PROJECT PROPOSAL

TEHEK LAKE ACCESS ROAD

Cumberland Resources Ltd. proposes to conduct a geotechnical investigation of soil conditions and areas of snow pack along a preliminary road alignment from Baker Lake to the Meadowbank property at Tehek Lake in Nunavut.
The construction of a permanent access road to the property would reduce the freight cost of fuel and materials substantially and provide enhanced access to the Tehek and Whitehills Lake areas and provide a defined access route thereby minimizing the random route selection by ATV's currently in practice which has resulted in noticeable degradation of the tundra.

Route selection
Cumberland Resources Ltd. investigated three routes using aerial photographs and topographic maps. The routes selected attempted to locate the roadway on the windward side of hills or crests of hills to minimize snow accumulation and also minimize the number of water crossings. The selected routes are illustrated in figure 1 Access Road Options.
An assessment of the water crossings has been made and measurements of stream flow have been recorded at the spring high flow period and the fall low flow period. Option "C" the most easterly route was abandoned due to the number of water crossings and the depth encountered at some of the streams.
Option "A" which follows the height of land between the watersheds has a total of 4 water crossings and option "B" has a total of 23 water crossings. None of the crossings have a water depth greater than 1 meter.
The next step in route selection and design of the roadway is to conduct a detailed snow pack investigation and a comprehensive soils investigation in order to avoid areas of heavy snow accumulation by drifting and determine the soil classifications of the ground to be traversed. The soils investigation would also identify granular and till borrow areas and quantify the borrow sources. Following completion of the investigations, final route selection would be made and design of the road profile and section would be completed.

Road Design Parameters
Conceptual design for the roadway has a travel surface of 10 meters and an average height above the existing ground of 0.8 meters with gentle side slopes to not impede the migration of caribou. Road surface would be 3" minus material either pit run or quarried and crushed product. The roadway would accommodate mine production size equipment as well as conventional tractor trailer haul units on a single lane basis. Commercial equipment would require to be radio controlled and passing would be at the established pullout locations.
Construction of the proposed 102 kilometer road would be performed in four stages or zones. Zone 1A would be from Baker Lake to the north hamlet boundary a distance of approximately 18 kilometers. Zone 1B would be from the north hamlet boundary to the north Inuit owned lands boundary (BL 18/66 A) a distance of approximately 19

kilometers. Zone 2A extends from the north Inuit owned lands boundary to the south Inuit owned lands boundary at Tehek Lake a distance of 43 kilometers. Zone 2A is on lands under DIAND control. The final zone 2B would be from the south Inuit owned lands boundary (BL-14/56 D E) at Tehek Lake to Meadowbank a distance of 22 kilometers. The distances quoted are approximate and will vary depending on the final route determination.

PROJECT DESCRIPTION

SCOPE OF WORK

TEHEK LAKE ACCESS ROAD

1.0 INTRODUCTION

The following presents proposed engineering field investigations for the Baker Lake – Tehek Lake all season access route. The purpose of the proposed studies is to carry out field investigations to collect geotechnical and hydrological data to be used for the design of the proposed access road.

2.0 BACKGROUND

A preliminary route selection has been completed by Cumberland Resources Ltd. and has identified a route for access to the Meadowbank Gold Project near Tehek Lake (see figure 1.0). In addition to the initial route selection study, an assessment of the water crossings at peak spring high flow period, as well as during the fall low flow period was made by Amec Earth and Environmental. Finally, the proposed route alignment was flown by helicopter during a site visit in July of 2004.
The proposed route is approximately 102 kilometers in length and has approximately 23 water crossings all with a water depth of less than 1 meter based on stream depths recorded in June and September of 2004.

3.0 PROPOSED INVESTIGATIONS

A multiple phased approach will be used for the work. This will involve further refinement of the initial office route selection studies based on the available air photographs, on site photographs and video records of the proposed route, and on the recorded stream measurements. This initial work would be carried out during January and February of 2005, and will likely result in revision to the route selected to take advantage of the physical terrain and of the availability of materials. Following the preliminary studies, a program of geotechnical and geophysical engineering field investigations will be developed based on the revised route and would be implemented in late winter to early spring. The results of the field investigations would be used to develop appropriate design and construction criteria for critical aspects of the proposed road.

4.0 SCOPE OF WORK
Field Investigations

- Carry out a snow pack survey to identify areas of deep drifting to be avoided during final alignment selection. This task will be completed first so that any subsequent proposed geotechnical investigations can be modified to incorporate information obtained from this survey.

- Conduct field investigations and site reconnaissance to confirm the mapped soil types based on air photo interpretation, with a focus on identifying and sampling suitable sources of aggregate material for road construction and surfacing.

