# ENVIRONMENTAL PROCEDURE PLAN FOR EXPLORATION AND REMOTE CAMPS

## Committee Bay Resources Ltd.

December 2003

## ENVIRONMENTAL PROCEDURE PLAN FOR EXPLORATION AND REMOTE CAMPS

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The following Environmental Principles have been developed by Committee Bay Resources Ltd.

These principles form the guiding base for the Environmental Operating Procedures that apply to all of our exploration activities within the Nunavut Territory.

- Environmental management is an integral component of our exploration programs and is the responsibility of all program personnel.
- Any potential environmental impact from our activities will be assessed and minimized.
- Environmental standards and quality of work will be continuously improved and maintained in conjunction with effective exploration.
- All relevant government laws and regulations for the protection of the environment will be known and complied with.
- All contractors and employees will be informed of our Environmental Policy, Environmental Principles, Environmental Management Standards, Environmental Operating Procedures and their designated environmental responsibilities.
- Effective communication and a close liaison will be maintained with nearby communities and regulatory authorities.
- Exploration activities will be conducted with due regard for the protection of wildlife, flora and sites of natural, cultural and historical significance.
- Programs will be established to recycle and conserve resources.

## Environmental Operating Procedures

## INTRODUCTION

Committee Bay Resources Ltd. is committed to maintaining high standards in environmental practices.

Exploration activities generally have a very low degree of impact upon the environment. We work in remote and relatively pristine areas, with particularly sensitive ecosystems and challenging environmental and climactic conditions. We must be diligent and innovative in the management of our activities to ensure minimal impact to the environment.

## 1. PLANNING

Exploration programs will be carefully planned to minimize disturbance and effectively manage environmental risks.

### Risk Assessment

The activities associated with the proposed exploration program will be assessed for environmental risks and impacts. Variables such as topography, climate, fauna, vegetation and stakeholders must be considered. Procedures and/or processes will be implemented to manage and mitigate the identified environmental risks and impacts.

### Emergency Preparedness

A Spill Contingency Plan has been established for exploration programs and remote camp locations. The plan includes contingencies for probable environmental emergencies as a result of natural

occurrences and/or as a result of program activities.

**Expenditure / Budget**
Activities such as site clearance surveys, environmental training, and rehabilitation will be included in the program budget. These are a genuine program costs and must be treated as such. Good environmental planning and management will minimize environmental damage.

**Due Diligence**
The environmental status of land will be reviewed prior to acquisition and any potential environmental liabilities recognized. This may involve discussions with landholders or joint venture partners, on-site inspections, reviewing maps, photographs arid previous reports of the area. This process will be continued during the life of the program and will include mapping or photographing of possible sensitive sites.

**Legislative Requirements**
All relevant legislation will be known, communicated and complied with.

**Approvals**
Any stakeholders of the land that will be explored will be notified. Relevant approvals from stakeholders and regulatory authorities will be obtained before exploration commences.

**Responsibilities and Accountabilities**
Environmental responsibilities will be assigned and communicated to all members of the program team. This includes employees, contractors and sub-contractors. Contractor responsibilities will be outlined in the environmental schedule of the contract. The primary responsibility for protecting the environment from impacts related to program activities is assigned to the Program Supervisor.

**Induction and Training**
Field employees and contractors will undergo an environmental induction that includes relevant regulations.

**Contractors**
Preference will be given to contractors who display high standards of environmental management and performance.

**Closure Planning**
The short term and long term environmental implications of our activities must be considered and plans developed to eliminate or mitigate these impacts upon program closure.

## 2. STAKEHOLDERS

A stakeholder is an individual or group (i.e. landholder, local group, regulatory authority, community, etc.) concerned with or potentially affected by our exploration activities. Stakeholders will be identified for each program. Regular communication will be maintained with these stakeholders for the duration of the program, and afterwards in some cases. Any agreement made with stakeholders should be documented.

**Cultural and Heritage Issues**
Cultural objects, remains and sites of spiritual, archaeological, anthropological or historical significance will be protected.

- Surveys may be required to identify sites of sacred, heritage and cultural significance. The results of these surveys must be documented.
- Any additional sites encountered during exploration will be left undisturbed and reported to

the appropriate authority.

- Any discussions with local communities or traditional owners should be documented.

**Archeology:**

Six Archeological Sites are listed with the Archeological Survey, Ottawa on NTS 56 J, K, O and P. These sites and some information on them are listed below. None are near areas we expect to perform exploration activities.

| Site | Longitude/Latitude/NTS | Description |
|---|---|---|
| MaJh-1 | 90.528/66.034/56J2 | 5 tent rings, 2 less substantial rings and 2 recent rings as well as 12 caches, a C shaped feature and a three slab hearth set against a large boulder. Features observed just above sandy beach and are overgrown with vegetation suggesting they are old. At the west end of the west arm of Qaurnak Lake, on an overgrown outcrop. |
| MaJh-2 | 90.458/66.034/56J1 | Consists of 9 strong tent rings, 1 cache, 1 C-shaped storage area next to a bedrock outcrop, 1 small, circular stone feature and 2 kayak storage units. Most features are overgrown with lichen, grass and heather suggesting they are old. On the west side of the mouth of the north arm of Qaurnk Lake. |
| MaJh-3 | 90.463/66.056/56J1 | Consists of 4 tent rings and 1 cache, as well as a stone marker on top of the bedrock prominence that dominates the peninsula. On a prominent peninsula protruding from the west side of the north arm of Qaurnak Lake. |
| MaJh-4 | 90.476/66.059/56J1 | Consists of six relatively recent tent rings observed on the gravel beach. Observed from the air. At the mouth of a stream adjacent to the base of a prominent peninsula protruding from the west side of the north arm of Qaurnak Lake. |
| MaJh-5 | 90.481/66.074/56J1 | Consists of two tent rings observed from the air. On the west side of the north arm of Qaurnak Lake, just below its head. |

| | | |
|---|---|---|
| MbJo-1 | 92.998/66.207/56K | Consists of two tent rings observed from the air, plotted approximately. At the south end of an esker situated approximately 10 km to the northwest of the north end of Laughland Lake. |

The Nunavut Atlas shows fishing and camping sites along the Hayes River and in the Walker Lakes, the Laughland Lake and Lake 975 area, and in the Ellice Hills area.

