUMBER	NWT 93-749
LOCATION	On the highest point of a kame/kettle complex on the western shore of Yaya Lake.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:09:34:N, 134:42:05:W
UTM	8WNM E1185 N7194
ELEVATION 1	35.00-35.00 m. ASL
SITE TYPE CLASS	indigenous historic
TYPE	campsite
FEATURES	stone feature
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993//
BIBLIOGRAPHIC REF.	ASC ARCHIVES Ms. 3741
REMARKS	Tin cans, pieces of timber and cartridge cases were found scattered among several features vaguely defined by rock outlines. This appears to be a camp/lookout site relating to the recent period of Delta occupation and may represent the remains of a reindeer herder's camp from the 20 <sup>th</sup> century. Shovel tested; no artifacts were recovered.

<b>BORDEN</b>	<b>NgTu-3</b>
FIELD NUMBER	Sutherland 93-2
PERMIT NUMBER	NWT 93-749
LOCATION	About 300 m. north of NgTu-3, on the same Kame/Kettle complex on the western shore of Yaya Lake.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:09:41:N, 134:42:11:W
UTM	8WNM E1178 N7218
SITE TYPE CLASS	prehistoric
FEATURES	stone feature
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	This site was found during a walking survey. It is at a slightly lower elevation than NgTu-3. It consists of a vaguely defined rock feature about 6 m. long and 2 m. wide. A quartzite flake was recovered from the feature.
 <b>BORDEN</b>	 <b>NgTu-4</b>
FIELD NUMBER	Sutherland 93-7
PERMIT NUMBER	NWT 93-749
LOCATION	Between Yaya Lake and the large unnamed lake to the south. In a kame complex.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:06:14:N, 134:43:54:W
UTM	8WNM E1068 N6575
ELEVATION 1	15.00-30.00 m. ASL
SITE TYPE CLASS	indigenous historic
TYPE	campsite
FEATURES	tent ring
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	The site was found during a walking survey. A tin can, a bone fragment and rocks forming the vague outline of a tent ring were observed here.
 <b>BORDEN</b>	 <b>NgTu-5</b>
FIELD NUMBER	Sutherland 93-8
PERMIT NUMBER	NWT 93-749
LOCATION	In the same area as NgTu-4, in a kame complex between Yaya Lake and the large unnamed lake to the south.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:06:24:N, 134:44:00:W
UTM	8WNM E1060 N6606
SITE TYPE CLASS	indigenous historic
FEATURES	cairn
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	Consists of a small cairn with a wooden pole lying nearby. There is also another rock feature of unknown function located a few metres away.

<b>BORDEN</b>	<b>NgTu-6</b>
FIELD NUMBER	Sutherland 93-12
PERMIT NUMBER	NWT 93-749
LOCATION	On the Middle Channel of Mackenzie River. About 1.5 km southeast of the southern end of Yaya Lake.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:02:28:N, 134:44:27:W
UTM	8WNM E1034 N5874
ELEVATION 1	10.00-15.00 m. ASL
SITE TYPE CLASS	indigenous historic
TYPE	campsite
FEATURES	house scatter (metal)
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	This site was spotted from the air during a helicopter survey. It was briefly examined on the ground during a short set down. It consists of the collapsed remains of a house feature with plank flooring. There was metal scattered around the outside of the feature. No testing was done.

<b>BORDEN</b>	<b>NgTu-7</b>
FIELD NUMBER	Sutherland 93-14
PERMIT NUMBER	NWT 93-749
LOCATION	On a small Kettle Lake north of the western arm of Yaya Lake.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:06:53:N, 134:47:25:W
UTM	8WNM E0833 N6694
ELEVATION 1	15.00-30.00 m. ASL
SITE TYPE CLASS	prehistoric
FEATURES	stone feature
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	The site was spotted from the air during a helicopter survey. It was examined during a brief shutdown. Two features were observed and tested. The first consists of a cluster of rocks about 1.5 m. in diameter; the second comprised 2 parallel rows of rocks about 1 m. in length and 1.5 m. in width. A battered chert flake was surface collected near the second feature.

<b>BORDEN</b>	<b>NgTu-8</b>
FIELD NUMBER	Sutherland 93-15
PERMIT NUMBER	NWT 93-749
LOCATION	Above a small lake in a Kame/Kettle complex, about 800 m. inland from the north shore of the western arm of Yaya Lake.
MAP REFERENCE	107C/3W
JURISDICTION	Federal
OWNER	Inuvialuit
LAT/LONG	69:07:28:N, 134:45:11:W
UTM	8WNM E0982 N6802
ELEVATION 1	30.00-35.00 m. ASL
SITE TYPE CLASS	indigenous historic
FEATURES	cairn
RESEARCHER NAME	Sutherland, P.
DATE OBSERVED	1993
REMARKS	It was found during a helicopter survey and examined during a brief set down. Consists of a single rock feature, a small cache or more likely, a cairn. No artifacts were found. An historic or recent cabin.