- Investigate and evaluate general foundation conditions along the route and at potential bridge abutment areas by test pitting, drilling, or other methods such as engineering geophysics.

- Assess water crossings for the purpose of obtaining data for culverts, bridge abutments, and bridge requirements.

- Carry out ground ice surveys using geophysics in selected areas that may be susceptible to the presence of massive ground ice, and as a consequence potentially susceptible to settlement and therefore ongoing road maintenance.

5.0 FIELD INVESTIGATIONS

The objectives of the field investigations are to verify the foundation conditions interpreted during the terrain assessment component along the selected route, to obtain geotechnical information that will be required for use in the engineering design of bridge abutments, culverts, road profile, and road sections, and to assess the availability and suitability of materials for use in constructing the road.

5.1 SNOW PACK SURVEY

A snow pack survey will be conducted to assess the route alignment with respect to the terrain physiography as this will influence the accumulation and drifting of snow along the route. This survey will be carried out before any melt starts to occur. The main factors affecting snow distribution are wind erosion and deposition because of the sparse vegetation in the arctic. Topographic features govern snow redistribution by wind. For reasons of safety, a team of two persons will be required for the survey. The snow survey will be carried out by a senior engineering geophysicist using a Ground Penetrating Radar (GPR) pulled behind a snowmobile. A video recorder will be attached to the front of the snowmobile so that actual conditions along the route can be recorded. A GPS unit will then be used to geo-reference the video records of the survey.

It is proposed to begin the snow pack survey during the last week of March, or first week of May.

5.2 EM31 and GROUND PENETRATING RADAR

It is the intent to carry out an EM31 survey along segments of the route alignment to assess the presence of ground ice. The segments to be surveyed will be based on the results of the air photo study. Identifying the presence or absence of ground ice along the alignment will be important in developing appropriate road cross sections for the expected soil types and soil ice conditions. The presence of ground ice within overburden materials may also impact the road construction methodology that is used over certain segments of the route. Furthermore, the identification of the presence or absence of ground ice at abutment areas for bridge crossings will be essential for the appropriate design of these structures.
The EM31 may also be used to assess the presence or absence of ground ice within granular resource areas identified during the air photo interpretation. The presence of ground ice will influence the ease with which granular resource materials can be excavated. In addition to the EM31 survey, it is proposed to use Ground Penetrating Radar (GPR) at these sites to investigate depth to bedrock. GPR will also be used to provide additional information at the proposed bridge crossings.

5.3 GEOTECHNICAL DRILLING

In the event that overburden depths dictate that additional data should be procured at the abutment areas of the 5 proposed bridges, geotechnical drilling may be required. Drilling methods would be a combination of standard triple tube overburden and bedrock coring methods, combined with the use of a refrigeration plant for the retrieval of samples of frozen overburden core from specific boreholes. This phase of the program would be conducted subject to drill availability.

5.4 OVERBURDEN SAMPLING AND TESTING

Once potential sources of till and aggregate materials have been identified from the air photo interpretation, a selected number of sites will be investigated further by sampling of materials. The purpose of the sampling and testing is to confirm the results of the air photo interpretation, to obtain samples for index testing, and to provide additional information relating to the suitability of the materials for road sub-base or general fill purposes. Test pitting would be performed by one of the following pieces of equipment: John Deere 410 loader / backhoe (rubber tired), or an air transportable mini excavator.

6.0 PROGRAM IMPLEMENTATION AND LOGISTICS

All of the above listed activities will be conducted by crews operating out of the current Meadowbank camp site, located approximately 70 km north of the Hamlet of Baker Lake. The proposed work program will be helicopter supported. Crew movements and required fuel transportation will utilize the helicopter in order to reduce the amount of ground disturbance and to negate the need for fuel caches in the project area. All garbage generated by the program will be returned to the Meadowbank camp or Baker Lake for disposal.

Fuel required for the program will be transported by helicopter utilizing 205 litre drums sourced from the Meadowbank camp site. Fuel will be transferred from the drums using hand pumps, and absorbent matting will be used during fuel transfer operations to prevent spillage. Empty fuel containers will be returned to the Meadowbank camp for re-filling All fuel related activities will follow the guidelines set out in Cumberland's Fuel transportation and storage Management Plan which has been used successfully since 1999 (an excerpt from the plan is attached).

7.0 ENVIRONMENTAL (this section refers to specific questions set out in Appendix A of the application form)

Question 10: Indicate the components of the environment that are near the project area, as applicable. Include the type of species, the important habitat area (calving, staging, denning, migratory pathways, spawning, nesting, etc.) and the critical time periods (calving, post-calving, spawning, nesting, breeding etc.). Also include information on eskers, communities and historical/ archaeological sites.