## 3. FLORA AND FAUNA

All reasonable care will be taken to avoid interference with rare or endangered species of native flora or fauna.

**Flora**

- All reasonable care will be taken to avoid unnecessary impacts to flora and to mitigate required impacts.

**Fauna**

- Hunting is prohibited.
- Firearms and domestic animals are not permitted unless special permission has been obtained from the Exploration Manager.

The Nunavut Atlas shows that the area covered by the license receives few hunting, trapping or fishing parties. Hunters from Pelly Bay used to travel to the Curtis and Stewart Lakes and to the Walker Lake and Hayes River areas in winter to hunt caribou. Several hunters from Pelly Bay are known to travel by snowmobile to the Curtis and Stewart lakes vicinity in April to hunt caribou. Hunters from Gjoa Haven are also known to travel to the NW part of the license area to hunt caribou.

## 4. AIRBORNE OPERATIONS

Our exploration activities require airborne support due to the remote locations. Additionally, due to the lack of serviceable airstrips in the region, this support involves aircraft equipped for off-strip operations (float planes, helicopters). These types of aircraft have a minimal potential impact upon the environment. The potential impacts include: petroleum product spill and disturbance of fauna and people from low altitude flying and frequent landings/take-offs. The likelihood of disturbing or disrupting people is considered low due to the remote locations of the activity. All stakeholders will be contacted prior to the commencement of operations. The requests of all stakeholders will be respected.

**Airstrips**

Only existing airstrips will be used.

**Helipads**

Helicopter landings and take-offs have little impact upon the flora or ground surface. However, helicopters require an area clear of obstructions that allows for safe maneuverability of the aircraft. The size of this area is dependant upon the aircraft type. The vast majority of our operations to date have been north of the tree line where the clearing of vegetation for landing site preparation is unnecessary.

- Landing sites will be selected, whenever possible that have a competent ground surface and are naturally free of vegetation or marginally covered.

- Landing sites that are designated for repetitive use which are blanketed by ground cover vegetation must have a helipad constructed.
- Helipads will be constructed in such a way as to minimize surface contact with vegetation.
- Helipads will be constructed using dimensional lumber unless trees that have been cleared for the landing site are suitable for use.
- Vegetation clearing will be conducted as per the relevant section under "Land Disturbance" of this document.

**Fuel**

Aviation fuel at exploration operations is contained in 205 litre steel drums for ease of handling. These drums are stored horizontally on the, ground with the bungs positioned at the mid-way point. This storage method prevents contact of surface water with the bungs and possible contamination of the fuel and keeps the bung seals submerged in fuel, which prevents the seals from drying out and leaking.

- Fuel drums will be stored at a distance of no less than 100 metres from any surface water source (e.g. lake, stream, pond, etc.)
- Remote fuel storage locations (e.g. outside of camp) will be plotted on a suitable topographic map and the GPS positions will be recorded. An updated inventory of the fuel used will be maintained.
- Regular visual inspections will be conducted of all fuel caches
- Empty or otherwise no longer required fuel drums will be retrieved from all locations. Empty drums will be returned to the fuel supplier for recycling.
- Full fuel drums will not be stored remotely for more than one year.
- Fuel storage locations will have a suitable spill response kit.
- Refuelling locations will have a suitable fire extinguisher.
- Spill prevention measures will be implemented prior to refuelling (e.g. drip pan).

## 5. LAND DISTURBANCE

All necessary permits and permissions will be obtained prior to conducting any land disturbance. Great care will be taken to avoid and/or minimize land disturbance such as earthmoving and vegetation clearing. When clearing is unavoidable, it must be carried out in a manner that does not promote erosion. Whenever possible, areas that are naturally free of vegetation will be selected for logistical support sites (e.g. campsite, heli-pad). Operations requiring vehicle access will be conducted during the winter-spring period in order to take advantage of ice-covered waterways and frozen snow-covered ground to prevent disturbance of the soil and ground cover vegetation.

**Supervision**

Earth moving and clearing activities will be supervised at all times by a Committee Bay Resources Ltd. representative who should clearly define the area to be disturbed using temporary markers.

**Earthmoving**

Earthmoving is limited to the construction of small pits and sumps for the collection and disposal of benign waste (e.g. ashes/coals from burnt garbage, drill fluids, greywater and sewage).

Topsoil (or surface material useful for regeneration or re-vegetation) will be removed and stockpiled separately from subsoil. Topsoil should be returned as soon as possible (preferably within six months) to maintain seed viability, nutrient quality and microbial activity.

**Clearing Vegetation for Vehicle Access**

Since all operations requiring vehicle access will be conducted during the winter-spring period, the only vegetation clearing that may be necessary involves the removal of trees. This should only be

done if access cannot be obtained via frozen waterways, natural and/or existing clearings and existing tracks.

- Keep the track width to a minimum.
- Weave around large trees and avoid creating long straight stretches.
- Use naturally cleared areas and consider the thickness of vegetation.
- Tracks should be positioned along ridges.
- Whenever possible, avoid clearing on steep slopes, side hills and drainage banks.

