

# SCIENTIFIC RESEARCH LICENCE APPLICATION LAND, FRESHWATER & MARINE BASED RESEARCH

NRI strongly recommends that applicants review the following documents prior to submitting an application: *Scientific Research Licencing Guidelines* and *Negotiating Research Relationships in Inuit Communities: A Guide for Researchers*.

For more information about the Nunavut Research Institute (NRI) please visit our web site [www.nri.nu.ca](http://www.nri.nu.ca)

## IMPORTANT

This application fulfills the requirements for the NIRB environmental screening. Please be advised that your application will not be processed until the application form, project summary, and maps are received.

### SECTION 1: APPLICANT INFORMATION

1a. Project Title Geology Research in Baffin Bay

1b. Project Number

Please indicate if applicant has submitted any previous application(s) to NRI Yes  No   
related to this project proposal?

If yes, please indicate the previous NRI licence number: 02 042 13R-M and 01 032 14N-M

Please indicate if applicant has submitted any previous application(s) to NIRB Yes  No   
related to this project proposal?

If yes, please indicate the previous NIRB project number(s): \_\_\_\_\_

2. **Applicant's full name and mailing address:**

<u>Calvin Campbell (NRCan)</u>	Phone: <u>902-426-8125</u>
<u>1 Challenger Drive, Dartmouth, NS</u>	Fax: <u>902-426-4104</u>
<u>B2Y 4A2</u>	Email: <u>cacampbe@nrca.gc.ca</u>

3. **Field Supervisor's name and mailing address:**

<u>Calvin Campbell (NRCan)</u>	Phone: <u>902-426-8125</u>
<u>1 Challenger Drive, Dartmouth, NS</u>	Fax: <u>902-426-4104</u>
<u>B2Y 4A2</u>	Email: <u>cacampbe@nrca.gc.ca</u>

4. **Other Personnel list (name, position, affiliation)**

<u>Ellen Kenchington (DFO)</u>	<u>Scientific Researcher</u>
<u>David Mate (CNGO &amp; CanNor)</u>	<u>Scientific Researcher</u>
<u>Robbie Bennett (NRCan)</u>	<u>Scientific Researcher</u>

### SECTION 2: AUTHORIZATION NEEDED

1. Identify all known regulatory authorizations required for the project (include all that may apply):

Y/N

	Regional Inuit Association: Land Use Permit/Exemption Certificate
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X	Nunavut Planning Commission: Plan Conformity Determination (Kivalliq, North Baffin only)
	Aboriginal Affairs, Northern Development Canada (GOC): Land Use Permit / Fuel Cache Notification
	Department of Fisheries and Oceans (GOC): Fisheries Research License, Marine Mammal transport license
	Environment Canada/Canadian Wildlife Service: Migratory Bird Research permit Environment
	Canada/Canadian Wildlife Service: Access to National Wildlife Area
	Parks Canada: National Parks Research Permit
	Community and Government Services (GN): Municipal Land Lease
	Culture and Heritage (GN): Archeology/Paleontology Research Permit
	Department of Environment (GN): Wildlife Research Permit