- Wintering area for caribou; migration corridors for caribou
- Breeding and living areas for numerous common species such as larkspurs, larks, pipits, sik siks, voles and lemmings
- Low suitability raptor nesting area because of low availability of suitable rock faces and cliffs
- Limited waterfowl nesting areas in wetlands
- No eskers identified on topographic maps

Question 11: Summary of potential environmental, wildlife and resource impacts and mitigation measures to be used. Describe the effects of the proposed program on lands, water, flora and fauna.

Impacts

- Sensory disturbance (due to vehicle and drilling activities) to wintering wildlife, particularly caribou, which are known to occur along the proposed access route in moderate numbers during winter,

- Sensory disturbance to breeding birds and denning mammals during summer (June to July) due to vehicle and drilling activities. Sensory disturbance to caribou in summer is considered to be low because of very low caribou numbers in the region during the summer months
- Direct disturbance of nesting songbirds (e.g., Lapland Longspur), waterfowl (e.g., Canada Goose), and possibly ground-nesting raptors (e.g., Snowy Owl)
- Direct disturbance of denning mammals (e.g., Sik Sik) and other small mammals (e.g., lemmings)
- Degradation of vegetation communities, many of which are established on areas of very shallow soils, and are extremely sensitive to disturbance
- Sedimentation and in-stream substrate disturbance of small creeks in summer due to vehicles tracking through waterways
- Direct disturbance of in-stream spawning habitat
- Fuel spills related to vehicle use
- Garbage and other wastes will attract scavengers such as Grizzly Bear, Wolverine and Arctic Fox, leading to possible "problem" animals

Mitigation Measures

- Vehicles used in summer will have large rubber tires, which will minimize disruption of vegetation communities. No track-outfitted equipment will be used
- To avoid inadvertent disturbance in summer, environmental monitors will walk in front of the equipment to look for nesting birds and wildlife denning sites. If nesting birds or other valued ecosystem components are located, vehicle operators will be directed around the site, and monitors will take appropriate actions to ensure that impacts (sensory or otherwise) are minimized.
- To reduce potential for fuel spills, vehicles and equipment will be maintained in excellent running condition. Environmental monitors will ensure that all vehicles are adequately maintained, will report any fuel spills, and will have clean-up kits on site in case fuel spills do occur.
- To reduce noise associated with equipment operation, vehicles will have be equipped with mufflers that meet current standards

All garbage, sewage, packaging materials and other introduced materials will be bagged and transported by helicopter to Meadowbank Camp or Baker Lake for incineration and/or disposal

8.0 RESTORATION PLANS

- Test pits will be excavated in a way to minimize impact to surrounding land.
- At test pit sites, surface vegetation and organic soils will be removed and deposited in a temporary storage area. After test pit completion, the pit will be backfilled in the reverse order of removal with organic soils and vegetation being replaced last.
- Site-specific replanting or reseeding will be conducted on an as-needed basis.
- Any field spills will be cleaned up immediately


-96°36'
-96°24'
-96°12'
-96°
-95°48'
N
65°
Meadowbank
Tehek Lake
B05
B04
64°48'
B03
64°36'
Whitehills Lake
Thelon River
B02
B01
64°24'
LEGEND
Inuit Owned Land
Stream Crossing
Proposed Road Access
Winter Road
Meadowbank Camp
Baker Lake
FIG 1.0
CUMBERLAND
RESOURCES LTD.
Meadowbank Gold Project
Tehek Lake
Access Road
0
5
10
kilometres

FUEL TRANSPORT AND STORAGE MANAGEMENT PLAN

CUMBERLAND RESOURCES LTD.
MEADOWBANK GOLD PROJECT, NUNAVUT

Cumberland Resources Ltd.
950-505 Burrard Street
Vancouver, British Columbia
V7X 1M4

II. SPILL RESPONSE ACTION PLAN

SPILL RESPONSE SEQUENCE

1. REPORT ALL SPILLS TO:

Spill Site Coordinators, Peter's Expediting		
Exploration Project Manager	or	Phone: (604) 608-2557
Senior project geologist on site		Phone: (604) 608-2557
Camp Manager		Phone:

The reporting requirement applies to all spills: on land, on water and on ice.

The reporting requirement applies equally to all substances covered by this contingency plan; fuels, hydraulic oil, lubricants, and waste oil.

All reports by telephone must be followed with a fax of the completed report form (see Appendix D for copies) to the number indicated on the reporting form.

Reporting and notification described below must be made by the first observer of the spill to the observer's superior immediately upon the spill being under control, or on failure to gain control of the situation.

