

PRELIMINARY SCREENING REPORT FORM

PRELIMINARY SCREENER: George Govier REFERENCE / FILE NUMBER: S07C-004 APPLICANT: Hunter Bay Resources DATE: June 26, 2007	EIRB REFERENCE NUMBER: TITLE: Executive Director ORGANIZATION: Sahtu Land & Water Board
--	--

Type of Development: Mining (exploration)

- Type of Development: (CHECK ALL THAT APPLY)
- New Development
 - Amend, EIRB Ref. #
 - Renew, EIRB Ref. #
 - Requires permit, license or authorization
 - Does not require permit, license or authorization

Principal Activities (related to scoping)
(CHECK ALL THAT APPLY)

- Construction
- Exploration
- Decommissioning
- Installation
- Industrial
- Abandonment
- Maintenance
- Recreation
- Aerial
- Expansion
- Municipal
- Harvesting
- Operation
- Quarry
- Camp
- Repair
- Linear / Corridor
- Scientific / Research
- Water Intake
- Sewage
- Solid Waste
- Other: _____
(DESCRIBE)

Principal Development Components (related to scoping)
(CHECK ALL THAT APPLY)

- Access Road
 - construction
 - abandonment/removal
 - modification e.g., widening, straightening
- Automobile, Aircraft or Vessel Movement
- Blasting
- Building
- Burning
- Burying
- Channeling
- Cut and Fill
- Cutting of Trees or Removal of Vegetation
- Waste Management
 - disposal of hazardous waste
 - waste generation
- Sewage
 - disposal of sewage
- Geoscientific Sampling
 - trenching
 - diamond drill
 - borehole core sampling
- Bulk soil sampling
- Gravel
- Hydrological Testing

- Dams and Impoundments
 - construction
 - abandonment/removal
 - modification
- Ditch Construction
- Drainage Alteration
- Drilling other than Geoscientific
- Ecological Surveys
- Excavation
- Explosive Storage
- Fuel Storage
- Topsoil, Overburden or Soil
 - fill removal
 - disposal storage

- Site Restoration
 - fertilization
 - grubbing
 - planting/seeding
 - reforestation
 - scarify
 - spraying
 - recontouring
- Slashing and removal of vegetation
- Soil Testing
- Stream Crossing/Bridging
- Tunneling/Underground
- Water Intake
- Other

NTS Topographic Map Sheet Numbers
(LIST ALL THAT APPLY)

NTS Map Sheet #s: NTS 1:50,000 86K04/86K05

Latitude / Longitude and UTM System: Minimum Latitude 66°11' N, Maximum Latitude 66°28' N
Minimum Longitude 117°29' W Maximum Longitude 117°80' W

(DEGREES, MINUTES, SECONDS)

Nearest Community and Water Body: The Charter Community of Deline NT is the nearest community and the nearest body of water is Great Bear Lake.

Land Status (consultation information)
(CHECK ALL THAT APPLY)

- Free Hold / Private
- Commissioner's Land
- Federal Crown Land
- Municipal Land

Transboundary Implications
(CHECK ALL THAT APPLY - IF KNOWN & APPLICABLE)

- British Columbia
- Alberta
- Saskatchewan
- Yukon
- Nunavut
- Wood Buffalo National Park
- Inuvialuit Settlement Region

N/A

Type of Transboundary Implication: Impact / Effect Development

Public Concern _____
(DESCRIBE)

N/A

PHYSICAL - CHEMICAL EFFECTS

IMPACT

MITIGATION

1. Ground Water

water table alteration

water quality changes

1. Water use per year will be 7200 cubic metres
2. A large portion of the water use is lost in fractures and pores in the rock down the drill hole but the majority is returned up the hole to remove the cuttings.
3. Effects of this water input on ground water and permafrost are generally

- infiltration changes
 - other: _____
 - N/A
4. accepted to be minor and localized.
 1. The return water will be directed towards a natural sump, where the cuttings and mud will settle.
 2. This discharge will not be less than 100 metres away from the high water mark of any water body.

IMPACT

MITIGATION

2. Surface Water

- flow or level changes
- water quality changes
- potential for contamination of surface water
- water quantity changes
- drainage pattern changes
- temperature
- wetland changes / loss
- other: artesian waters
- N/A

1. An estimated 7200 cubic metres of water will be used per year
2. Water will be drawn from the nearest water body of sufficient size.
1. The disposal of water will consist of rock cuttings produced while drilling, and natural bentonite mud.
2. All drilling fluids will be non toxic
3. The return water will be discharged towards a natural sump, where the cuttings and mud will settle.
4. This discharge will not be less than 100 metres away from the high water mark of any water body.
1. All drilling fluids will be non toxic
2. This discharge will not be less than 100 metres away from the high water mark of any water body.
3. Spill Contingency Plan is will be in place
1. An estimated 7200 cubic metres of water will be used per year
2. Water will be drawn from the nearest water body of sufficient size.
1. If a drill hole encounters an artesian well situation, the hole will be plugged in such a manner that the permanently prevent any further outflow of water.

