



Effective January 1, 2004

P.O. Box 119  
GJOA HAVEN, NU X0E 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369  
KATIMAYINGI

kNK5 wmoEp5 vtmpq  
NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN

## WATER LICENCE APPLICATION FORM

Application for: (check one)

New     Amendment     Renewal     Assignment

<b>LICENCE NO:</b> (for NWB use only)	
<b>1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE</b>  Mr. Andrew Mitchell Project Manager Wolfden Resources Inc. 403 – 1113 Jade Court Thunder Bay, Ontario P7B 6M7  Phone: 807 346-1668 Fax: 807 345-0284 e-mail andrew.mitchell@wolfdenresources.com	<b>2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)</b>  Wolfden Resources Inc. 403 – 1113 Jade Court Thunder Bay, Ontario P7B 6M7  Phone: 807 346-1668 Fax: 807 345 - 0284 e-mail andrew.mitchell@wolfdenresources.com
<b>3. LOCATION OF UNDERTAKING</b> (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.  The proposed Weatherhaven camp is located at: Latitude: 67° 22' 24" N Longitude: 110° 51' 33" W The proposed Sand Lake camp is located at: Latitude: 67° 29' 12" N Longitude: 110° 49' 16" W NTS Map No.: 76M/7 and 76M/10      Scale: 1:50,000	
<b>4. DESCRIPTION OF UNDERTAKING</b> (attach plans and drawings)  The undertaking will consist of the following activities: <ul style="list-style-type: none"><li>• Mobilization from Ulu to the High Lake and Sand Lake sites</li><li>• Development of a 12 km all-season access road, including three watercourse crossings</li><li>• Construction of a 1450m gravel airstrip near Sand Lake</li><li>• Construction of a 30-person temporary construction camp (Sand Lake camp)</li><li>• Construction of a 70-person seasonal camp near High Lake (Weatherhaven camp)</li><li>• Surface compaction and dust suppression for road/airstrip construction and maintenance activities</li></ul>	

A complete description of proposed activities is provided in the appended Project Description, Relicensing Program, High Lake Project.

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

<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Mining and Milling	<input type="checkbox"/> Conservation
<input type="checkbox"/> Municipal (includes camps/lodges)	<input type="checkbox"/> Recreational
<input type="checkbox"/> Power	<input checked="" type="checkbox"/> <b>Miscellaneous</b> (includes exploration/drilling) <u>Water withdrawal and waste disposal for camp use and construction activities; watercourse crossing,</u>

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

**6. WATER USE**

<input checked="" type="checkbox"/> To obtain water	<input type="checkbox"/> To divert a watercourse
<input type="checkbox"/> To modify the bed or bank of a watercourse	<input type="checkbox"/> Flood control
<input type="checkbox"/> To alter the flow of, or store, water (store)	<input type="checkbox"/> Other (describe): _____
<input checked="" type="checkbox"/> To cross a watercourse	

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

Total water use will not exceed 100 m<sup>3</sup>/day. Water for the proposed Weatherhaven camp will be withdrawn from lake L22, located west of the proposed Weatherhaven camp site. Water for the temporary construction camp located near the proposed airstrip will be withdrawn from Sand Lake.

Camp Water Use

Weatherhaven Camp: Approximately 17.5 m<sup>3</sup>/day  
Sand Lake Camp: Approximately 7.5 m<sup>3</sup>/day

Other

Road construction and maintenance; dust suppression: Up to 75m<sup>3</sup>/day

Although camp water use will fluctuate with the number of persons on site throughout the construction period, total water use for all proposed activities will not exceed 100 m<sup>3</sup>/day.

All domestic sewage and greywater generated from the Weatherhaven camp will be treated onsite to acceptable standards utilizing a Rotating Biological Contactor system. Treated effluent from the Weatherhaven camp will be discharged into Lake L20. Recent studies indicate that this lake does not support fish. The Sand Lake camp will be equipped with Pacto toilets. Toilet waste will be incinerated. Greywater from the kitchen and shower drains will be discharged to a sump located a minimum of 30 m from the high water mark of surrounding surface water bodies. Camp locations and the above mentioned water bodies are illustrated in Figures 1 and 2 in the appended Project Description.

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

<input checked="" type="checkbox"/> Sewage	<input checked="" type="checkbox"/> Waste oil
<input checked="" type="checkbox"/> Solid Waste	<input checked="" type="checkbox"/> Greywater
<input checked="" type="checkbox"/> Hazardous	<input type="checkbox"/> Sludges
<input checked="" type="checkbox"/> Bulky Items/Scrap Metal	<input type="checkbox"/> Other (describe): _____

**Sewage & Greywater**

Domestic sewage and grey water generated from camp activities will be treated to acceptable standards using a Rotating Biological Contractor system. This unit is designed by Biodisk Corporation, and is a small flow wastewater treatment system that uses a rotating biological contactor (RBC) as the form of aeration. The Biodisk unit has been designed for the following characteristics:

Design effluent BOC	300mg/l
Design influent SS	300 mg/l
Outdoor temperature	-40° to + 25° C
Indoor temperature	10° to 25°C
Location	Outdoors
Operating	24 hr/365 days

This unit has been designed to meet the following effluent requirements:

BOD	40mg/l
SS	60mg/l
Fecal coliform	10,000 CFU/100ml
Oil and grease	<5 mg/l
PH	6-9

Efficacy of this treatment has been successfully demonstrated at Wolfden's camp at the Ulu property. Additional information on the advantages of the Biodisk can be found at [www.Biodisk.ca](http://www.Biodisk.ca). The quantity of sewage and grey water produced will vary with the number of personnel on site at any given time, however, combined sewage and grey water discharge is not expected to exceed 17.5 m<sup>3</sup>/day at the Weatherhaven camp, and 7.5 m<sup>3</sup>/day at the Sand Lake construction camp.