2. ALERT Cumberland Personnel:

SPILL OBSERVER
IMMEDIATE SUPERVISOR or Meadowbank Camp manager
- Meadowbank Project Manager
- Contractors (clean up)

3. NOTIFY AGENCIES:

24 HOUR NWT SPILL REPORT LINE	PHONE	(867) 920-8130
	FAX	(867) 873-6924
KIVALLIQ INUIT ASSOCIATION		(867) 645-2810
DIAND – Rankin Inlet		(867) 645-2831
Iqaluit		(867) 979-4405
Environment Canada – Yellowknife		(867) 920-6060
Fisheries and Oceans Canada		(867) 645-2871
GNWT DRWED – Rankin Inlet		(867) 645-5067

4. RECORD THE FACTS Use Spill Report Form from Appendix D

NOTE:	If the On-Scene Coordinator is not available when a spill is detected then the spill must be Reported directly to NWT 24-hour spill report line without delay.

III. SPILL RESPONSE - FUEL TYPE

The procedure of dealing with a spill is dependent on the type of material spilled. The following sheets summarize the correct procedures for dealing with spills of the materials transported and stored at the Meadowbank project site - gasoline, Jet A and Jet B aviation fuel, P-50 diesel (stove oil), propane and acetylene. Other petroleum products such as lube oil and waste oil will only be present in small amounts, but product information sheets are also included for all these products.

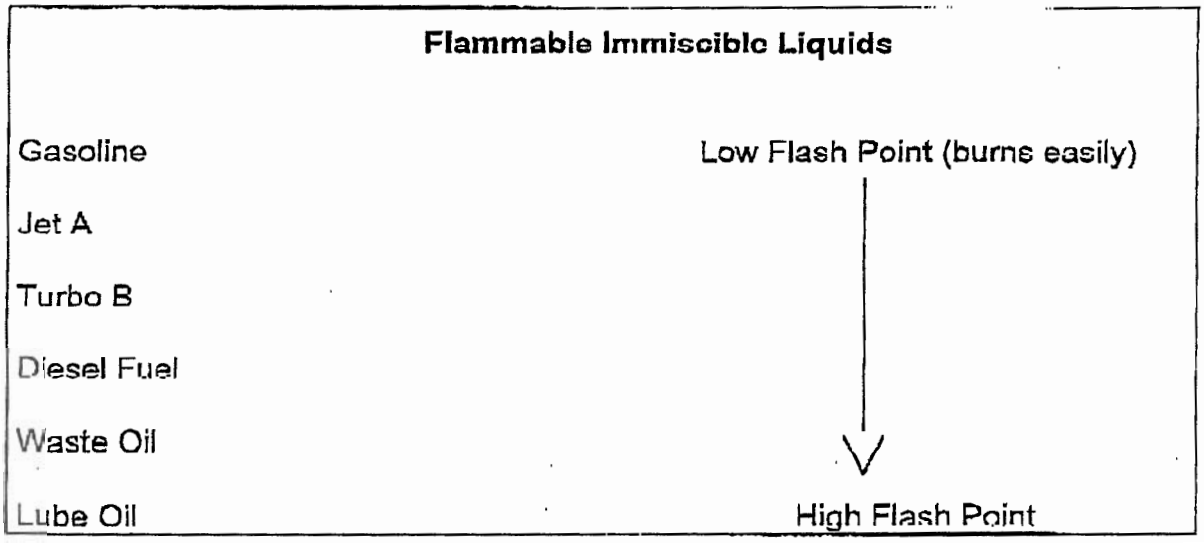
PRODUCT GUIDES

The materials included in this Plan can generally be divided into two categories:

- Flammable immiscible liquids
- Flammable compressed gases

A-1. Flammable Immiscible Liquids

These substances are all hydrocarbon-based and will ignite under certain conditions. Gasoline and aviation fuel pose the greatest fire (and safety) hazard and usually cannot be recovered when spilled on water. The remaining materials generally do not pose a hazard at ambient temperatures. They are all insoluble, float unless mixed into the water column and can be recovered when safety allows.



GASOLINE SPILL RESPONSE ACTIONS

CONSIDER ACTION ONLY IF SAFETY PERMITS

GASOLINE FORMS VAPOURS THAT CAN IGNITE AND EXPLODE

NO SMOKING

Refer to Product Guide in Appendix A for:
Physical/Chemical Properties
Response to Fires
First Aid

- ELIMINATE IGNITION SOURCES
- STOP SOURCE OF GASOLINE IF SAFE TO DO SO

ON LAND
- Block entry into waterways by diking with earth, snow or other barrier(s).
- Do not contain spill if there is any chance of igniting vapours.
- On shop floors and in work/depot yards, apply particulate sorbents.
- On tundra use peat moss and leave to degrade if feasible to do so.

ON SNOW & ICE
- Block entry into waterways by diking with snow or other barrier.
- Do not contain spill if there is any chance of igniting vapours..
- In work/depot yards, apply particulate sorbents.