**BORDEN**

FIELD NUMBER  
PERMIT NUMBER  
LOCATION  
MAP REFERENCE  
JURISDICTION  
OWNER  
LAT/LONG  
UTM  
ELEVATION 1  
SITE TYPE CLASS  
FEATURES  
RESEARCHER NAME  
DATE OBSERVED  
REMARKS

**NgTu-9**

Sutherland 93-16  
NWT 93-749  
About 1.5 km east of NgTu-8, Yaya Lake.  
107C/3W  
Federal  
Inuvialuit  
69:07:36:N, 134:42:36:W  
8WNM E1153 N6828  
15.00-30.00 m. ASL  
indigenous historic  
cairn  
Sutherland, P.  
1993

It was located during a helicopter survey and was examined from the air only. It consists of a rock feature, which appears to be a cairn of some type.

**BORDEN**

FIELD NUMBER  
PERMIT NUMBER  
LOCATION  
MAP REFERENCE  
JURISDICTION  
OWNER  
LAT/LONG  
UTM  
SITE TYPE CLASS  
FEATURES  
  
RESEARCHER NAME  
DATE OBSERVED  
REMARKS

**NhTt-1**

Sutherland 93-4  
NWT 93-749  
At the north end of Yaya Lake on a sand/gravel ridge at about 5 to 10 m. above lake level.  
107C/3W  
Federal  
Inuvialuit  
69:12:16:N, 134:36:17:W  
8WNM E1566 N7699  
indigenous historic  
scatter (wood)  
scatter (bone)  
Sutherland, P.  
1993

This site was found during a walking survey. It consists of a scatter of wood chips and bone. Limited testing was negative.

**BORDEN**

FIELD NUMBER  
PERMIT NUMBER  
LOCATION  
MAP REFERENCE  
JURISDICTION  
OWNER  
LAT/LONG  
UTM  
ELEVATION 1  
SITE TYPE CLASS  
TYPE  
FEATURES  
RESEARCHER NAME  
DATE OBSERVED  
REMARKS

**NhTt-2**

Sutherland 93-5  
NWT 93-749  
On a small sand/gravel ridge on the east side of Yaya Lake.  
107C/3W  
Federal  
Inuvialuit  
69:11:09:N, 134:35:53:W  
8WNM E1593 N7492  
15.00-20.00 m. ASL  
prehistoric  
find (isolated)  
scatter (lithic)  
Sutherland, P.  
1993

This site was found during a walking survey. Two pieces of chert were found in a blowout area and no features were observed. Several shovel tests were excavated, but nothing further was found.

**BORDEN**

FIELD NUMBER  
PERMIT NUMBER  
LOCATION  
MAP REFERENCE  
JURISDICTION  
OWNER  
LAT/LONG  
UTM  
ELEVATION 1  
SITE TYPE CLASS  
TYPE  
FEATURES  
RESEARCHER NAME  
DATE OBSERVED  
REMARKS

**NhTt-3**

Sutherland 93-6  
NWT 93-749  
About 200 m. south of NhTt-2, on a small sand/gravel ridge on the east side of Yaya Lake.  
107C/3W  
Federal  
Inuvialuit  
69:11:03:N, 134:35:52:W  
8WNM E1594 N7474  
15.00-20.00 m. ASL  
prehistoric  
find (isolated)  
scatter (lithic)  
Sutherland, P.  
1993  
A blowout site containing 8 lithic specimens including flakes, cores and spalls of quartzite, chert and an unidentified igneous material. No features were observed in association with the artefacts. Test pitting revealed a buried organic layer, but this does not appear to be cultural in origin.

## APPENDIX D

### APPROPRIATE LICENCES

# INUVIALUIT LAND ADMINISTRATION APPLICATION FORM

All rights applied for are subject to the IFA, ILA Rules and Procedures and the laws of General Application.

LOCATION NAME/LOCAL NAME	Mackenzie Delta – Inuvik 1 & 2 Blocks, EL #385 and #395
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Coordinates	68°30' – 69°09'	N	133°42' – 135°09'	W
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[illegible]

If a heading does not apply to your application, please indicate N/A. If insufficient space, please attach a separate sheet(s).

**1. Name and mailing address of Head Office of Applicant:**

Chevron Canada Resources  
500 - 5<sup>th</sup> Avenue SW  
Calgary, AB T2P 0L7

**Responsible officer or manager of Applicant:**

Mr. Kevin Williams, Geophysicist

**Telephone and Fax:**

Phone: (403) 234-5403  
Fax: (403) 234-5947

2. Type of Right(s) applied for: (Note: If a Right-of-Way forms part of the general activity applied for, make a separate application for the Right-of-Way.)