**Clearing Vegetation in General**

- Determine the exact requirements to avoid unnecessary and excessive clearing.
- Lop branches in preference to felling trees.
- Leave felled timber in a manner acceptable to the authorities. Otherwise, stockpile the cleared vegetation for subsequent re-spreading over the track. This is to protect exposed soil from erosion and to enable seed stocks to regenerate. Do not place felled vegetation where it will alter or disturb natural drainage channels.

**Geochemical Sampling**

When taking soil/ till samples, areas naturally free of vegetation (frost boils) will be selected whenever possible. When this is not possible the organic layer and any topsoil should be put to one side and replaced after the sample is collected.

## 6. TRAVERSING

**Gridding**

- Foot accessible grid lines for geophysics, geochemistry and geology will be at minimal width.
- No large trees are to be felled. Branches will be cut to allow foot access and line of sight.
- The blazing of trees will be avoided unless required by government regulations.
- Do not leave pointed stakes that will endanger humans or animals.
- Wooden survey pegs will be used in preference to steel.
- Steel markers will only be used as permanent survey points and where possible will be positioned where they will not cause injury to animals or people, or interfere with vehicle movement.
- Care will be taken to ensure all pegs are removed at the completion of exploration.
- Flagging tape and spray paint will be used sparingly. If possible, biodegradable items will be used.
- Hip-chain line will be broken after crossing a track or trail and care taken to ensure that the line has fallen clear of the right of way.

**EM Induction Surveys**

Wires will be watched, if practicable, during surveys to avoid endangering animals or people in the area. If potential exists for other people to be present in the area, warning signs will be erected. At no time are wires or cables to be left unattended.

## 7. DRILLING OPERATIONS

Contracts for exploration drilling services will stipulate adherence to the environmental component of the Committee Bay Resources Ltd. Responsibly Policy and these Environmental Procedures and include penalties for non-compliance.

### Drill Sites

- Select sites to minimize damage to the environment.
- Sites should be as small as practicable but include enough area for fire protection.
- Avoid locating drill sites on steep slopes.
- Prepare sites as per the guidelines in section 5 (Land Disturbance).

### Sumps

- Natural depressions will be used in preference to excavation.
- Ensure the number and size of sumps is adequate to contain all potential drilling fluids.
- Sumps should be positioned down slope of drill collars to ensure run-off flows into the sump.
- If excavation is required, the organic layer and any topsoil should be stockpiled separately for replacement during backfilling.
- Excavated sumps should be fenced or barricaded until they have been backfilled.
- Excavated sumps should be allowed to dry out (by evaporation) prior to burial.

### Drilling Fluids

- Bio-degradable drilling fluids will be used at all times where possible.
- Drilling fluids will be contained in sumps or by another suitable and approved method (e.g. tank).
- Fluids will be disposed of according to regulations.

### Groundwater

- If encountered, artesian water flow will be controlled to prevent erosion of the ground surface and the silting of watercourses.

### Waste

- Receptacles will be provided for rubbish at drill sites. No waste of any description will litter the site.
- Food waste will be removed from drill sites daily.
- Waste will be disposed of according to regulations and land use permits.

### Reverse Circulation/Percussion

When handling drill samples (cuttings), care will be taken to prevent mixing of sub-soil with topsoil if they are significantly different from each other. A tarp or similar device should be placed around the hole to contain drill cuttings and to prevent contact with the ground surface. Water injection should be used to control dust. On completion of the hole, all cuttings not required for analysis or storage will be poured back into the hole or otherwise disposed of according to regulations.

### Drilling on Ice

Drilling fluids and cuttings will be contained to prevent contact with the ice surface or water. A method to clean up an accidental spill of this material will be devised and the required equipment made available prior to the commencement of operations. Fluids and/or cuttings will be disposed of on land in a natural depression or excavated sump or otherwise in accordance with the land use permit.

**Spill Prevention**

Methods will be implemented for the handling and care of petroleum products, drilling additives, etc. so as to prevent accidental spillage of these materials. Drip pans will be placed under leaking equipment and, if practicable, the leaks will be repaired as soon as possible.

**Core Cutting**

Wastewater from core sawing will be controlled to prevent erosion of the ground surface and the silting of watercourses. Where practicable, it should be contained and recycled through the core saw,

Cuttings from sulphide-rich core have the potential to acidify any soils with which they contact. All cuttings and unwanted core off-cuts or pieces will be contained and disposed of by burial or otherwise disposed of according to regulations.

**Capping of Drill Holes**

- All holes will be temporarily plugged immediately upon completion, using whatever safe means available (e.g. rocks), to eliminate any hazard to wildlife.
- Prior to, or on completion of the program, all open holes will be plugged with a proper down-hole plug and the area above the plug filled in.
- If later relocation of the hole is not required, casing will be removed whenever possible.
- Remaining casing will be cut off to ground level or below and capped.
- Any excess drill chips will be poured back down the hole.
- Any holes with flowing water will be permanently sealed unless written instruction from the relevant authority indicates otherwise.

**Drill Safety**

All drill personnel and contractors will be basic CPR trained. The Committee Bay Resources Ltd. Safety officer will be responsible for all emergency and safety operations at a drill site. Temporary emergency shelters will be used at each drill site equipped with cots, food and a heat source. All drill operations will be helicopter supported at all times and radio contact with the main camp will be maintained via helicopter radio, satellite phones or hand-held two way radios.

## 8. CAMP SITE SELECTION AND DESIGN

To prevent disruption to flora and fauna, camps, wherever possible, will be located in naturally clear areas, not on migration routes (e.g. esker trails) and at least 50 metres from surface water.