ON MUSKEG
- Remove pooled gasoline with pumps, if safe to do so.
- Do not deploy personnel and equipment on marsh or vegetation.
- Low pressure flushing can be tried to disperse small spills.
- Burn CAREFULLY only in localized areas, e.g., trenches, piles or windrows.
- Do not burn if root systems can be damaged (low water table).
- Minimize damage caused by equipment and digging.

ON WATER
- Contain or remove spills ONLY AFTER VAPOURS DISSIPATE.
- Use booms to protect water intakes.
- Skimming can be tried once light ends evaporate.

STORAGE/TRANSFER

- Store closed, labeled containers in cool, ventilated areas away from incompatible materials.
- Electrically ground containers and vehicles during transfer.

DISPOSAL

- Segregate waste types, if necessary.
- Place contaminated materials into marked containers.
- Consult camp manager on transportation and disposal requirements.

GASOLINE

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colourless liquid (can be dyed)	FLASH POINT:	-50° C
ODOUR:	Gasoline / Petroleum	FREEZING PT:	-60° C
SOLUBILITY:	Insoluble	VISCOSITY:	Not viscous (< 1 cSt)
VAPOUR DENSITY:	Will sink to ground levels	SPECIFIC GRAVITY:	Floats on water (0.7 - 0.8)

SAFETY MEASURES

WARNINGS

- Vapours form instantaneously, and are heavier than air.
- Empty containers can contain explosive vapours.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials (DO NOT USE NATURAL RUBBER, NEOPRENE, OR PVC).
- Wear full-face organic vapour cartridge respirator where oxygen is adequate; otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozones, peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO_2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

PROPANE RESPONSE ACTIONS

GAS STORED IN CYLINDERS THAT EXPLODE WHEN IGNITED!

CONSIDER ACTION ONLY IF SAFETY PERMITS

KEEP ALL VEHICLES INCLUDING SNOWMOBILES AWAY FROM ACCIDENT AREA

Refer to Product Guide in Appendix A for:
Physical/Chemical Properties
Response to Fires
First Aid

- Vapours cannot be contained when released.
- Water spray can be used to knock down vapours if there is NO chance of ignition.
- Small fires can be extinguished with dry chemical or CO.
- Personnel should withdraw immediately from area unless a small leak is stopped immediately after it has been detected.
- If tanks are damaged, gas should be allowed to disperse and no attempt at recovery should be made.
- Personnel should avoid touching release point on containers since frost quickly forms.
- Stay clear of tank ends.

PROPANE
TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colourless Gas	FLASH POINT:	-104° C
ODOUR:	Natural Gas odour	FREEZING PT:	-190° C
SOLUBILITY:	Insoluble	VISCOSITY:	n/a
VAPOUR DENSITY:	Will sink to ground levels	SPECIFIC GRAVITY:	Liquid floats on water

SAFETY MEASURES

WARNINGS

- Vapours form instantaneously, and are heavier than air.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials (DO NOT USE NATURAL RUBBER, NEOPRENE, OR PVC).
- Avoid frostbite burn to skin and eyes from contact with propane.
- Wear full-face organic vapour cartridge respirator where oxygen is adequate; otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozones, peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO_2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

IV. SPILL RESPONSE CONTACTS

Cumberland Resources Ltd., Meadowbank Project

TITLE	NAME	OFFICE	FAX
On-Scene Coordinators			
Camp Manager	Ewald Gossner	(604) 608-2557	(604) 608-2559
Project Manager	Brian Alexander	(604) 608-2557	(604) 608-2559
Project Geologist	Roger March	(604) 608-2557	(604) 608-2559
Contractors			
Fuel Transportation Manager	Peter Tapatai	(867) 793-2703	(867) 793-2988

V. LOCAL TRANSPORTATION

Air Lines - Scheduled

Calm Air	(867) 793-2873
Skyward Aviation	(867) 793-2703

Helicopters

Custom Helicopters (Rankin Inlet)	
Staff House	(867) 645-3885
Hanger	(867) 645-3939

Overland Transportation - Delta Foremost

Peter's Expediting	(867) 793-2703

VI. EQUIPMENT SUPPLIERS

Frontier Mining - Yellowknife	(867) 920-7617	spill kits & various sorbents
Acklands - Yellowknife	(867) 873-4100	spill kits & various sorbents

VII. INTERNAL RESOURCES - CUMBERLAND RESOURCES LTD.

Senior Management - President, Senior Vice President

- Responsible for all communication with the media
- Ensures that all press releases are accurate and in accordance with company policy
- Coordinates and exercises overall direction to Spill Response Team in the case of a major spill