Land Use Permit (A)

**3. Type of Operation(s) to be carried out:**

Winter 2000/2001 Mackenzie Delta Inuvik Block 1 & 2 seismic program using dynamite explosive technique. Mobile sleigh camp will support program. See attached project description for further details.

4. **Planned duration of activities:**

January 2001 – April/May 2001.

**Please attach a detailed Schedule of Operation.**

See attached project description.

**5. Total Number of Personnel / Manpower requirements:**

Approximately 75 personnel.

6. **Total Number of Inuvialuit employed:**

To be determined.

7. **Names, addresses and functions of Inuvialuit contractors and sub-contractors:**

To be determined.

8. **Names, addresses and functions of non-Inuvialuit contractors and sub-contractors:**

Seismic Contractor:

Schlumberger Oilfield Services

525 – 3<sup>rd</sup> Avenue SW

Calgary, AB T2P 0G4

9. **Attach a concluded or proposed Participation Agreement or Access Agreement.**

To be completed.

10. **Planned surface requirements for land use / occupancy in hectares (ha):**

465 hectares.

**Attach a 1:50,000 NTS map showing the location and a preliminary plan showing area, measurements and location of all buildings, work areas, etc.**

See attached 1:50,000 map.

11. **Planned length of Right-of Way in kilometers (km):**

188 linear kilometers of seismic line.

12. **Waste and/or drilling fluid disposal arrangement (fuel fired forced air incinerator or specify other method):**

No waste cuttings are produced using Vibra-ram technology (refer to Project Description, Section 10.1). Excess waste cuttings from shot holes drilled on water bodies using casing technology will be collected from the surface and disposed of a minimum of 30 m away from the water body. Excess waste cuttings from shot holes drilled on land adjacent to water bodies will be spread out on snow a minimum of 30 m away from any water body.

**Garbage:** All garbage will be incinerated or transported to an approved waste management facility.

**Sewage (Sanitary & Grey Water):** Mobile sleigh camp is equipped with Incinolet toilets that eliminate sewage waste through incineration. The resulting ash is inert and will be spread out on the ground near the camp locations. Grey water will be steamed off using a grey water steamer. Refer to project description for further details.

13. **Equipment, vehicles, and facilities to be used (type, number, size, purpose, weight, etc.):**

Purpose of the following equipment is for support of the proposed program:

3 Ford F350 4x4	1 Recording Manager's Unit
2 Track Foremost 110 Nodwell	1 Recorder
1 Monitor Unit Snowmobile	1 Personnel Carrier Foremost Terraflex
2 Ambulances	1 Shooter's Unit
1 Cat Foreman/Mechanic Unit – Nodwell	4 Cable Units
6 D6D Cutting Cats	1 Mechanic's Units Foremost Nodwell
3 Slashing Units	1 Battery Charging Unit
1 Drill Crew Foreman/Mechanic Unit Nodwell	1 Equipment Transport Unit
7 Drill Nodwells	2 Support Units
2 Survey Coordinator Unit Nodwell	Fuel Transport Unit Foremost Chieftan
3 Survey Support Units Nodwell	Fuel Sloops
1 Bell 206 A-Star	Powder Magazines
	1 Water trucks

14. **Fuels to be used (type, number of containers, capacity, etc.):**  
*Diesel:* 1 tracked Chieftan Fuel Tanker – 36,360 litre capacity  
*Gasoline:* N/A  
*Aviation Fuel:* N/A  
*Propane:* N/A
15. **Method of emptying and filling fuel containers:**  
Conventional pumping system.
16. **Please attach FUEL/OIL SPILL CONTINGENCY PLAN.**  
See attached.
17. **Radio Equipment to be utilized with identification #:**  
To be determined.
18. **Emergency First Aid Facilities:**  
As per project Description.
19. **Potable Water Requirements:**  
Less than 100 m<sup>3</sup>/day to be withdrawn from the channels of the Mackenzie River.
20. **Attach a detailed project description expanding on the information given above and including any additional relevant information.**  
See attached Project Description.
21. **Where the applicant applies for a Right pursuant to Subsection 7(18) of the Agreement, attach copy of the right or interest granted by Canada on the basis of which this application is being made.**
22. **Fee calculations (based on ha and/or km as per current ILA Fee Schedules(s):**  
Application fees will include Land Use Permit Type A, Access Administration Fee, Wildlife Compensation Fee, and Land Use Rent. Fees are as follows:

Initial Application Fee:

