



P.O. Box 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

GENERAL WATER LICENCE APPLICATION (APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: Guide to Completing and Submitting a Water Licence Application for a New Licence for more information about this application form.

LICENCE NO: (for NWB use only)	
<p>1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION (name, address)</p> <p>Benoit Beauchamp Arctic Institute of North America University of Calgary Calgary, AB T2N 1N4</p> <p>Phone: 403 220-7516 Fax: 403 220-4609 e-mail: bbeauch@ucalgary.ca</p>	<p>2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address)</p> <p>Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter.)</p>
<p>3. NAME OF PROJECT (including the name of the project location)</p> <p>Arctic carbonates, sandstones and volcanic rocks, NW Ellesmere Island</p>	
<p>4. LOCATION OF UNDERTAKING</p> <p>Project Extents</p> <p>NW: Latitude: (81° 11' 35" N) Longitude: (83° 44' 43" W) NE: Latitude: (81° 11' 35" N) Longitude: (80° 30' 23" W) SE: Latitude: (80° 49' 27" N) Longitude: (80° 30' 23" W) SW: Latitude: (80° 49' 27" N) Longitude: (83° 44' 43" W)</p> <p>Camp Location(s)</p> <p>Latitude: (81° 01' 00" N) Longitude: (81° 33' 00" W) Latitude: (80° 53' 00" N) Longitude: (83° 06' 00" W) Latitude: (81° 09' 00" N) Longitude: (82° 56' 00" W) Latitude: (80° 50' 00" N) Longitude: (81° 31' 00" W) Latitude: (80° 57' 00" N) Longitude: (80° 44' 00" W)</p>	
<p>5. MAP - Attach a topographical map, indicating the main components of the undertaking.</p> <p>NTS Map Sheet No.: 340B / 340C Map Name: Greely Fiord West / Otto Fiord Map Scale: 1:250,000</p>	

6. NATURE OF INTEREST IN THE LAND - Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

Sub-surface

☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Mineral Lease from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

Surface

☐ Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ IOL Authorization from Kivalliq Inuit Association (KivIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ IOL Authorization from Qikiqtani Inuit Association (QIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Commissioner's Land Use Authorization
Date (expected date) of issuance: _____ Date of expiry: _____

X Other: Small-scale university research on Crown Land (NW Ellesmere Island, Nunavut) supported by PCSP.

Date (expected date) of issuance: _____ Date of expiry: _____

Name of entity(s) holding authorizations: _____

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

Indicate the land use planning area in which the project is located.

X North Baffin

☐ South Baffin

☐ Akunnig

☐ Keewatin

☐ Sanikiluaq

☐ West Kitikmeot

Is a land use plan conformity determination required?

☐ Yes

X No

If Yes, indicate date issued and attach copy _____

If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION

Is an Article 12 Part 4 screening determination required?

☐ Yes

☒ No

If Yes, indicate date issued and attach copy _____

If No, provide written confirmation from NIRB confirming that a screening determination is not required.

9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.

Small-scale university research supported by PCSP. Four to six people will set up four to six tents at five localities on NW Ellesmere, and will spend 4 to 6 days at each locality on average (summary of research proposal is attached to this application)

10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.

11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.

☐ Industrial

☐ Agricultural

☐ Mining and Milling (includes exploration/drilling/exploration camps)

☐ Conservation

☐ Municipal (includes camps/lodges)

☐ Recreational

☐ Power

☒ Miscellaneous (describe below):

Small-scale university research supported by PCSP. Four to six people will set up four to six tents at five localities on NW Ellesmere, and will spend 4 to 6 days at each locality on average (summary of research proposal is attached to this application)

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

Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. Indicate which SIG(s) are applicable to your application.

☐ Hydrostatic Testing

☐ Tannery

☐ Tourist / Remote Camp

☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil

☐ Onshore Oil and Gas Exploration Drilling

☐ Mineral Exploration / Remote Camp

☐ Advanced Exploration

☐ Mine Development

☐ Municipal

☐ General Water Works

☐ Power

- 12. WATER USE** - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.
- X To obtain water for small fly camps**
- | | |
|--|---|
| <input type="checkbox"/> To obtain water for industrial purposes | <input type="checkbox"/> To divert a watercourse |
| <input type="checkbox"/> To cross a watercourse | <input type="checkbox"/> To modify the bed or bank of a watercourse |
| <input type="checkbox"/> To alter the flow of, or store water | <input type="checkbox"/> Flood control |
- Other:
- 13. QUANTITY AND QUALITY OF WATER INVOLVED** - For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.
- Name of water source(s) (show location(s) on map):
Water to be used will come from melting snow patches or small unnamed creeks if there is no snow available
- Describe the quality of the water source(s) and the available capacity:
Quality is excellent as snow is pure / same quality for small creeks which are fed by melting snow patches. Available capacity is unlimited
- Provide the overall estimated quantity of water to be used:
40 litres/day (equal to .04 m³/day)
- Provide the estimated quantity(s) of water to be used from each source:
40 litres/day (equal to .04 m³/day) from melting snow patches and small creeks
- Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)
20 litres/day for drinking water (0.02 m³/day)
10 litres/day for personal use (0.01 m³/day)
10 litres/day for grey water (0.01 m³/day)
- Describe the method of extraction(s):
Scooping water with a plastic container such as a salad bowl or a water bottle
- Estimated quantity(s) of water returned to source(s):
No water will be returned to the source
- Describe the quality of water(s) returned to source(s):
No water will be returned to the source

14. WASTE – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

- | | |
|--|---|
| <input type="checkbox"/> Sewage | <input type="checkbox"/> Waste oil |
| X Solid Waste | X Greywater |
| <input type="checkbox"/> Hazardous | <input type="checkbox"/> Sludges |
| <input type="checkbox"/> Bulky Items/Scrap Metal | <input type="checkbox"/> Contaminated soil and/or water |
| <input type="checkbox"/> Animal Waste | |
| <input type="checkbox"/> Other (describe): | |

HUMAN WASTE: 2 to 4 kg per day. Burned as much as possible.