2. List the active permits, licences, or other rights related to the project proposal and their expiry date:

\_\_\_\_\_

\_\_\_\_\_

3. Have you applied for all authorizations required to conduct the project proposal activities?

X YES

NO

### SECTION 3: PROJECT PROPOSAL DESCRIPTION

1. Indicate the activities related to the project proposal:

<input type="checkbox"/>	Temporary camp (to be removed at end of field season)	<input type="checkbox"/>	Soil disposal/ soil storage
<input type="checkbox"/>	Permanent camp (to remain for life of authorization)	<input type="checkbox"/>	Incineration of combustible wastes and removal of non-combustible wastes
<input type="checkbox"/>	Construction of recreational or safety cabin	<input type="checkbox"/>	River/ stream/ lake crossing or work/ bridge
<input type="checkbox"/>	Temporary fuel storage (to be removed at end of field season)	<input type="checkbox"/>	Drainage alteration
<input type="checkbox"/>	Permanent fuel storage (to remain for life of authorization)	<input type="checkbox"/>	Geoscientific sampling by diamond drilling
<input type="checkbox"/>	Placement of structures for life of permit (other than camp or cabin – i.e. scientific instruments)	<input checked="" type="checkbox"/>	Geoscientific sampling by soil sampling
<input type="checkbox"/>	Placement of permanent structures (other than camp or cabin – i.e. scientific instruments)	<input type="checkbox"/>	Geoscientific sampling by trenching
<input type="checkbox"/>	Air surveys (i.e. geophysical, wildlife)	<input type="checkbox"/>	Geoscientific sampling by borehole core
<input checked="" type="checkbox"/>	Use of aircraft/watercraft/land vehicle for personnel drop-off and pick-up to project location	<input type="checkbox"/>	Blasting
<input type="checkbox"/>	Use of on-site mechanized vehicles (i.e. atv, snowmobile, truck, zodiac)	<input type="checkbox"/>	Channeling
<input type="checkbox"/>	Sewage or grey water disposal via sump	<input type="checkbox"/>	Excavation
<input type="checkbox"/>	Hazardous waste storage or disposal	<input type="checkbox"/>	Hydrological testing
<input type="checkbox"/>	Solid waste disposal	<input type="checkbox"/>	Abandonment and restoration
<input type="checkbox"/>	Chemical storage	<input type="checkbox"/>	Site restoration (fertilization/ grubbing/ scarification/ spraying/ recontouring)
<input type="checkbox"/>	Explosives storage	<input checked="" type="checkbox"/>	Research
<input type="checkbox"/>	Soil testing	<input type="checkbox"/>	Ecological survey
		<input type="checkbox"/>	Harvesting
		<input type="checkbox"/>	Removal of vegetation for scientific purposes
		<input type="checkbox"/>	Other:

**2. Personnel**

Total No. of personnel on \_\_\_\_\_ 59 \_\_\_\_\_ Total No. of days on-site \_\_\_\_\_ 35 \_\_\_\_\_

site = (A) \_\_\_\_\_ = (B) \_\_\_\_\_  
 \_\_\_\_\_ **2065** \_\_\_\_\_

**Total No. of Person days  
 (A) × (B) =**

**3. Timing**

*Period of operation:* August 13, 2015 to September 17, 2015  
*Proposed term of authorization:* August 13, 2015 to September 17, 2015

Please outline the phases of the proposed project (construction/ operation/ decommissioning) including the timing and scheduling of each phase.

Phase 1: Depart Halifax on August 14, arrive in Frobisher Bay on August 21 – Nunavut community participants join the ship; Phase 2: conduct scientific research until September 10; Phase 3: transit back to Halifax arriving on September 17.

**4. Location(s) of data collection:**

<b>Location Name</b>	<b>Region</b> North Baffin, South Baffin, Kivalliq, Kitikmeot	<b>Co-ordinates</b> Lat (degree / minute), Long (degree / minute)	<b>NTS Map Sheet #</b>	<b>Land Status</b> Crown, Commissioners', Inuit Owned
<b>Baffin Bay</b>	<b>Offshore North Baffin</b>	<b>Several sites, see map</b>		<b>Offshore - Crown</b>
<b>Davis Strait</b>	<b>Offshore North Baffin</b>	<b>Several sites, see map</b>		<b>Offshore – Crown and Inuit owned</b>
<b>Frobisher Bay</b>	<b>Offshore North Baffin</b>	<b>Several sites, see map</b>		<b>Inuit owned</b>

If the project proposal includes a **camp**, please provide the coordinates of the camp location  
 Lat (degree/minute) \_\_\_\_\_ Long (degree/minute) \_\_\_\_\_  
 NTS Map Sheet # (if different from above) \_\_\_\_\_

The Nunavut Impact Review Board may require additional location information in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.

**SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION**

Please attach a non-technical description of the project proposal, no more than 500 words, in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot). The project description should outline the following:

- Project Title
- Researcher's Name and Affiliation
- Project Location
- Timeframe
- Project Description
  - purpose
  - goals & objectives
  - method of transportation

- any structures that will be erected (permanent / temporary)
- restoration / abandonment plans
- Methodology
  - collection protocol
  - collection mechanisms
  - indicate why specific communities or individuals were selected for your research
- Data
  - short term & long term use of data
  - other uses of data
- Reporting
  - How will the research results be communicated to the individual participants, communities, regional and Nunavut organizations?
  - Will the research result in a publication?