**Solid Waste**

Solid waste will be disposed of through utilization of a high efficiency incinerator for combustible, non-hazardous solid waste, located 0.5 km from camp. All combustible waste, including all food waste, will be incinerated on a regular basis to deter wildlife from the campsite.

**Hazardous Waste**

Any waste deemed hazardous will be shipped offsite to a proper disposal facility. All hazardous waste will be managed in accordance with regulatory requirements and the Nunavut Department of Environment guidelines. Hazardous waste will be removed from the site, and any requiring treatment or disposal will be packaged in accordance with TDG regulations and shipped using registered carriers to approved facilities. All shipments of hazardous waste will be tracked using the manifest system in compliance with Nunavut guidelines<sup>1</sup> and the federal Interprovincial Movement of Hazardous Waste Regulations (SOR/2002-301).

<sup>1</sup> Department of Sustainable Development, 2002 Environmental Guideline for General Management of Hazardous Waste.  
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Scrap Metal

Scrap metal will be stored in drums until it can be removed from site for proper disposal or recycling.

Waste Oil

Engine waste oil will be stored in drums on site and flown off site for disposal.

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

Please refer to Tables 1 and 2 attached to this application.

Table 1 provides a list of the active rights, licenses and permits related to this water license application. Table 2 lists the authorizations that are being applied for in relation to the proposed Relicensing Program.

DIAND                     Yes  No    If no, date expected \_\_\_\_\_

Regional Inuit Association                     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.)

NIRB Screening                     Yes  No    If no, date expected \_\_\_\_\_

The NIRB screening Decision Report (NIRB file 06EN048) was issued on August 11, 2006, a copy of which is attached to this application. A full listing of predicted environmental impacts and proposed mitigation measures is provided in Section 6 of the Project Description.

**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.

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?

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

Potential contractors and subcontractors are not known at this time. Selection of contractors will take place closer to the commencement of construction activities, and can be forwarded to the Water Board at that time if required.

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

A comprehensive biophysical and socioeconomic baseline program was initiated in 2004 to provide background data on existing local conditions in regards to wildlife, vegetation, water, fish and aquatic life, and archaeology. Consultation and traditional knowledge gathering are also key components of this work. This baseline data collection has been undertaken to support the environmental impact assessment for the proposed High Lake mining project, and has contributed to the broader knowledge base of this area. This information and knowledge has been incorporated into the proposed Relicensing Program design, impact assessment and proposed mitigation measures.

**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)  
X Yes        No If no, date expected \_\_\_\_\_

**15. PROPOSED TIME SCHEDULE**

       Annual (or) X Multi Year

Start Date: February 1, 2007

Completion Date: March 1, 2012

Andrew Mitchell Project Manager, High Lake  
 Name (Print) Title (Print)



September 6, 2006

Signature

Date

For Nunavut Water Board use only

**APPLICATION FEE** Amount: \$ \_\_\_\_\_ Pay ID No.: \_\_\_\_\_

**WATER USE DEPOSIT** Amount: \$ \_\_\_\_\_ Pay ID No.: \_\_\_\_\_

Table 1 Active permits, licenses and other approvals related to this application

Property	Permit/License No.	Regulatory Body	Type	Expiry
High Lake Property	NWB2HIG0506	Nunavut Water Board	Water License Type B exploration and camp use	Nov. 1 2006
	76M/7-1-4	Dept. Indian Affairs and Northern Development	Surface Lease for existing camp at High Lake	Dec.31 2006
	N2006X0019	Dept. Indian Affairs and Northern Development	Land Use Permit for winter road	Aug. 21 2008
	KTL303C006	Kitikmeot Inuit Association	Land Use License exploration activities	April 30, 2007
	ML2372-2385; ML3290	Dept. Indian Affairs and Northern Development	Mining Lease	2013; 2010

Table 2 Authorizations being applied for in relation to the Relicensing Program

Activity	Regulator	Type of Permit
Establish winter trail from Ulu to Sand Lake, January/February 2007	KIA	IOL Land Use License
Construct Airstrip and temporary camp at Sand Lake Construct new Weatherhaven Camp near High Lake Construct 12 km all-season road between camp and airstrip (all the above activities scheduled in 2007)	KIA	Commercial Lease
All-season road construction	DIAND	Land Use Permit for 1-km portion of road that crosses Crown land
Road construction, including installation of culverts and bridge at specific creek crossings	Transport Canada – Navigable Waters Protection Program	Approval of Works (if deemed navigable)
Gravel extraction for airstrip, camp and road construction	KIA	Quarry Concession Permit
Water taking and waste disposal during Relicensing Program	NWB	Water License Type B