Land Use Permit Class A	\$5,100.00	\$357.00gst
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Access Administration Fee:

Land Use Permit Class A (Seismic)	\$2,550.00	\$178.50gst
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Wildlife Compensation Fee:

25% of Access Administration Fee	\$637.00	\$44.63gst
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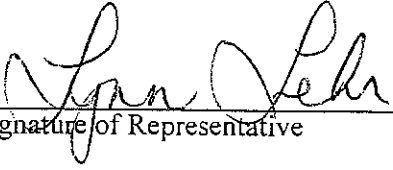
Land Use Rent:

Seismic (\$25.50/line-km for 581 km)	\$14815.50	\$1037.09gst
--------------------------------------	------------	--------------

TOTAL:		\$24,719.72
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Lynn Lehr, Senior Landman  
Name of Representative and Title

Chevron Canada Resources  
Company Name

  
Signature of Representative

Oct. 16/00  
Date

\_\_\_\_\_  
Signature of Land Administrator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Location

\_\_\_\_\_

Issuing ILA Office: Inuvialuit Land Administration  
P.O. Box 290  
Tuktoyaktuk, NT  
X0E 1C0  
Telephone: (867) 977-2202 or (867) 977-2466  
Fax: (867) 977-2467

## Office use only

Application fee	Land use fee	General receipt no.	Date	Class	Permit no.
-----------------	--------------	---------------------	------	-------	------------

To be completed by all applicants

☒ New Application ☐ Amendment

1. Applicant's name and mailing address (full name, no initials)

Chevron Canada Resources  
500 - 5<sup>th</sup> Avenue SW  
Calgary, AB T2P 0L7

Attention: Kevin Williams, Geophysicist

Telephone no. (403) 234-5403

Fax no. (403) 234-5947

2. Head office address

Same as above.

Telephone no. Same as above

Fax no. Same as above

3. Field Supervisor

Rick Calvert  
Advance Party Manager - Geco-Prakla  
Box 2313  
Inuvik, NT X0E 0T0

Radio telephone.

Telephone no.

(867) 777-3303

4. Other personnel (Subcontractor, contractors, company staff, etc.)

Seismic Contractor:

Schlumberger Oilfield Services  
525-3<sup>rd</sup> Avenue S.W.  
Calgary, Alberta T2P 0G4

All others yet to be determined.

5. Qualifications

Refer to Section 21 - Territorial Land Use Regulations.

A (i) ☐ a(ii) ☒ a(iii) ☐ b ☐ c ☐

6. (a) Summary of operation (Describe purpose, nature and location of all activities - refer to Section 22 (2) (b) - Territorial Land Use Regulations. (Use last page of form if additional room is required).

Chevron is proposing to conduct the Mackenzie Delta Inuvik Block 1 & 2 Seismic Program in Winter 2000/2001 using the dynamite explosive technique. Refer to attached Project Description for further details.

(b) Please indicate if a camp is to be set up (Use last page to provide details)

Mobile sleigh camp facilities will move with the program. See Project Description for further details.

7. Summary of potential environmental and resource impacts (Describe the effects of the proposed program on land, water, flora &amp; fauna and related socio-economic areas. (Use separate pages if necessary).

Refer to attached Project Description.

8. Proposed restoration plans (please use last page if required).

Refer to attached Project Description.

9. Other rights, licences or permits related to this permit application (mineral claims, timber permits, water licences, etc.)

A water licence has been applied for from the NWT Water Board as well as a Geophysical Operation Authorization from the National Energy Board and a Class A Land Use Permit from the Inuvialuit Land Administration.

Roads: ☐ Is this to be a pioneered road? ☐ Has the route been laid out or ground truthed? ☐ Has funding been applied for (i.e. RTAP)?

Program will use winter access routes only.

10. Proposed disposal methods

**Garbage:**

All garbage will be incinerated or transported to an approved waste management facility.

**Sewage (Sanitary & Grey Water):**

Mobile sleigh camp is equipped with Incinolet toilets that eliminate sewage waste through incineration. The resulting ash is inert and will be spread out on the ground near the camp locations. Grey water will be steamed off using a grey water steamer. Refer to project description for further details.

Refer to attached Project Description for further details.

11. Equipment (includes drills, pumps, etc.) (Please use last page if required)			
Type & Number	Size	Proposed Use	
3 Ford F350 4x4		Support of proposed program.	
2 Track Foremost 110 Nodwell			
1 Snowmobile			
2 Ambulances			
12 Nodwells			
10 D6D Cats			
10 Transport Units			
1 Recorder			
1 Personnel Carrier Foremost Terraflex			
1 Bell 206 A-Star			
Fuel Sloops			
2 Water Trucks			
12. Fuels - Combustibles			
• Diesel (Tracked Chieftan Fuel Tanker)	(✓)	Number of Containers	Capacity of Containers
• Gasoline	✓	1	36,360 Litres
• Aviation Fuel			
• Propane			
• Other	✓	2 Fuel Sloops	12,000 Gallons each

13. Containment fuel spill contingency plans (Please attach separate contingency plan if necessary)

Refer to attached Project Description.