To mitigate potential impacts, decisions regarding site selection and the type of structures and facilities to be established must consider the following criteria:

- Number of people to be accommodated.
- Duration of the camp.
- Activities to be undertaken at the camp.
- The time of year.
- Land use permit stipulations.

**Fire Protection and Prevention**

- Fire regulations will be observed at all times and permits obtained if necessary.
- The use of open fires will be avoided. Fires should be only be used for general garbage disposal and will be contained in an excavated pit or in a steel container, such as an empty fuel drum. Embers should be buried or transported from site to an approved landfill location.
- Personnel will be advised that disposing of cigarettes onto the ground is prohibited.

- Additional precautions such as prohibiting smoking and open flames will be implemented for areas of greater risk.

## 9. WATER MANAGEMENT

Precautions will be taken throughout our operations to prevent direct or indirect pollution of watercourses.

- Used water will be contained in excavated sumps or natural depressions. Water flow will be controlled to prevent erosion of the ground surface and the silting of watercourses.
- Proposed potable water should be tested for water quality.
- Regular water monitoring should be considered for areas of advanced exploration or semi-permanent camps.

## 10. HAZARDOUS MATERIALS

Whenever possible, the use of hazardous materials will be avoided. Other methods or non-hazardous substitutes will be employed.

- Exploration sites will have procedures in place for the storage, handling and disposal of hazardous materials.
- Whenever a substance is taken from its primary container and placed into a secondary container, the secondary container will be adequately labeled as to its contents.
- Material Safety Data Sheets (MSDS's) will be available for all hazardous materials on site.
- Fuels, oils and chemicals must be properly contained and stored at a minimum distance of 130 metres away from surface wafer unless expressly authorized by a land use permit or in writing by an inspector.
- Bulk tanks of fuel will be equipped with secondary containment that is capable of holding 110% of the primary tank.
- Flammable materials will be stored in cleared areas or in a metal storage cabinet that is segregated from combustible material.
- Disposal of hazardous materials will occur off-site at an authorized facility.

**Spill Response**

- Spills will be cleaned up promptly.
- All spills will be reported internally to the appropriate company representatives.
- All governmental reporting requirements will be adhered to.
- Spill kits or absorbent material will be available at all fuel storage locations and remote areas of significant machinery activity (e.g. drill-sites, road building).

The following responses are suitable for fuel/petroleum product spills in different environmental media:

**Spills on Land (gravel, rock, soil and vegetation)**

- Trench or ditch to intercept or contain flow of fuel or petroleum products on land, where feasible (loose sand, gravel and surface layers of organic materials are amenable to trenching/ditching; trenching in rocky substrates is typically impractical and impossible).
- Construct a soil berm down slope of the spill. Use of synthetic, impervious sheeting can also be used to act as a barrier.
- Recover spills through manual or mechanical means including shovels, heavy equipment and pumps.
- Absorb petroleum residue with synthetic absorbent pad materials.

- Recover spilled and contaminated material, including soil and vegetation.
- Transport contaminated material to approved disposal or recovery site. Equipment used will depend on the magnitude and location of the spill.
- Where safe, disposal can be done through controlled in-situ combustion with the approval of government authorities and fire/safety consultants.
- Land based disposal is only authorized with the approval of government authorities.

**Spills on Snow**

- Trench or ditch to intercept or contain flow of fuel or petroleum products on snow, where feasible (ice and snow are amenable to trenching/ditching)
- Compact the snow around the outside perimeter of the spill area.
- Construct a dike or dam out of snow, either manually with shovels or with heavy equipment such as graders and dozers where available.
- If feasible, use synthetic liners to provide an impervious barrier at the spill site.
- Locate the low point of the spill area and clear channels in the snow, directed away from waterways, to allow non-absorbed material to flow into the low point.
- Once collected in the low area, options include shoveling spilled material into containers, picking up with mobile heavy equipment; pumping liquids into tanker trucks or using vacuum truck to pick up material,
- Where safe, disposal can be done through in-situ combustion with approval from government authorities,
- Liquid oil wastes, oil contaminated snow and debris and oil residues left after controlled, in-situ burning will be picked up and disposed of at a land disposal site approved by government authorities and fire/safety consultants.
- Transport contaminated material to approved disposal site. Equipment used will depend on the magnitude and location of the spill.

**Spills on Ice**

- Contain material spill using methods described above for snow if feasible and/or mechanical recovery with heavy equipment.
- Prevent fuel/petroleum products from penetrating ice and entering watercourses.
- Remove contaminated material, including snow/ice as soon as possible.
- Containment of fuel/petroleum products under ice surface is difficult given the ice thickness and winter conditions. However, if the materials get under ice, determine area where the fuel/petroleum product is located.
- Drill holes through ice using ice auger to locate fuel/petroleum product.
- Once detected, cut slots in the ice using chain saws and remove ice blocks
- Fuel/petroleum products collected in ice slots or holes can be picked via suction hoses connected to portable pump, vacuum truck or standby tanker. Care should be taken to prevent the end of the suction hose clogging up with snow, ice or debris.
- Fuel/petroleum products that have collected in ice slots may be disposed of by in-situ burning if sufficient holes are drilled in ice. Once all the holes are drilled, the oil which collects in the holes may be ignited. Consult with fire/safety consultants and government authorities to obtain approval.

**Spills on Water**

- Contain spills on open water immediately to restrict the size and extent of the spill.
- Fuel/petroleum products, which float on water, may be contained through the use of booms, absorbent materials, skimming, and the erection of culverts.
- Deploy containment booms to minimize spill area, although effectiveness of booms may be limited by wind, waves and other factors.
- Use absorbent booms to slowly encircle and absorb spilled material. These absorbents are hydrophobic (absorb hydrocarbons and repel water).

