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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

Effective January 1, 2004

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WATER LICENCE APPLICATION FORM

Application for: (check one)

___ **New** ___ **Amendment** X **Renewal** ___**Assignment**

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Ian Neill
309 Court St. South
Thunder Bay, Ontario
P7B-2Y1
Phone: 604-759-0473
Fax: 807-345-0284
e-mail: ian.neill@wolfdenresources.com

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Wolfden Resources
309 Court St. South
Thunder Bay, Ontario
P7B 2Y1
Phone: 807-346-1668
Fax: 807-345-0284
e-mail: sandrarickard@wolfdenresources.com

Nunavut Water Board
APR 27 2005
Public Registry

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

High Lake is located approximately 550 km North-Northeast of Yellowknife in the Kitikmeot region of Nunavut.

Latitude: 67 22' 42" Longitude: 110 50' 22" NTS Map No. 76M/7 Scale 50:000

4. **DESCRIPTION OF UNDERTAKING** (attach plans and drawings)

The main water using components of the undertaking include the operation of a 35 man camp and the supply of water to 3 diamond drill units. The attached map shows the location of the existing camp and the approximate locations of the proposed regions for surface drilling. Proposed drilling will total about 20,000 m. Surface geophysics will also be conducted in the region. Personnel for both of these undertakings as well as appropriate support staff will be based from the camp at High Lake.

Other planned activities for the coming field season include:
Transport to site and storage of fuel for operations
Transport of drill core to camp for logging, sampling, and storage
Inspection and reclamation of drill set-ups upon drill hole completion
Camp clean up and reclamation including some construction of temporary structures

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in "**bold**")

___ **Industrial**
___ **Mining and Milling**
___ **Municipal** (includes camps/lodges)
___ Power
___ Agricultural
___ **Conservation**
___ Recreational
X **Miscellaneous** (includes exploration/drilling)
(describe):___**exploration drilling and supporting camp**

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

X To obtain water
___ To modify the bed or bank of a watercourse
X To alter the flow of , or store. water
___ To cross a watercourse
___ To divert a watercourse
___ Flood control
___ Other (describe): _____

Water will be used to supply the drills and camp (showers, kitchen, laundry, rock saw). This will necessitate the temporary storage of water in large tanks located at the drills and at the camp and core shack.

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

100m³ (this is an increase from the last permitted amount which was 60)

90 % of water would be returned to local sources after passing through settling sumps and ground filtration. Actual volume of water lost in drilling is estimated at 6m³ per day. This amount is consumed downhole at the bit face for cooling purposes. The remaining water returns back up the hole where it is contained, settled in tanks to remove any particulate matter, and re-cycled in a closed circulation system. For 3 drills operating in other words, approximately
18-20m³ will be consumed per day.

The camp will use an estimated 5m³ per day. Grey water generated by the kitchen, the showers, and the laundry facilities is collected and settled in a tank before being pumped to a natural sump behind camp. This allows percolation and filtration through the soil to occur.

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

X Sewage - Pacto toilets are used containing all human waste in doubled plastic bags which are collected daily and incinerated along with other burnable solid and semi solid wastes.

X Greywater – approx. 5m³ per day. Grey water is settled in tanks and then pumped to a natural sump behind camp and approximately 100 m. from the nearest water body. This water is from the kitchen sink, dry sinks, and showers and will contain at times small food particles, animal fats, and soap/shampoo residues.

X Sludges – approx 75m³ of water is circulated through the closed systems of the 3 drills during a day of drilling. Cuttings and sludges are settled in tanks and then sludge is bagged for disposal and disposed of in natural sumps located at least 50m. from any water bodies. A long drill hole may produce up to 1m³ of this material for disposal. Salt used occasionally down the hole to prevent freezing is sufficiently diluted by water to be insignificant as a constituent of these sludges.

X Waste oil - waste oil is collected and stored in sealed 45 gallon drums clearly marked as to their contents and removed from site by aircraft to be disposed of in Yellowknife at the incineration facility.

X Bulky Items/Scrap Metal - All scrap metal is collected and stored in 45 gallon drums which are wired shut and then removed from the site by aircraft to be disposed of in Yellowknife at the refuse facility.

X Solid Waste – All burnable solid waste is incinerated in a diesel fired forced air furnace located onsite and capable of disposing 64 Kg of waste/hour. (rating as listed on furnace supplied from Westland Incinerators) This waste includes kitchen wastes, sewage, paper and cardboard, any fuel or oil soaked materials and plastics. An estimated 6 large garbage bags of waste are incinerated on a daily basis. Ashes and any un-burned material are removed on a daily basis and added to the 45 gallon drums that contain scrap metal for removal from site.

X Hazardous Materials – No hazardous materials are stored or made use of onsite with the exception of lead-acid batteries and petroleum products. Lead-Acid batteries are removed from the site for disposal in Yellowknife.

9. PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND	X Yes ___ No	If no, date expected _____
Regional Inuit Association	X Yes ___ No	If no, date expected _____
Commissioner	_ Yes ___ No	If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

The region in question does not fall along migration routes and therefore does not directly impact the wildlife that make use of these routes. High Lake itself has shown to be void of fish by independent environmental studies conducted by Gartner Lee limited in 2004. This corresponds to historical records of the property dating back to the initial occupation of the present camp location in the 1950's. Nonetheless, water intakes are equipped with screens. Large mammals and other species of birds are rarely seen in the vicinity of the camp. Geophysics will occur predominantly during the winter months and so will have a minimal impact on local vegetation. Apart from the localized activity surrounding the immediate area of the camp and drill sites, vegetation will not be greatly impacted. Direct impacts on the environment would therefore be fairly limited.
Removal of water volume from proposed water bodies would of course be one direct impact. Some local noise around the camp (from generator), around the proposed drill sites, and from the helicopter and occasional aircraft is to be expected.

NIRB Screening X Yes ___ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No

11. (Continued)

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

In the unlikely event of some occurrence necessitating compensation, negotiations would proceed to determine the appropriate compensation for the act.

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Major Drilling
337 Old Airport Rd.
PO Box 1377
Yellowknife, NT
X1A 2P1

contracted to provide all diamond drilling
Phone 867 873 3358

Gartner Lee
840 7th Ave. SW suite 1605
Calgary, Alta.
T2P 3G2

- contracted to perform environmental base line studies
Phone 403 262 4299

Great Slave Helicopters Bag 7500 Yellowknife, NT X1A 2R3	contracted to provide helicopter transportation on site Phone 867 873 2081
1984 Enterprises 201 – 750 Denman St. Vancouver, BC V6G 2L5	contracted to provide cooking staff and first aid Phone 604 736 8142
Discovery Mining Services 101 – 487 Range Lake Rd. PO Box 2248 Yellowknife, NT X1A 3R9	contracted to provide expediting services Phone 867 920 4600

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) X Yes ___ No If no, date expected _____

Inuktitut/English Summary of Project X Yes ___ No If no, date expected _____

Application fee $30.00 (Payee Receiver General for Canada) X Yes ___ No If no, date expected _____

Water Use fee (see Section 9 of the *NWT Waters Regulations;* Payee Receiver General for Canada)
___ Yes ___ No If no, date expected _____

15. PROPOSED TIME SCHEDULE

___ Annual (or) X Multi Year

Start Date: April 31st, 2005 Completion Date: November 1st, 2006

Ian Neill	Project Manager – High Lake		April 21st, 2005
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board use only

APPLICATION FEE **Amount: $**_____ **Pay ID No.:** _____

WATER USE DEPOSIT **Amount: $**_____ **Pay ID No.:** _____