14. Methods of fuel transfer (To other tanks, vehicles, etc.)

Conventional pumping system.

15. Period of operation (includes time to cover all phases of project work applied for, including restoration)

Planning	August - ongoing
Pre Survey Scouting	September - December 2000
Mobilization	September - December 2000
Camp Set Up	December 2000
Survey Control	December 2000
Survey	January - February 2001
Drilling	January - March 2001
Recording	February - May 2001
Final Clean Up	March - August 2001

16. Period of permit (up to two years, with maximum of one year extension)	Start date	Completion date
	2 years	January 2001

17. Location of activities by map co-ordinates (attached maps and sketches)

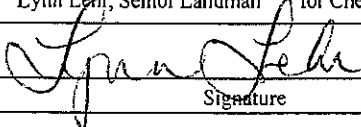
Min Lat Deg 68°	Min Lat Min 30'	Max Lat Deg 69°	Max Lat Min 09'
Min Long Deg 133°	Min Long Min 42'	Max Long Deg 135°	Max Long Min 09'

Refer to Project Description.

18. Applicant

Print name in full

Lynn Lehr, Senior Landman for Chevron Canada Resources

  
Signature

Oct. 16/00  
Date

19. Fees

☒ Class A \$150.00

☐ Class B \$150.00

Land use fees:

57 Hectare @ \$50.00

\$2,850.00

\$150.00

Total Application and Land Use Fees

\$3,000.00

# GEOPHYSICAL OPERATION AUTHORIZATION

Applicant: Chevron Canada Resources

Operating Licence Number: 951

Land Use Permit Number: Applied for October 22, 2000

Geographical Area: Latitude: 68°30'00" - 69°09'00" N

Longitude: 133°42'00" - 135°09'00" W

Grids or NTS Map Sheets: 107B

Interests: Inuvik Block 1 and 2, EL 385 and EL 395 overlaps

Description of Operation: Mackenzie Delta Inuvik Block 1 & 2 Winter seismic program using dynamite explosive techniques.

## SPECIFICS OF OPERATION

Exclusive ☒

For Chevron

Non-Exclusive ☐

Participation ☐

Purchase / Reprocessing ☐

Proposed Commencement Date: January 2001

Proposed Completion Date: April/May 2001

Number of Personnel: Approximately 75

Number of Crews: 1

Data Acquisition Equipment Sercel 408 recording equipment

Estimated Kilometres: 650 linear kilometres of line

Vessel / Aircraft Names / Registration Numbers: To be determined.

Energy Source: Dynamite

Depth: 22 metres on land and up to 16 metres below lakebed as recommended by Fisheries & Oceans Canada.

Charge Size: 20 kg on land, and equal to or less than 10 kg on waterbodies as recommended by DFO.

Source Parameters: Every 80 m

Detector Parameters: Every 20 m

## OPERATIONAL CONTACT

Name: Schlumberger Oilfield Services Bob Dreaver - Project Manager, Geco-Prakla

Address: 525-3rd Avenue S.W. Calgary, Alberta T2P 0G4

Telephone: (403) 509-4486

Cellular: (403) 620-4327

Facsimile: (403) 509-4217

## ESTIMATED EXPENDITURES

	On-Interest	Off-Interest
Field Work:	<u>\$17,500,000</u>	<u>\$0</u>
Data Processing:	<u>\$300,000</u>	<u>\$0</u>
Interpretation / Laboratory:	<u>\$200,00</u>	<u>\$0</u>

## CONTRACTORS

Data Acquisition: Schlumberger Oilfield Services

Data Processing: Schlumberger Oilfield Services

Data Interpretation / Laboratory Studies: Chevron Canada Resources

*"I certify that I have complied with the notification, permitting and/or licencing requirements of all federal / territorial legislation that are applicable to this operation."*

Signed: 

*Responsible Officer*

Title: Senior Landman

Name: Lynn Lehr

Date: Oct. 16/00

Company: Chevron Canada Resources

Address: 500 - 5th Avenue S.W.