- Once booms arc secured, use skimmers to draw in hydrocarbons and minimal amounts of water. Skimmed material can be pumped through hoses to empty fuel tanks/drums.
- Culverts permit water flow while capturing and collecting fuel along the surface with absorbent materials.
- Chemical methods including dispersants, emulsion — treating agents and shoreline cleaning will be considered.
- Use absorbent pads and similar materials to capture small spills/oily residue on water.

**Other Response Alternatives**

In-situ combustion is a disposal method available for fuels and petroleum products ~ In-situ burning can be initiated by using a large size portable propane torch (tiger torch) to ignite the fuel/petroleum products. Highly flammable products such as gasoline or alcohol, or combustible material such as wood, may be used to promote ignition of the spilled product. The objective is to raise the temperature for sustained combustion of the spilled product.

Precautions need to be taken to ensure safety of personnel. Also, spilled product should be confined to control burning. These include areas where the spilled material has pooled naturally or been contained via dikes, trenches, depressions or ice slots. Prior to any attempts at in-situ burning. Consultation with experts and approval by government authorities are required.

Chemical response methods are also available and may include the use of the following:

- Dispersants
- Emulsions-treating agents
- Visco-elastic agents
- Herding agents
- Solidiflers
- Shoreline cleaning agents

Biological response methods include, nutrient enrichment and natural microbe seeding.

## 11. WASTE MANAGEMENT

**General (domestic and personal) Waste**

All foreign material introduced to an area by employees or contractors will be collected and removed from the site to an approved landfill site unless the land use permit allows for on site disposal. All domestic and personal waste shall be managed in accordance with local health requirements:

General garbage will be incinerated prior to burial unless otherwise contradicted by government regulations. General garbage that is designated for shipment can be incinerated to reduce bulk unless otherwise contradicted by government regulations. Food wastes will not be stored on site; it will be incinerated and buried or shipped off site. Incineration will be conducted within an approved container (e.g. diesel-fired incinerator, modified steel drum). On site disposal of garbage will be avoided during reconnaissance' activities. 'The garbage will be returned to the base of operations for proper disposal. . Food-waste must be removed from remote locations on a daily basis. Food must be removed from remote locations whenever the locations are unoccupied.

Sewage will contained in a pit (latrine) located more than 100 metres away from surface water. Pits will be approximately 3 ft square and 5 ft deep and treated with lime and /or bacterial digestives on a daily basis. The pit will be filled and capped with topsoil upon demobilization of the camps.

Wastewater (greywater) from kitchen or showering facilities will be directed to sumps designed to prevent discharge of particulate material. The sumps will be located more than 100 metres away from surface waters and be approximately 3 ft deep. The sump will be located outside the main shelter and be covered to prevent animals from accessing the pit. Biodegradable soaps and detergents are to be used at all times.

**Recycling**
Recycling programs should be initiated whenever practicable.

## 12. REHABILITATION

All reasonable steps will be undertaken to return the land surface to its' 'original form, and to promote healthy re-vegetation and sustainable natural development. Rehabilitation varies depending on the speed of natural growth. Local land management authorities should be consulted concerning proven and recommended methods for rehabilitation and re-vegetation.

At the completion of exploration in an area, an inspection will be made to assess whether all rubbish has been removed, all drill holes have been capped, excavations have been backfilled. Topsoil replaced and bare lines scarified.

Regardless of location, the following steps are to be taken to aid natural rehabilitation of tracks, drill sites, camp sites, excavations, etc as soon as practicable after exploration is complete:

- Remove ~ rubbish and waste material. Fill in all holes, trenches, and sumps with the stockpiled subsoil and compact it.
- Backfill excavations with the stockpiled subsoil and topsoil.
- Re-contour disturbed topography, particularly natural drainage patterns, as much as possible.
- Contour rip cleared or compacted surfaces to prevent erosion and to trap seeds. Compacted areas should be ripped to a depth of 0.5m where practicable using rippers with a minimum spacing of lm.
- Cap all drill holes.
- Spread topsoil (or surface material useful for regeneration or re-vegetation) over all disturbed areas as a rooting medium for re-vegetation.
- Spread any cleared vegetation to trap wind-blown seeds, promote re-growth and minimize erosion.
- If necessary, spread fertilizer and an approved mix of seed over the disturbed area. (No exotic seeds are to be sown in native vegetated areas.)
- *Fencing may be required in some areas of re-vegetation.*
- Close off all cleared lines and tracks.
- Photographs should to be taken of sites before, during and after the operation where surface disturbance is expected.
- Rehabilitated areas should be monitored after exploration is complete either by physical inspection or by contacting the appropriate licensing authority.

## 13. REPORTING AND RECORDS MANAGEMENT

**Incident Reporting and Investigation**

Any significant environmental incident must be promptly reported and adequately investigated. Authorities must be notified as per regulations.

Examples of environmental incidents resulting from activities are:

- Hazardous materials spill.
- Bush fire.
- Introduction of noxious weeds or diseases.
- Damage to a heritage, cultural or sacred site.
- Contamination of surface or ground water,
- Significant erosion requiring major rehabilitation.

# SPILL CONTINGENCY PLAN
# For Camps and Remote Operations
# Committee Bay Resources Ltd.

December, 2003

SPILL CONTINGENCY PLAN

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## 1.0 Introduction

The Committee Bay Resources Ltd. Spill Contingency Plan shall be in effect from February 01, 2003 to February 2008. All future amendments will be posted and recorded on the attached amendment record form.

This Committee Bay Resources Ltd. Spill Contingency Plan encompasses all its present camps and active remote sites in Canada.

This Spill Contingency Plan is posted at operational remote sites.