Project Manager, Project Geologist

- Project Manager, or in his or her absence, the Project Geologist is responsible for the in-field operation of the Spill Response Team.
- Assists senior management in the preparation of news releases
- Updates and distributes Contingency Plan
- Ensures that there are follow up reports prepared on the spill event, clean-up and environmental impacts

Camp Manager

- Develops safe and effective spill management and prevention practices
- Responsible for management and regular inspection of fuel storage facilities at Meadowbank camp

Environmental Consultant

- Provides advisory services to the Spill Response Team as well as management

Legal Counsel

- Advises senior management and the project manager as requested on issues related to:
    - Legislative authority of various government agencies
    - Questions of due diligence
    - Costs/fines and liabilities, regulations including penalties associated with regulations
    - Consults with the corporate insurance coordinator and advises senior management on matters related to insurance

Board of Directors

- Establishes corporate environmental policy based on the recommendations of senior management

VIII. EXTERNAL RESOURCES – GOVERNMENT

Department of Indian and Northern Affairs (DIAND)

The Northern Affairs program of DIAND administers the Territorial Lands Act and Regulations. Through this legislation land use permits are issued. One of the conditions of land use permits is the requirement to report all spills to a 24 hour government run report line (867-920-8130). Land Use Permits may also address matters of environmental conservation and protection including waste disposal, sources of borrow materials, open pit mining, road alignments, land reclamation and closure requirements. Enforcement of the provisions of the land use permits is carried out by the Operations Division of DIAND through Resource Management Officers located at the District Offices.

Inspection of Cumberland project activities located on Crown Land by Resource Management Officers is conducted periodically.

Environment Canada (EC)

The Environmental Protection and Conservation Service of Environment Canada administers the Canadian Environmental Protection Act (CEPA) and Section 36 of the Fisheries Act. For the latter this specifies that unless authorized by regulation, any effluents discharged into fish bearing water must be non-toxic. Environment Canada officials have in the past laid charges in the NWT under the Fisheries Act for spills of oil and other hazardous material.

EC is responsible for providing environmental advice to federal and territorial government agencies and for the preservation and enhancement of environmental quality.

Department of Fisheries and Oceans (DFO)

The Department of Fisheries and Oceans (DFO) administers the habitat protection provisions of the Fisheries Act. This includes provisions for prohibiting the blocking of fish passageways and the destruction of fish habitat. DFO operates under a Habitat Management Policy whereby the objective is to achieve a net gain of fish habitat within the NWT. On occasion DFO Inspectors visit spill sites to investigate possible impacts to fish habitat.

IX. REFERENCES

WMC International Limited Transportation Spill Contingency Plan - Meliadine West Project. August, 1998.

BHP Diamonds Inc. Transportation Spill Contingency Plan. January 1997.

Department of Transportation. Environmental Guidelines for the Construction, Maintenance and Closure of Winter Roads in the Northwest Territories. Prepared by Stanley Associates Engineering Ltd. 1993.

Northwest Territories Water Board. Guidelines for Contingency Planning. 1987.

ACKNOWLEDGMENTS

Cumberland Resources Ltd. gratefully acknowledges the use of the Transportation Spill Contingency Plans developed initially by BHP Diamonds Inc. and subsequently by WMC International which was used as the model and template in developing this plan for the Meadowbank Gold Project. The generosity of WMC International in providing their document is greatly appreciated.

APPENDIX A - INVENTORY OF SPILL RESPONSE KITS

Cumberland Resources uses "Sphag Sorb" for spill response kits. This product is composed of dried and filtered spaghnum moss which has the ability to absorb oils without absorbing water. Once used, Sphag Sorb can be safely disposed of in conventional land fill facilities since all oils will continue to be held within the capillaries of the peat moss until they naturally decompose. In addition, this product will not leach contaminants in land fill sites. For disposal of material from smaller spills, Sphag Sorb is ideal for incineration.

The Spill Response Kit at the Meadowbank Project consist of:

- 1 Case containing 30 Sphag Sorb pads (SS-PAD). Each pad can absorb approximately 5 - 7 litres of contaminant. These pads are to be used for cleaning up minor spills.
- 1 ECP Emergency Spill Response Kit containing the following:
  - 1 - 72"X36"X33" safety yellow polyethylene containment kit with decals
  - 1 - 40 cu. ft. activated Sphag Sorb
  - 1 - 22 SS 14 Sphag Sorb pillow
  - 1 - 4 litres Plug It emergency seal
  - 2 - pairs rubber gloves
  - 1 - pair chemical goggles
  - 5 - disposal bags
  - 1 - waterproof flashlight
- 2 shovels
- 2 rakes
- 2 waterproof flashlights

This material is located near the fuel storage vaults as indicated on the attached figure.