Telephone: (403) 234-5179

## AUTHORIZATION

*This operation is authorized under Section 5 of the Canada Oil and Gas Operations Act and is subject to the terms and conditions attached to this Authorization*

Signed: \_\_\_\_\_

*Chief Conservation Officer*

Date: \_\_\_\_\_

## APPLICATION FOR LICENCE, AMENDMENT OF LICENCE, OR RENEWAL OF LICENCE

[9]

## SCHEDULE III – Concluded

## APPLICATION FOR LICENCE, AMENDMENT OF LICENCE, OR RENEWAL OF LICENCE - Concluded

## 8. Waste Deposited (quantity, quality, treatment and disposal)

The mobile sleigh camp is equipped with Incinolet toilets that eliminate sewage waste through incineration. The resulting ash is inert and will be spread out on the ground near the camp locations. Grey water that includes only shower water, wash water and kitchen water will be steamed off using a grey water steamer.

## 9. Other Persons or Properties Affected By This Undertaking (give name, mailing address and location; attach list if necessary)

Cabin owners in the vicinity of the camp will be contacted prior to operation commencement. Cabin owners will be determined through regional Hunters and Trappers Committee. Community consultations were conducted. Refer to attached Project Description.

## 10. Predicted Environmental Impacts of Undertaking and Proposed Mitigation

Refer to attached Project Description.

## 11. Contractor and Sub-Contractors (names, addresses and functions)

Geco-Prakla, A Division of Schlumberger Oilfield Services (Seismic Contractor)  
525 – 3<sup>rd</sup> Avenue SW  
Calgary, AB T2P 0G4

## 12. Studies Undertaken to Date (attach list if necessary)

Inuvialuit Environmental Inc. has completed an Environmental Assessment for the project. Refer to attached project description.

A previous EA of a winter seismic program conducted for Petro-Canada during winter 1999/2000. An EA was also completed for the Ikhil Gas Development. Both reports are on file with both the EISC and the NEB.

## 13. Proposed Time Schedule

Planning: August – ongoing  
Pre-survey Scouting: September – December 2000  
Mobilization: September – December 2000  
Camp Set-up: December 2000

Survey Control: December 2000  
Survey: January – February 2001  
Drilling: January – March 2001  
Recording: February – May 2001  
Final Clean-up: March – August 2001

Start date January 2001

Completion date April/May 2001

Lyn Lehr  
NAME (Print)

Senior Landman  
TITLE (Print)

SIGNATURE

DATE

FOR OFFICE USE ONLY

APPLICATION FEE	Amount: \$	Receipt No.:
WATER USE DEPOSIT	Amount: \$	Receipt No.:

**NORTHWEST TERRITORIES WATER BOARD**

**ONSHORE OIL AND GAS  
EXPLORATION DRILLING  
QUESTIONNAIRE**

**FOR**

**WATER LICENCE APPLICATIONS**

**Prepared by:  
Department of Indian Affairs and Northern Development  
Water Resources Division  
August 1999  
Version 5.07**

## **Introduction**

The purpose of this questionnaire is to solicit supplemental information from an applicant to support their application for a water licence (or renewal). It is anticipated that the completion of this questionnaire will reduce delays arising from the Northwest Territories Water Board having to solicit additional information after an application has already been submitted. This information will also be useful during the environmental assessment and screening of your application, which must be undertaken prior to development and approval of a water licence.

The applicant should complete the questionnaire to the best of his/her ability, recognizing that some questions may not be relevant to the project under consideration. For questions that do not relate to his/her operation, the applicant is requested to indicate "N/A" (Not Applicable).

If any questions arise while completing the questionnaire, the applicant may wish to contact the Northwest Territories Water Board at (867) 669-2772. If your question is that of a technical nature please contact the Regulatory Approvals Section of the Water Resources Division, Department of Indian Affairs and Northern Development (INAC), at (867) 669-2651.

Chairman,  
Northwest Territories Water Board

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<b>5. LIST OF ATTACHMENTS</b>	<b>8</b>

**If space is insufficient for any of the responses on this questionnaire, use the back of the sheet or attachments.**

**List attachments in Appendix 1.**

**Print or type your responses.**

## SECTION 1:

### PRELIMINARY SITE ASSESSMENT

DATE: October 20, 2000

#### 1.1 APPLICANT

COMPANY NAME: Chevron Canada Resources

ADDRESS: 500-5<sup>th</sup> Avenue S.W.