Committee Bay Resources Ltd. endeavors to take every reasonable precaution toward ensuring the protection and conservation of the natural environment, the safety and health of Committee Bay Resources Ltd. employees, sub-contractors and contractors and (protecting) the community (at large) from any harmful effects of its materials and operations.

## 2.0 Facilities

No camp facilities have been established at this time.

## 3.0 Petroleum and Chemical Product Storage and Inventory

### 3.1 Remote Location Fuel Inventory, Storage and Handling Procedures

At times, Committee Bay Resources Ltd. may establish remote fuel caches for company use. Typically these caches would consist of 19 drums or less of jet fuel, stored in accordance with CSA approved methods of storage of drummed product.

### 3.2 Petroleum Product Transfer

Manual and automatic pumps (and aviation fuel filters for jet fuel) are used for the transfer of all petroleum products. Smoking, sparks, or open flame are prohibited in fuel storage and fuelling areas at all times.

## 4.0 Risk Assessment and Mitigation of Risk

### 4.1 Petroleum Products and Other Fuels

Following, is a list of potential sources of fuel spills:

1) Drummed product: Leaks or ruptures may occur. This includes and is not limited to drums of jet A/ B, diesel, waste fuel, waste oil.

2) Fuel cylinders: Propane, leaks may occur at the valves. All cylinders are secured at all times.

3) Vehicles and equipment: Wheeled vehicles and equipment, aircraft (fixed and rotary wing), snowmobiles, generators, pumps. Incidents involving leaking or dripping fuels and oils may occur due to malfunctions, impact damage, and lack of regular maintenance, improper storage, or faulty operation.

Regular inspection and maintenance in accordance with recognized and accepted standard practices at all Committee Bay Resources Ltd. camps and/ or fuel caches, reduces risks associated with the categories listed

above.

Spill response training is provided to personnel who handle fuels and other petroleum products, and at least one emergency response drill will be held during the season. A report will be prepared by the response coordinator following each drill, noting response time, personnel involved and any problems or deficiencies encountered. This report will be used to evaluate emergency response capability and remedy any deficiencies if required.

Oil/Fuel Spill Kits are positioned at all camps and/ or fuel caches. A list of Spill Kits, their location, description, and contents are listed in Section 8.

## 5.0 Responding to Failures and Spills

### 5.1 Spill Response Contact List

Committee Bay Resources Ltd. 24 hour telephone contact:

John Williamson, President

Work: 780 437-6624
Home: 780 430-6235
Cell: 780 915-6640

### 5.2 Basic Steps — Spill Procedure

In the case of any spill or other environmental emergency, it is necessary to react in the most immediate, safe, and environmentally responsible manner. No spill or incident is so minor that it can be ignored.

The basic steps of the response plan are as follows:

1) *Ensure* the safety of all persons at all times.

2) *Identify* and find the spill substance and its source, and if possible, stop the process or shut off the source.

3) *Inform* the immediate supervisor or his/her designate at once, so that he/she may take appropriated action. (Appropriate action includes the notification of a government official, if required, Spill Report forms are included in Appendix 3.

4) *Contain* the spill or environmental hazard, as per its nature, and as per the advice of the Spill Line as required.

5) *Implement* any necessary cleanup or remedial action.

### 5.3 Basic Steps — Chain of Command

1) *Immediately* notify Committee Bay Resources Ltd.. You may then be instructed to directly contact the:

*NWT 24 HOUR SPILL LINE and/or the DIAND 24Hour Line* at:

NWT Spill Line
Tel. 1-867-920-8130, Fx. 1-867-873-6924.

Diand
Tel. 1-867-975 4298

2) ***A Spill Report Form (Appendix 2)*** is filled out as completely as possible before or after contacting the 24 Hour Spill Line.

3) Other members of the team are notified as deemed necessary.

**5.4 Other contacts for spill response/assistance**

| | | |
|---|---|---|
| **Environment Canada:** | | |
| | Dave Tilden: | 867-669-4728 |
| **Indian and Northern Affairs** | | |
| Land Use Inspection: | Keb Dahl: | 867-669-2757 |
| Water Licence Inspection | Philip DePiso: | 867-360 6338 |
| Fisheries and Oceans Canada | Ron Allen: | 867-669-6641 |
| GNWT Environmental Protection Service | Ken Hall: | 867-876-7654 |

## 6.0 Taking Action

### 6.1 Before the Fact: Preventative Measures

The following actions illustrate the proactive approach of Committee Bay Resources Ltd. to environmental care. In addition, these actions minimize the potential for spills during fuel handling, transfer and storage:

1) Fuel transfer hoses with cam lock mechanisms are used.

2) Carefully monitor fuel content in the receiving vessel during transfer.

3) Clean up drips and minor spills immediately.

4) Regularly inspect drums, tanks and hoses for leaks or potential to leak.

6) Train personnel, especially those who will be operators, in proper fuel handling and spill response procedures.

### 6.2 After the Fact: Mitigative Measures

1. First steps to take when a spill occurs:

   a) Ensure your own safety and that of others around you, beginning with those nearest to the scene.
   b) Control danger to human life, if necessary.
   c) Identify the source of the spill.
   d) Notify your supervisor.
   e) Assess whether or not the spill can be readily stopped.
   f) Contain or stop the spill at the source, if possible, by following these actions:

If filling is in progress, STOP AT ONCE.
Close or shut off valves.
Place plastic sheeting at the foot of the tank, barrel, or piece of equipment to prevent seepage into the ground or runoff of fuel
Use absorbent materials (sheets, pads, booms) to absorb and contain the fuel spill.
Use a patch kit to seal leaks, if practical to do so.