Northwest Territories

N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

ᓄᓇᕗᑦ ᑯᐱᐊᒥ ᐅᓂᒃᑳᖅᑎᑦᓯᐊᕐᓂᖅ, ᓱᓕ, ᑯᑦᓱᓐᓂᑦ ᐃᓕᓴᐃᓐᓇᖅ ᐅᖃᓕᒫᖅ

24-ᓂᑦ ᐃᑲᖏᓐᓂᑦ ᐅᓂᒃᑳᖏᑦᑐᓐᓇᖅᑐᑦ ᐅᖃᒃᖏᐊᔪᓐᓇᖅᑐᑦ
Phone/ᐅᒃᑲᓕᑦ (403) 920-8130
Fax/ᓱᒃᑐᒍᑦ (403) 873-6924

A Report date and time ᐅᖃᓅᓯᐅᑎᓪᓗᒍ ᑖᒃᑯᐊᓂᖓᓄᑦ ᐅᓂᒃᑳᖅᑎᓪᓗᒍ	**B** Date and time of spill (if known) ᐅᖃᓅᓯ ᐊᑎᖓᓄᑦ ᑖᒃᑯᐊᓂᖓᓄᑦ (ᓴᐅᔨᒪᔨᐅᑉᐸᑦ)	**C** ☐ Original report ᓄᓇᕗᑦᓯᐊᕐᓂᖅ ᐅᓂᒃᑳᖅᑎᑦᓯᐊᕐᓂᖅ ☐ Update no. ᐅᓂᒃᑳᖅᑎᒃᓴᓪᓗᒍ ᐊᑦᑕᐅᑦ	Spill number ᐊᑎᖓᓄᑦ ᐃᓚᐅᑦ

D Location and map coordinates (if known) and direction (if moving)
ᓇᓂ ᐊᑎᖓᓄᑦ ᑯᓚᓐ ᓇᓪᓕᔪᓐᓇᑦ ᐃᓚᐅᑎᖓᓄᑦ (ᓴᐅᔨᒪᔨᐅᑉᐸᑦ) ᑯᓚᓐ ᓇᒧᓐᓇᐅᑦᓯᐊᕐᓚᓐᓂᑦ (ᐃᓄᖓᓄᑦ)

E Party responsible for spill
ᑭᒧᑦ ᐊᐃᑎᑎᑦ

F Product(s) spilled and estimated quantities (provide metric volumes/weights if possible)
ᑭᓯᑦ ᑭᓱᓕᓐᓂᑦ ᐊᐃᑦ ᖃᓄᐃᓐ ᐊᓯᐅᖃᕐᓂᑦ (ᐊᓯᐅᓂᓗ ᐅᑭᓱᐅᓂᖓᓕᓐᓂᑦ ᐊᓯᓇᖏᑦᑐᑦ)

G Cause of spill
ᑭᓯ ᐊᐃᑦᓯᑕᐅᑦ

H Is spill terminated? ᐊᐃᑦᓯᐅ ᓄᖅᑎᑎᑕᐅᑦ? ☐ yes/ᐃ ☐ no/ᑯᓚ	**I** If spill is continuing, give estimated rate ᓯᓂ ᐊᐃᑦᓯᑦ ᖃᓄᐃᓐ ᓯᓚᓂᑎᓪᓗᒍᓯᒪᓂᖅ	**J** Is further spillage possible? ᐊᐃᖏᓐᓂᑐᐃᓐᓇᓂᖓᓯᒪᓂᖅ? ☐ yes/ᐃ ☐ no/ᑯᓚ	**K** Extent of contaminated area (in square metres if possible) ᖃᓄᐃᓐ ᓂᕆᑎᑦᓯ ᐊᐃᑦᓯᐊᐅᑦ (ᐅᑐᑐᓂᓕᓚᔪ ᐊᓯᓇᖏᑦᑐᑦ)

L Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.)
ᑭᓯᑦ ᐱᓕᕆᑕᑦ ᐊᐃᑦᓯᑦ ᐅᓂᓪᓚᔪᓐᓇᖅ ᐊᓂᒍᓯᒪᔪᓂᓗ ᐱᓇᓐ ᖃᓄᐃᓐᓂᒃᓴᓂᓐᓂᑦ, ᓄᓇ ᖃᓄᐃᓐᓂᒃᓴᓂᒃᓴᓂᑦ ᐊᑐᖅᐅᓂᒪᓂᓐᓂᒃ, ᐊᓯᐅᓂᓗ ᐃᓄᐃᑦ)

M Containment (natural depression, dykes, etc.)
ᐅᖃᓕᒫᖃᖅᑎᑦ ᑭᓚᓐᓂᑦ ᐱᓕᕆᓂᖅᓯᐊᕐᓂᖅ ᓄᓇ ᓴᓇᓪᓕ ᐃᓕᓴᐃᓐᓇᑦ, ᐊᓯᐅᓂᓗ ᐃᓄᐃᑦ)