Calgary, Alberta

T2P 0L7

PROPERTY NAME/EXPLORTION LIC. #: #385 and #395

CLOSEST COMMUNITY: Inuvik

LATITUDE/LONGITUDE OF WELL CENTRE (Degrees, minutes, seconds):    Project area:  
Latitude 68°30' - 69°09'N                      Longitude 133°42' - 135°09'W

#### 1.2 PRIMARY COMPANY CONTACT:

NAME: Kevin Williams

TITLE: Geophysicist

CONTACT NUMBER: (403) 234-5403

ALTERNATE CONTACT NUMBERS: \_\_\_\_\_

#### 1.3 FIELD CONTACT:

NAME (If known): Bob Dreaver

TITLE (If known): Project Manager, Geco-Prakla

CONTACT NUMBER: (403) 509-4486

#### 1.4 INDICATE THE STATUS OF THIS APPLICATION:

NEW APPLICATION    ☒                      RENEWAL    ☐

IF RENEWAL, INCLUDE LICENCE NUMBER: \_\_\_\_\_

**1.5 SITE HISTORY**

INDICATE IF THIS SITE CONTAINS ANY KNOWN:

FORMER WELL SITES	_____
WASTE DUMPS	_____
FUEL AND CHEMICAL STORAGE AREAS	_____
SUMP AREAS	_____
WASTE WATER DISCHARGE LOCTIONS	_____

**DESCRIBE SITES AND REFERENCE THEM ON THE MAP IN QUESTION 1.6**

**1.6 ATTACH MAPS DRAWN TO SCALE SHOWING LOCATIONS OF EXISITNG AND PROPOSED:**

CAMP FACILITIES,  
WELL SITE(S),  
SUMPS,  
WATER SOURCES,  
FUEL AND CHEMICAL STORAGE FACILITIES,  
DRILLING MUD STORAGE FACILITIES,  
DRAINAGE CONTROLS,  
TRANSPORATION ROUTES (SEASONAL AND ALL WEATHER)\*,  
ELEVATION CONTOURS,  
LOCATIONS OF WATERBODIES  
DRAINAGE PATTERNS FOR WELL AND CAMP SITES.

**\* Clearly identify crossings over water courses greater than 5 mat ordinary high water mark.**

See attached Project Description.

**1.7 DESCRIBE THE PROPOSED OR CURRENT METHOD OF FRESHWATER WITHDRAWL, THE TYPE AND OPERATING CAPACITY OF THE PUMPS USED AND THE INTAKE SCREEN SIZE.**

Water for ice access, building snow ramps, and possibly a supplementary camp source, will  
be obtained from channels of the Mackenzie River. Water withdrawal rates are not expected  
to exceed 100 m<sup>3</sup>/day. Intake hoses will be screened with 1.3 cm (0.5") wire mesh.

- 1.8 ESTIMATE MAXIMUM DRAW DOWN AND RECHARGE CAPABILITY OF THE RIVER OR LAKE FROM WHICH FRESH WATER WILL BE DRAWN. QUOTE DRAW DOWN IN CENTIMETRES, OR, STATE PERCENTAGE OF FLOW WITHDRAWN.**

Less than 1% draw down.

- 1.9 INDICATE IF PERMAFROST IS EXPECTED TO BE ENCOUNTERED UNDER:**

CAMP FACILITIES	<u>X</u>
WELL SITE	<u>N/A</u>
ACCESS ROUTES	<u>X</u>
SUMPS	<u>N/A</u>
OTHER	<u>N/A</u>

- 1.10 INDICATE ANY POTENTIAL FOR ENCOUNTERING ARTESIAN AQUIFERS OR LOST CIRCULATION WITHIN THE SURFACE HOLE (TO CASING DEPTH)**

N/A

- 1.11 ATTACH A DESCRIPTION OF THE SURFICIAL GEOLOGIC AND HYDRO-GEOLOGIC CONDITIONS IN THE IMMEDIATE VICINITY OF THE WELLSITE**

See attached Project Description.

## SECTION 2:

### WATER USE AND WASTE DISPOSAL

- 2.1 OUTLINE ALL WATER USAGE IN THE DRILL PROGRAM, CAMP FACILITIES, AND ROAD CONSTRUCTION. INDICATE THE SOURCE AND VOLUME OF WATER FOR EACH USE.

	Source	Use	Average Volume (m <sup>3</sup> /day)
1.	Mackenzie River	ice access	100m <sup>3</sup> /day
2.	Mackenzie River	building snow ramps	100m <sup>3</sup> /day
3.	Mackenzie River	possible supplementary camp source	100m <sup>3</sup> /day
4.			
TOTAL:			100m <sup>3</sup> /day

- 2.2 WILL DRILLING WASTES CONTAIN DETRIMENTAL SUBSTANCES INCLUDING, BUT NOT LIMITED TO, OIL BASED OR INVERT MUDS AND HIGH SALINITY FLUIDS?

YES \_\_\_\_\_ NO   X  

IF YES, INDICATE SUBSTANCES:

---

- 2.3 INDICATE THE TOTAL ESTIMATED VOLUME OF DRILLING WASTES

\_\_\_\_\_ CUBIC METRES

- 2.4 INDICATE METHODS FOR DISPOSAL OF DRILLING WASTES.