2. Secondary steps to take:

Determine status of the spill event.
If necessary, pump fuel from a damaged and/or leaking tank or drum into a refuge container.
Notify the 24-hour Spill Report Line, and receive further instructions from the appropriate contact agencies listed in *Section 5.4.* (e.g. disposal of contaminated soil or ice/snow in sealed containers for removal from site, etc.).
Complete and Fax a copy of the Spill Report Form *(Appendix 3).*
Notify permitting authorities.
If possible, resume cleanup and containment.

### 6.3 Fuel Spills on Land

"Land" may be defined as soil, gravel, sand, rock, and vegetation. Advice on spill containment and cleanup may be obtained from the 24-Hour Spill Line.

#### 6.3.1 Procedure for Spills on Rock

For hydrocarbon spills on rock outcrops, boulder fields, etc.:

1) First responder or his designate obtains plastic tarp(s) and absorbent sheeting on-site.

2) A berm of peat, native soil or snow is constructed down slope of the seepage or spill.

3) the tarp is placed in such a way that the fuel can pool for collection and removal (e.g. at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums for sealing and disposal.

4) Absorbent sheeting is placed on the rock to soak up spilled oil, fuel, etc.

5) Multi Sorb (crushed lava rock) can be used to scrub the rock surface.

6) Saturated material is disposed of in an empty drum, which is then labeled and sealed. Alternatively, the pads may be wrung out into the empty drum(s), the drums marked and then secured for eventual disposal.

7) Depending on the nature and volume of the spill, the 24-Hour Spill Line may be contacted after Step 4 or Step 5.

#### 6.3.2 Procedure for Spills on Land

1) First responder or his designate obtains plastic tarp(s), absorbent sheeting, Multi Sorb or other ultra-dry absorbent and any other necessary spill containment equipment, pump, hoses, etc.

2) A berm of peat, native soil or snow is constructed down slope of the seepage or spill.

3) The tarp is placed in such a way that the fuel can pool for collection and removal (e.g. at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums, and dispose of product as advised by the 24-Hour Spill Line.

4) Petroleum-product sheen on vegetation may be controlled by applying a thin dusting of Multi Sorb or other ultra-dry absorbent to the groundcover.

5) Contact the 24-Hour Spill Line, Receive instructions from the appropriate contact agencies listed in Section 5.4 regarding collection of the contaminated soil or vegetation, its removal and site cleanup/restoration.

## 6.4 Fuel Spills on Water

### 6.4.1 Procedure for Spills on Water

It is important to immediately limit the extent of spills. The following is the procedure to be implemented when an incident occurs:

1) If the spill is small, deploy hydrophobic (water repellent) absorbent pads on the water. Hydrophobic pads readily absorb hydrocarbons. Alternatively, an ultra-dry absorbent designed for use on water-based spills may be deployed.

2) If the spill is larger, ready several empty drums to act as refuge containers for the spill.

3) Deploy *containment* booms on the water surface to "fence in" the spill area gradually and to prevent it from spreading. Keep in mind those environmental factors such as high winds and wave action can adversely affect attempts at spill cleanup.

4) *Absorbent* booms can then be deployed to encircle and then absorb any hydrocarbon spillage that may have escaped the *containment* boom.

5) Once a boom has been secured, a skimmer may be brought on-scene to aid in capture of the hydrocarbon; once captured, the product should be pumped to the empty fuel drums and held for disposal.

6) As soon as possible either during or after the incident, contact the 24-Hour Spill Line. (This will ensure government agencies are informed).

## 6.5 Fuel spills on Snow and Ice

By its nature, snow is an absorbent, and fuel spilled on snow is collected with relative ease, either by shovel, in the case of small-range spills, and by loader, in the case of more extensive spills.

### 6.5.1 Procedure for Spills on Snow

1) Assess the nature of the spill. Necessary equipment might include shovels, plastic tarp(s), empty drums, and wheeled equipment.

2) Shovel or scrape contaminated snow and deposit in empty refuge drums. If the spill is more extensive, build peat-bale berms or compacted snow berms with plastic over top, around the affected area.

3) Either during or immediately after the accident, notify the 24-Hour Spill Line. Receive

instructions on the preferred disposal method (e.g. storage in sealed drums, incineration or deposit in a designated lined containment area on land) from the appropriate contact agencies listed in *Section 5.4.*

### 6.5.2 Procedure for spills on Ice

Spills on ice are handled in similar fashion as those on snow. However, as ice presents the added danger of immediate access to water, care must be taken to respond quickly to such spills. Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.

1) Construct a compacted-snow berm around the edge of the spill area.

2) Although hard ice will retard or prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the ice (such as gravel or frozen absorbent pads) must be scraped from the ice surface and disposed of in an appropriated manner.

3) Contact the 24-Hour Spill Line. Receive disposal instructions (e.g. sealing in drums, burn off, etc.) from the appropriate contact agencies listed in *Section 5.4.*

## 6.6 Procedure for Chemical Spills

1) Assess the hazard of the spilled material. REFER TO THE MSDS SHEETS NOW. Members of the emergency response team who might be susceptible in certain situations, (such as asthmatics, where fumes or airborne particles are evident), should be replaced with alternates.
2) Assemble the necessary safety equipment before response (e.g. latex or other protective gloves, goggles, or safety glasses, masks or breathers, etc.)

3) Apply absorbents to soak up liquids.

4) Place plastic sheeting over solid chemicals, such as dusts and powders, to prevent their disbursement by wind or investigation by birds or other mammals.

5) Neutralize acids or caustics. Place spilled material and contaminated cleanup supplies in an empty refuge drum and seal for disposal.

6) Contact the 24-Hour Spill Line. Receive instructions on disposal methods and designated locations from the appropriate contact agencies listed in *Section 5.4.*

## 6.7 Procedure for Loss of External Load

The loss of external loads of fuel, oil, or chemicals from aircraft almost certainly results in complete and catastrophic failure of the container that once held the product. Immediate response is imperative.