N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials
ᖃᓄᐃᓐᓂᒃᑳᑦ, ᖃᓄᐃᓐᓂᒃᑳᑎᑦᓯᐊᕐᓂᑦ ᐅᑦᓯᓗ ᖃᓄᐃᓐᓂᒃᑳᑎᑦᓯᓂᖅᓯᐊᕐᓂᑦ ᐊᑕᐅᓯᒋᑎᑕᐅᓂᓕᕐᓂᑦ, ᓄᖅᑎᑎᑕᐅᓂᓕᕐᓂᑦ, ᓴᓇᒪᓐᓇᑕᐅᑦ ᐅᑎᑕᐅᓂᓗ ᐊᑎᑕᐅᓂᓕᕐᓂᑦ ᐊᐃᑦᓯᓂ (ᐊᐃᑦᓯᑦᓴᓐᓂᑦ ᑯᓚᓐ ᐊᐃᑎᐃᑦᓯᑦ.

O Do you require assistance?
ᐃᓱᒪᓕᑕᐅᓴᐃᖅᓯᒪᔪᓐᓇᖅᑐᑦ?
☐ no ᑯᓚ ☐ yes, describe: ᐃ - ᓄᓇᐃᓱᒪᓗᒍ

P Possible hazards to persons, property, or environment: eg: fire, drinking water, fish or wildlife
ᑭᓯᐅᓇᑐᐃᓐᓇᖅᓯᒪᔪᓐᓇᖅᑐᑦ ᐃᓄᓐᓂᑦ, ᐱᖁᑎᒋᔭᐅᓂᓄᑦ ᐅᑦᓯᓗ ᐊᓯᖏᓐᓂᖅ ᓱᓐ - ᐃᑭᓐᓇᓂ, ᐃᒥᓱᑦ ᓂᐅᖏᓐᓄᑕᐅᓱᑦᓴᓂ, ᐃᖏᓕᓄᑦ ᐅᑦᓯᓗ ᓂᓪᓕᐅᓂᑦ

Q Comments and/or recommendations ᐅᖏᐅᓴᐃᑦ ᑯᓚᓐ ᐅᑦᓯᓐᓂᑦ ᖃᓄᐃᓐᓂᒃᑳᑎᑦᓯᐊᕐᓂᖅ

FOR SPILL LINE USE ONLY
ᑕᒪᓐᓇᐅᔪᓐᓇᖅ ᐊᐃᑦᓯᑦ ᐅᖃᓕᓐᐃᑦᓯᓐᓂᒃᓴᓂᖅ

Lead Agency
ᐃᓐᓇᐃᖅᑐᓂᓐᓂᑦ ᐊᐃᑦᓯᒥ ᑲᒪᔨᖅᓂᒪᓂᑦ

Spill significance
ᐊᐃᑦᓯ ᖃᓄᐃᓐᓇᓂᖅᓯ

Lead Agency contact and time
ᐃᓐᓇᐃᖅᑐᓂᓐᓂᑦ ᐊᐃᑦᓯᒥ ᑲᒪᔨᖅᓂᒪᓂᑦ ᖃᐅᔨᓴᓐᓂᖅᑐᑦ ᐅᑦᓯᓗ ᖃᓄᐃᓐᓂᒃᑳᖅᑎᓪᓗᒍ

Is this file now closed? ᑕᐃᓇ ᐅᓂᒃᓇᐅᔪᓐᓇᖅ ᓯᑐᒃᑯᑦ? ☐ yes/ᐃ ☐ no/ᑯᓚ

Reported by ᐅᓂᒃᖃᓐᓂ	Position, Employer, Location ᖃᓄᐃᓐᒥᑦ ᐃᓐᓇᐃᖅᑐᓂᓐᓂᑦ, ᐃᓐᓇᐃᖅᑐᓂᑎᓪᓗ, ᓇᒥ	Telephone ᐅᒃᑲᓕᑦ
Reported to ᑭᓱᓂᑦ ᐅᓂᒃᓴᐅᓕᕐᓂᖅ	Position, Employer, Location ᖃᓄᐃᓐᒥᑦ ᐃᓐᓇᐃᖅᑐᓂᓐᓂᑦ, ᐃᓐᓇᐃᖅᑐᓂᑎᓪᓗ, ᓇᒥ	Telephone ᐅᒃᑲᓕᑦ

NWT 1758/1295

Northwest Territories

N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-hour Report Line
Phone (403) 920-8130
Fax (403) 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 square metres if possible)

L Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.)	M Containment (natural depression, dykes, 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
Reported to	**Position, Employer, Location**	**Telephone**

NWT 1752/1295