\_\_\_\_\_ SUMP  
  X   DOWN HOLE (REQUIRES NEB APPROVAL) – DRILL CUTTINGS  
  X   ON-SITE TREATMENT (PROVIDE PLAN)  
\_\_\_\_\_ OFF-SITE (GIVE LOCATION AND METHOD OF DISPOSAL)

See project description.

- 2.5 IF A SUMP IS BEING USED, ATTACH THE FOLLOWING INFORMATION

SCALE DRAWINGS AND DESIGN OF SUMPS,  
CAPACITY IN CUBIC METRES,  
BERM EROSION PROTECTION,  
SOIL PERMEABILITY AND TYPE  
RECYCLING/RECLAIMING WATERS,  
SURFACE DRAINAGE CONTROLS,  
ABANDONMENT PROCEDURES.

**2.6 WILL A CAMP BE PROVIDED?**

YES

☒

NO

☐

**2.7 IF YES, THEN INDICATE THE CAPACITY AND THE EXPECTED MAXIMUM NUMBER OF PERSONS THAT WILL BE ACCOMMODATED.**

CAPACITY

71

PERSONS

MAXIMUM ACCOMMODATED

85

PERSONS

## **SECTION 3:**

### **CONTINGENCY, ABANDONMENT AND RESTORATION PLANNING**

- 3.1 ATTACH THE PROPOSED OR EXISTING CONTINGENCY PLAN WHICH DESCRIBES COURSE OF ACTION, MITIGATIVE MEASURES AND EQUIPMENT AVAILABLE FOR USE IN THE EVENT OF SYSTEM FAILURES AND SPILLS OF HAZARDOUS MATERIALS (IN COMPLIANCE WITH NWT WATER BOARD GUIDELINES FOR CONTINGENCY PLANNING, 1987).**

See attached Project Description.

- 3.2 ATTACH AN INVENTORY OF HAZARDOUS MATERIALS ON THE PROPERTY (AS DEFINED UNDER TRANSPORTATION OF DANGEROUS GOOD REGULATIONS).**

See attached Project Description.

- 3.3 ATTACH AN OUTLINE OF PLANNED ABANDONMENT AND RESTORATION PROCEDURES.**

See attached Project Description.

## SECTION 4:

### ENVIRONMENTAL ASSESSMENT AND SCREENING

Your application and other project details, such as this questionnaire, will be sent out for review by local aboriginal and public groups as well as territorial and federal government agencies. Their comments regarding the significance of project impacts are considered before a decision is made to allow the project to proceed. Because formal assessment and screening of water licences was only initiated in about 1989, applicants will find that this process may be required even if the project has been built and in operation for several years. However, if your project has been previously screened a further assessment may not be required, or a more limited process may be used. This will depend on individual circumstances, including the stage of the project. Some projects may need a higher level of review or submission of more information before being screened.

- 4.1 HAS THIS PROJECT EVER UNDERGONE AN INITIAL ENVIRONMENTAL ASSESSMENT, INCLUDING PREVIOUS OWNERS?

YES ☒ NO ☐

IF YES, BY WHOM / WHEN: EA by Inuvialuit Environmental Inc., October 2000  
See attached Project Description.

- 4.2 HAS BASELINE DATA BEEN COLLECTED FOR THE MAIN WATER BODIES IN THE AREA?

YES ☒ NO ☐

IF YES, ATTACH DATA.  
See attached Project Description.

- 4.3 HAS BASELINE DATA BEEN COLLECTED AND EVALUATED WITH RESPECT TO THE BIOPHYSICAL COMPONENTS OF THE ENVIRONMENT POTENTIALLY AFFECTED BY THE PROJECT (WILDLIFE, SOILS, AIR QUALITY).

YES ☒ NO ☐

IF YES, ATTACH DATA.  
See attached Project Description.

- 4.4 ATTACH A DESCRIPTION OF ALL PROPOSED AND EXISTING ENVIRONMENTAL MONITORING PROGRAMS.

See attached Project Description.

- 4.5 HAS A COMMUNITY CONSULTATION PROGRAM BEEN INITIATED?

YES ☒ NO ☐

IF YES, PROVIDE DETAILS OF THE PROGRAM.  
See attached Project Description.

## SECTION 5:

### LIST OF ATTACHMENTS

Reference to Question #	Title	Number of pages
1.6	Maps	See attached project description
1.11	Surficial geologic and hydrogeologic conditions	See attached project description
2.4	Disposal of drilling wastes	See attached project description
3.1	Contingency Plans	See attached project description
3.2	Hazardous Materials	See attached project description
3.3	Abandonment and Restoration	See attached project description
Section 4	Environmental Assessment and Screening	See attached project description