Unburned waste to be sealed and shipped to Resolute for disposal.

COMBUSTIBLE WASTE: 1 to 2 kg per day. Burned as much as possible.

Unburned material packed and shipped to Resolute for disposal.

NON-COMBUSTIBLE WASTE: 1 to 2 kg per day. Crushed and bagged.

Shipped to Resolute for disposal

15. QUANTITY AND QUALITY OF WASTE INVOLVED – For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Grey water	Water left after washing dishes	Less than 0.01 cubic metre (less than 10 litres) per day of grey water will be produced		Grey water to be disposed in small dug out pits; pits to be backfilled after usage
Human waste	Solid and liquid by-products of human digestion	2 to 4 kg per day	Burned as much as possible.	Unburned material packed and shipped to Resolute for disposal.
Non-combustable waste	Mostly food tins and ashes	1 to 2 kg per day	Crushed and bagged	Shipped to Resolute for disposal

16.	<p>OTHER AUTHORIZATIONS – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:</p> <p>Authorization: Logistics support has been applied for to PCSP. A Research License has been applied for this research activity</p> <p>Administering Agency: Nunavut Research Institute (NRI) Polar Continental Shelf Program (PCSP)</p> <p>Project Activity: Geoscientific research in support of graduate students projects at the university</p> <p>Date (expected date) of issuance: June 20 2011 Date of expiry: August 06 2011</p>
17.	<p>PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES - Describe direct, indirect, and cumulative impacts related to water and waste.</p> <p>Ours is a very small PCSP-supported operation which will leave no environmental impact. The grounds will be returned to their original pristine conditions with no visual or hidden impacts.</p>
18.	<p>WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER</p> <p>Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.</p> <p>There are no other known users of that water on NW Ellesmere Island</p> <p>Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.</p>
19.	<p>INUIT WATER RIGHTS</p> <p>Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO).</p> <p>Not applicable. This work is to be done on Crown Land and nothing we will do can affect the quality, quantity or flow of waters flowing through IOL.</p>
20.	<p>CONSULTATION – Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.</p>

21. SECURITY INFORMATION

Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults. The estimate must also include contingency factors appropriate to the particular work to be undertaken.

Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the *Mine Site Reclamation Policy for Nunavut*, Indian and Northern Affairs Canada, 2002.

22. FINANCIAL INFORMATION

Provide a statement of financial responsibility.

All members of the research team are part of the Department of Geoscience at the University of Calgary, Calgary, AB

If the applicant is a business entity, provide a list of the officers of the company.

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

23. STUDIES UNDERTAKEN TO DATE - List and attach copies of studies, reports, research, etc.

This is a new research project conducted by graduate students. We do not have publications yet.

24. PROPOSED TIME SCHEDULE – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

Construction

Proposed Start Date: _____ Proposed Completion Date: _____
(month/year) (month/year)

Operation

Proposed Start Date: June 20 2011 Proposed Completion Date: August 06 2011

Closure

Proposed Start Date: _____ Proposed Completion Date: _____
(month/year) (month/year)

Post - Closure

Proposed Start Date: _____ Proposed Completion Date: _____
(month/year) (month/year)

For each applicable phase of development indicate which season(s) activities occur.

Construction

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Operation

☐ Winter ☐ Spring ☒ **Summer** ☐ Fall ☐ All season

Closure

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Post - Closure

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

25. PROPOSED TERM OF LICENCE

Number of years (maximum of 25 years): **1 year**

Requested Date of Issuance: **June 20 2011** Requested Expiry Date: **August 30 2011**
(month/year) (month/year)

(The requested date of issuance must be at least three (3) months from the date of application for a type B water licence and at least one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's *Guide 5: Processing Water Licence Applications* for more information)

26. ANNUAL REPORTING – If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

27. CHECKLIST – The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

☐ Yes ☒ **No** If no, date expected: **To be obtained in June 2011 or before as part of the NRI Scientific Research Licence process**

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

☐ Yes ☒ **No** If no, date expected: **To be obtained in June 2011 or before as part of the NRI Scientific Research Licence process**

Completed General Water Licence Application form.

☒ **Yes** ☐ **No** If no, date expected _____

Information addressing Supplemental Information Guideline (SIG) , where applicable (see Block 11)

☐ **Yes** ☐ **No** If no, date expected _____

English Summary of Application.

☒ **Yes** ☐ **No** If no, date expected _____

Inuktitut and/or Inuinnaqtun Summary of Application.

☒ **Yes** ☐ **No** If no, date expected _____

Application Fee of \$30.00 CDN (Payee Receiver General for Canada).

☒ **Yes** ☐ **No** If no, date expected _____
Credit card information to be passed over the phone

Water Use Fee Deposit of \$30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in accordance with the Regulations at the time of issuance of the licence.

☒ **Yes** ☐ **No** If no, date expected _____
Credit card information to be passed over the phone

28. SIGNATURE

Benoit Beauchamp

Professor

March 15
2011

Name (Print)

Title (Print)

Signature

Date