1) Mark the loss target with GPS coordinates and relay to camp or base ASAP. Include quantity and type of load loss.

2) Base or camp will contact 24-Hour Spill Line, and receive direction and instruction.

3) Administer the appropriate procedure for Spills on Land, Water, Snow, or Ice.

## 7.0 Spill Equipment

Complete spill kits, oil absorbent kits, are kept on hand at all camps.

## 8.0 Training and Practice Drills

### 8.1 Training

All members of the Response Team will be familiar with the spill response resources at hand, this Contingency Plan, and appropriate spill response methods. Involvement of other employees may be required, from time to time.

This familiarity will be acquired through:

1) Initial or refresher training, as appropriate, provided once per season.

2) Regular inventory updates are provided in list form to all team members. Information to be reported includes listing of all resources, number of items, their location, condition, date of last inspection and any special comments (such as expiry dates, under whose authority they may be accessed and special handling instructions).

### 8.2 Practice Drills

Committee Bay Resources Ltd. is aware that without practice, no Contingency Plan has value.

At least one practice drill will be held per season to give personnel a chance to practice emergency response skills. Each practice will be evaluated and a report prepared with the objective of learning where gaps and deficiencies (either in skills or physical resources) exist, and in what areas more practice is required.

## Appendix #1

Manual Distribution

Title

**Company President**

John Williamson

**Geologists**

Andrew Turner

Rob L'Heureux

Jo Price

**Safety Officer**

Johanna Tuck

An amendment instruction sheet shall be included that lists and identifies pages in the manual to be added or replaced.

| Amendment No. | Amendment Date | Date Entered | Entered By |
|---|---|---|---|
| 1 | Dec 2, 2003 | Dec 2, 2003 | J. Tuck |

## Appendix #2

Spill Report Form

No spills have occurred to date.

# Appendix #2

Northwest Territories

## NWT SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-Hour Report Line
Phone: (867) 920-8130
Fax: (867) 873-6924

| | | | |
|---|---|---|---|
| A Report Date and time | B Date and time of Spill (if known) | C ☐ Original Report ☐ Update No. | Spill Number |

D Location and map coordinates (if known) and direction (if moving)

E Party Responsible for Spill

F Product(s) spilled and estimated quantities (Provide metric volumes/weights if possible)

G Cause of Spill

| | | | |
|---|---|---|---|
| H Is spill terminated? ☐ yes ☐ no | I If spill is continuing, give estimated rate | J Is further spillage possible? ☐ yes ☐ no | K Extent of contaminated area (in sq. m if possible) |

| | |
|---|---|
| L Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.) | M Containment (natural depression, dyke, etc.) |

N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials

| | |
|---|---|
| O Do you require assistance? ☐ no ☐ yes , describe* | P Possible hazards to persons, property, or environment: eg: fire, drinking water, fish or wildlife* |

Q Comments and/or recommendations *:

**FOR SPILL LINE USE ONLY**

Lead Agency

Spill significance

Lead Agency contact and time

Is this file now closed? ☐ yes ☐ no

| | | |
|---|---|---|
| Reported by: | Position, Employer, Location | Telephone No: |
| Reported to: | Position, Employer, Location | Telephone No: |

**Site Locations on the Committee Bay belt (NAD 83 zone 15)**

| | Easting or Latitude | Northing or Longitude |
|---|---|---|
| Dore Camp | | |
| UTM | 499000 | 7376500 |
| DD | 66o30'20" | 93o00'02" |
| Bullion Camp | | |
| UTM | 494850 | 7363850 |
| DD | 66o23'30" | 93o07'30" |
| Herc Strip Cache | | |
| UTM | 557585 | 7390506 |
| DD | 66o37'56" | 91o42'23" |
| Hayes Camp | | |
| UTM | 564613 | 7394173 |
| DD | 66o39'30" | 91o33'11" |
| Three Bluffs Drilling | | |
| UTM | 569153 | 7392660 |
| DD | 66o38'42" | 91o26'12" |
| Four Hills Drilling | | |
| UTM | 496635 | 7379784 |
| DD | 66o32'12" | 93o04'15" |

**COMMITTEE BAY PROPOSED 2004 DRILLING**

| | # of Holes | Meters/hole | Total Meters |
|---|---|---|---|
| **PHASE 1 DRILLING** | | | |
| Three Bluffs | 14 | 186 | 2610 |
| Ledge and Granite boundary | 6 | 120 | 720 |
| Hayes - Antler | 5 | 168 | 840 |
| Four Hills | 6 | 103 | 620 |
| **TOTAL PHASE 1 DRILLING** | **31** | **155** | **4790** |
| | | | |
| **PHASE 2 DRILLING** | | | |
| NE Tonalite | 4 | 80 | 320 |
| Shamrock | 2 | 80 | 160 |
| Propector | 2 | 80 | 160 |
| West Plains | 2 | 80 | 160 |
| Three Bluffs Area | 6 | 120 | 720 |
| Three Bluffs (Main Zone) | 3 | 300 | 900 |
| Four Hills | 6 | 140 | 840 |
| **TOTAL PHASE 2 DRILLING** | **25** | **130** | **3260** |
| | | | |
| **COMMITTEE BAY PROPOSED 2004 DRILLING (PHASE 1 AND PHASE 2)** | | | **8050** |

| | | | |
|---|---|---|---|
| Three Bluffs Main | 20 | 166.5 | 3330 |
| Three Bluffs Area (Ledge, Antler, Hayes) | 17 | 134.1 | 2280 |
| Four Hills | 12 | 121.7 | 1460 |
| | 49 | 144.3 | 7070 |