## SECTION 5: MATERIAL USE

### 1. List equipment (including drills, pumps, aircrafts, vehicles etc.):

Equipment type and number	Size – dimensions	Proposed use
Piston Sediment Corer	50' x 4"	Collect sediment samples
Seabed camera system	3' x 5'	Photography and video of the seabed
CTD and Niskin water sampler	6" x 3'	Water properties collection
CCGS Hudson	297' x 50' x 22'	Research vessel
3.5 kHz echosounder	Attached to CCGS Hudson	Seabed imaging
Multibeam echsounder	Attached to CCGS Hudson	Detailed bathymetry data collection

### 2. Detail fuel and hazardous material use:

Fuel	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel		many	Stored onboard vessel (CCGS Hudson)
Gasoline			
Aviation fuel			
Propane			
Other			
Hazardous Materials and Chemicals		Total Amount of Hazardous Materials and Chemicals (in Litres)	
Concentrated HCl		2	On vessel in secure area
Concentrated acetone		10	On vessel in secure area
Hydraulic Oil		3	On vessel in secure area

**Will you cache fuel on Crown or Inuit Owned Lands to support field research activity**  
 YES                      X NO                      (Circle One)

If YES, please complete the table below; provide details for each planned fuel cache

Cache Size (amount of fuel in litres)	Fuel Type	Cache Location (UTM or Lat/Long)	Container Type/Size	Proposed Removal Date

Researchers must notify the Lands Division of AANDC of any fuel caches on Federal Crown Lands in Nunavut, notification is required within 30 days of establishing the cache. Researchers must also apply in advance to the appropriate Regional Inuit Association for permission to cache fuel on Inuit Owned Lands in Nunavut.

### 3. Detail daily water consumption rates

Daily amount (in Litres)	Proposed water retrieval methods	Proposed water retrieval (source) location
14,000	Desalinization by reverse osmosis onboard ship	offshore

Please note: You may use up to 50 cubic meters of water per day in Nunavut without obtaining a licence from the Nunavut Water Board, however, you must apply to The Nunavut Water Board for authorization to use water without a license.

Any water use in excess of 50 cubic meters of water may require a Class A license from the Water Board.

## SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS

### 1. List the types of waste:

Type of waste	Projected amount generated	Method of Disposal	Additional treatment procedures
Sewage (human waste)			
Greywater			
Combustible wastes			
Non-Combustible wastes			
Overburden (organic soil, waste material, tailings)			
Hazardous waste			
Other:	No wastes from vessel		All wastes stored onboard until return to home port (Halifax, NS)

### 2. Will you be incinerating combustible waste, removing all solid waste, and removing the ash generated from incineration?

P.O. Box 1720 Iqaluit, NU, X0A 0H0 • PHONE: 867-979-7279 • FAX: 867-979-7109 • email [mosha.cote@arcticcollege.ca](mailto:mosha.cote@arcticcollege.ca)

YES

NO

**3. Will you deposit sewage to a sump?**

**YES      X NO      (Circle One)**

**\*If yes, have you applied to the Nunavut Water Board for approval to deposit waste without a license (required for any deposit of sewage to a sump in Nunavut)**

**YES      NO      (Circle One)**

**SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS**

**1. List the community representatives that have been contacted and provide the minutes of the meetings if available:**

<b>Community</b>	<b>Name</b>	<b>Organization</b>	<b>Date Contacted</b>
Clyde River		Hamlet Council, HTA, CLARC	May 20 – 22, 2015
Pangnirtung		Hamlet Council, HTO, CLARC	May 25 – 27, 2015
Qikiqtarjuaq		Hamlet Council, HTO, CLARC	May 27 – 29, 2015

**2. Please identify any employment, contracting or training opportunities for Nunavut residents that may result from the project.**

**Research assistants from Clyde River, Qikiqtarjuaq and Pangnirtung will be hired to participate in the work onboard the research vessel.**

**3. Please identify any potential risks to the health, safety or livelihoods of Nunavut residents that may result from the project?**

**None**

**Describe and attach documentation regarding community support or concerns for the proposed project:**

**Meetings are planned with the groups listed above. Documentation of these meetings will be available after they are completed.**

**5. Is there a traditional knowledge component to this research project? If yes, please explain:**

**Any traditional knowledge shared during engagement meetings is incorporated into the project.**

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## SECTION 8: GENERAL QUESTIONS

1. Do you give NRI permission to publish project information in the Nunavut Research Institute Annual Compendium of Research Undertaken in Nunavut?

X YES

NO

2. If your research is related to climate change, do you agree to share your annual summary report with the Nunavut Climate Change Centre at [climatechange@gov.nu.ca](mailto:climatechange@gov.nu.ca)?

YES  No

**(Highlight or Check one)**

3. In addition to the application form, applicants are required to submit additional information in an electronic format to the Manager, Research Liaison, at [mosha.cote@arcticcollege.ca](mailto:mosha.cote@arcticcollege.ca). Please check that the following have been submitted to NRI:

- Project Summary -in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot)
- NTS Maps of the project

Applicant:

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Signature

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Title

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Date