IMPACT

MITIGATION

3. Noise

- noise increase
- noise in/near water
- other: _____

1. The operation of drilling and helicopter equipment will increase the ambient noise level in the target areas.

N/A

IMPACT

MITIGATION

4. Land

geologic structure changes

soil contamination

1. A Spill Contingency Plan will be in place
2. In the event of a spill the NWT 24-Hour Spill Line will be called.

buffer zone loss

soil compaction & settling

1. Due to the sparse nature of the tree cover in the project area, it is possible that some drilling set ups will not require clearing.
2. In the case, where there is tree cover, the maximum footprint will be approximately 250 square metres.

destabilization / erosion

permafrost regime alteration

1. A large portion of the water use is lost in fractures and pores in the rock down the drill hole but the majority is returned up the hole to remove cuttings.
2. Effects of this water input on groundwater and permafrost are generally accepted to be minor and localized.

other: _____

N/A

IMPACT

MITIGATION

5. Non Renewable Natural Resources

resource depletion

1. This project will not deplete the non-renewable natural resources.

other: _____

N/A

IMPACT

MITIGATION

6. Air / Climate / Atmosphere

greenhouse gases

1. The use of diesel fuel will create a relatively small amount of emissions that will be quickly dispersed.
2. The effect on air quality is expected to be minimal.

other: _____

BIOLOGICAL ENVIRONMENT**IMPACT****1. Vegetation**

- species composition
- species introduction
- loss of timber along the seismic lines
- potential forest fire hazard
- damage to ground vegetation and permafrost
- toxin / heavy accumulation
- other: _____
- N/A

IMPACT**2. Wildlife & Fish**

- effects on rare, threatened or endangered species
- fish population changes
- waterfowl population changes
- breeding disturbances
- population reduction
- species diversity change

MITIGATION

- 1. Drill set up sites will be chosen in advance to make use of the sparse tree cover in the project area
- 2. The helicopter will also make use of natural clearings near the drill site in order to minimize the disturbance of trees
- 1. A large portion of the water use is lost in fractures and pores in the rock down the drill hole but the majority is returned up the hole to remove cuttings.
- 2. Effects of this water input on groundwater and permafrost are generally accepted to be minor and localized.
- 1. All drilling fluids will be non toxic

MITIGATION

- 1. The *Species at Risk Act (SARA)* came into full effect on June 1, 2004. Species at risk that may be encountered in this area include, but are not limited to: Peregrine falcon (subspecies *Anatum*), listed as a threatened species on Schedule 1 of SARA and Short-eared Owl, listed as a species of Special Concern on Schedule 3 of SARA. In addition, the Grizzly Bear and Wolverine (Western Population) are both listed as species of Special Concern by COSEWIC.
- 2. Impact on wildlife in the area is expected to be minimal and of a limited duration. Waste management is an effective tool to minimize encounters with wildlife. Fixed wing and helicopter operators are trained to minimize encounters with wildlife.
- 1. The drilling activity will ensure that any petroleum fluids are stored more than 100 metres away from any water body.
- 2. The water intake for use of the drill will have screens in accordance with DFO specifications
- 1. Helicopter operators are forced by regulation to minimize contact with wildlife and bird nesting sites, and such procedures will be followed.

behavioral changes (identify)

habitat changes / effects

game species effects

1. Impact on wildlife in the area is expected to be minimal and of a limited duration. Waste management is an effective tool to minimize encounters with wildlife. Fixed wing and helicopter operators are trained to minimize encounters with wildlife.
2. Helicopter operators are forced by regulation to minimize contact with wildlife and bird nesting sites, and such procedures will be followed.
3. The operation of drilling and helicopter equipment will increase the ambient noise level in the target areas.
4. If the wildlife manager sees that there is a disturbance to the surrounding wildlife, such as migrating caribou, the operating schedule will be adjusted accordingly.

toxins / heavy metals

forestry changes

agricultural changes

other:

N/A

INTERACTING ENVIRONMENT

IMPACT

MITIGATION

1. Habitat and Communities

predator-prey

wildlife habitat / ecosystem composition changes

1. Prior to the activity at a particular drill site, photographs will document the condition of the terrain.
2. Throughout the duration of the drilling, Hunter Bay personnel will inspect the drilling operation.
3. Prior to completion of drilling the hole is plugged. All reasonable attempts will be made to retrieve the drill casings and rods from the hole. In the event that the casing gets stuck, it will be cut below the level of the ground surface.
4. After the drill has been dismantled and moved away from the drill site, the operating manager from Hunter Bay Resources will inspect the area.
5. The inspector will compile a list of required restorations to the individual site. The drill site will then be immediately restored.
6. Restoration may include leveling of disturbed soil, treatment of hydrocarbon disturbed soil, and removal of all garbage waste.
7. Restoration will be documented and pictures will be taken of the restored site.

reduction / removal of keystone or endangered species

removal of wildlife corridor or buffer zone

other: _____

N/A

IMPACT

2. Social and Economic

planning / zoning changes
or conflicts

increase in urban facilities
or services

rental house

airport operations /
capacity changes

human health hazard

impair the recreational use
of water or aesthetic quality

affect water use for other
purposes

affect other land use
operations

quality of life changes

MITIGATION

1. Under the Draft 1-Land Use Plan, most of the project area including Hunter Bay, Doghead Peninsula, Boadway Island, Cornwall Island, and Stevens Island, has been identified as potential "Conservation Areas". It is identified as the Caribou Point Conservation Zone. The primary goal of Conservation Areas is to ensure that traditional, cultural, heritage, and bio-physical values are maintained; therefore all surface and sub-surface development activities, except for low impact recreation and tourism are prohibited.
2. The Mariner target site, Mile Lake target site, and Devious Lake target site are within "Special Management Areas". "Special Management Area includes the shoreline of Great Bear Lake, where mineral exploration and development is not prohibited.
3. This project would not meet the criteria of an acceptable land use within a "Conservation Area", however no approved Land Use Plan exists at the present time.
4. This project would meet the criteria of an acceptable land use within a "Special Management Area" while complying with the provisions outlined, including adequate public consultation and mitigative measures to ensure the protection of water, land, wildlife and heritage resources.

1. Hunter Bay is in the process of negotiating with the Deline Land Corporation to hire local personnel from the community of Deline.
2. Hunter Bay Resources will endeavor to utilize local labor when available and qualified.
3. Hunter Bay Resources is also planning to use the services of Great Slave Helicopters and NorthWright Air. These companies have economic partnerships with the Deline Land Corporation.
4. Hunter Bay Resources is in the process of discussing other partnerships with the Deline Land Corporation, and is open to future negotiations on alliances with the Deline Land Corporation.

public concern

other: _____

N/A

IMPACT

MITIGATION

3. Cultural and Heritage

affects to historic property

increased economic pressure

changes to or loss of historic resources

change to or loss of archaeological resources

increased pressure on archaeological sites

change to or loss of aesthetically important site

affects to aboriginal lifestyle

other: _____

- 1. Hunter Bay is in the process of negotiating with the Deline Land Corporation to hire local personnel from the community of Deline.
 - 2. Hunter Bay Resources will endeavor to utilize local labor when available and qualified.
 - 3. Hunter Bay Resources is also planning to use the services of Great Slave Helicopters and NorthWright Air. These companies have economic partnerships with the Deline Land Corporation.
 - 4. Hunter Bay Resources is in the process of discussing other partnerships with the Deline Land Corporation, and is open to future negotiations on alliances with the Deline Land Corporation.
- 1. Hunter Bay Resources will ensure that all historic sites and trapping lines outlined in the Traditional Knowledge Study will be avoided.
 - 2. Any discoveries of historic significance will be reported and avoided.
 - 3. Drilling activities are not expected to disturb historic features.
 - 1. Any discoveries of historic significance will be reported and avoided.
- 1. Hunter Bay Resources will ensure that all historic sites and trapping lines outlined in the Traditional Knowledge Study will be avoided.
 - 2. Any discoveries of historic significance will be reported and avoided.
 - 3. Drilling activities are not expected to disturb historic features.
- 1. Hunter Bay is in the process of negotiating with the Deline Land Corporation to hire local personnel from the community of Deline.
 - 2. Hunter Bay Resources will endeavor to utilize local labor when available and qualified.
 - 3. Hunter Bay Resources is also planning to use the services of Great Slave Helicopters and NorthWright Air. These companies have economic partnerships with the Deline Land Corporation.
 - 4. Hunter Bay Resources is in the process of discussing other partnerships with the Deline Land Corporation, and is open to future negotiations on alliances with the Deline Land Corporation.

PRELIMINARY SCREENER / REFERRING BODY INFORMATION
(CHECK ALL THAT APPLY)

	RA or DRA	ADVISE	PERMIT REQUIRED
Federal			
ATOMIC ENERGY CONTROL BOARD	○	○	○
CANADIAN HERITAGE	○	○	○
CANADIAN TRANSPORTATION AGENCY	○	○	○
ENVIRONMENT CANADA	○	✓	○
FISHERIES & OCEANS	○	✓	○
INDIAN AFFAIRS & NORTHERN DEVELOPMENT	○	✓	○
INDUSTRY CANADA	○	○	○
NATIONAL DEFENSE	○	○	○
NATIONAL ENERGY BOARD	○	○	○
NATURAL RESOURCES	○	○	○
PUBLIC WORKS & GOVERNMENT SERVICES	○	○	○
TRANSPORT CANADA	○	○	○
Territorial			
MUNICIPAL & COMMUNITY AFFAIRS	○	✓	○
PUBLIC WORKS & GOVERNMENT SERVICES	○	○	○
GNWT ENVIRONMENT and NATURAL RESOURCES	○	✓	○
TRANSPORTATION	○	○	○
STANTON TERRITORIAL HEALTH AUTHORITY	○	✓	○
PRINCE OF WALES NORTHERN HERITAGE CENTRE	○	✓	○
Boards			
GWICH'IN LAND & WATER BOARD	○	○	○
SAHTU LAND & WATER BOARD	✓	✓	✓
MACKENZIE VALLEY LAND & WATER BOARD	○	✓	○
MACKENZIE VALLEY EIRB	○	✓	○
SAHTU LAND USE PLANNING BOARD	○	✓	○
RENEWABLE RESOURCES BOARD	○	✓	○
LOCAL HEALTH BOARD	○	○	○
Aboriginal / First Nation			
SAHTU SECRETARIAT INCORPORATED	○	✓	○
DELINE LAND CORPORATION	○	✓	○
DELINE RENEWABLE RESOURCES COUNCIL	○	✓	○
ADJOINING LAND CLAIM	○	○	○
Local Government			
<u>Charter Community of Deline</u>	○	✓	○
Communities			
<u>(IDENTIFY)</u>	○	○	○
Non Governmental Organizations (NGO)			
<u>(IDENTIFY)</u>	○	○	○

REASONS FOR DECISION

(LIST ALL REASONS AND SUPPORTING RATIONALES FOR PRELIMINARY SCREENING DECISION)

- No significant adverse environmental impacts have been identified during the consultation and referral process.
- All potential environmental impacts can be mitigated with known technologies.
- The exploratory program will be of economic benefit to the Sahtu Region.

PRELIMINARY SCREENING DECISION	
✓	Outside Local Government Boundaries
○	The development proposal might have a significant adverse impact on the environment, <i>refer it to the EIRB.</i>
✓	<i>Proceed with regulatory process and/or implementation.</i>
○	The development proposal might have public concern, <i>refer it to the EIRB.</i>
✓	<i>Proceed with regulatory process and/or implementation.</i>
○	Wholly within Local Government Boundaries
○	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, <i>refer it to the EIRB.</i>
○	<i>Proceed with regulatory process and/or implementation.</i>
○	The development proposal might have public concern, <i>refer it to the EIRB.</i>
○	<i>Proceed with regulatory process and/or implementation.</i>

Preliminary Screening Organization

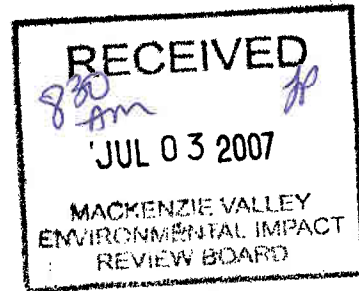
Sahtu Land & Water Board _____

Signatures

 _____



SAHTU Land & Water Board
P.O. Box 1
Fort Good Hope, NT X0E 0H0
Telephone: (867) 598-2413
Fax: (867) 598-2325
E-mail: sahtuexd@allstream.net



File: S07C-004

Facsimile Cover Sheet

To: MVEIRB **Fax Number:** (867) 766-7074
Attention: Martin Haefele, Environmental Assessment Officer
From: George Govier
Number of Pages (incl. cover): 11 **Date:** June 29, 2007
Subject: Land Use Permit Application - S07C- 004
Mineral Exploration – McTavish Arm, Great Bear Lake
Deline District, Sahtu Settlement Area
Preliminary Screening

1. Please find attached the Preliminary Screening for the subject mineral exploration program. If you have any questions or concerns, please do not hesitate to contact our office.
2. Your thoughts and comments always welcome.

George Govier
Executive Director