

**Ege Bay Exploration Program
Type 'B' Water Licence Application**

**Attachment 2
Water Licence Application Form**



General Water Licence Application
(Application for a new Water Licence)

Document Date: April 2013

Application Submission Date:

12/07/2018
Month/Day/Year

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DOCUMENT MANAGEMENT

Original Document Date: April 2010

DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 4	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)	Update NWB logo	April 2013
(4)		
(5)		
(6)		
(7)		
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(9)		
(10)		



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**GENERAL WATER LICENCE APPLICATION
(APPLICATION FOR NEW WATER LICENCE)**

LICENCE NO: (for NWB use only)													
1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION (name, address) Thomas (Tom) Iannelli Head of Exploration Baffinland Iron Mines Corporation #300 – 2275 Upper Middle Road E. Oakville, ON L6H 0C3 Phone: (416) 364-8820, ext. 5024 Fax: e-mail: thomas.iannelli@baffinland.com	2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address) Richard Cook Knight Piésold Ltd. 1650 Main Street West North Bay, ON P1B 8G5 Phone: (705) 476-2165 Fax: (705) 474-8095 e-mail: rcook@knightpiesold.com Attach authorization letter: see Cover Letter												
3. NAME OF PROJECT (including the name of the project location) Ege Bay Exploration Program (Ege Bay, Nunavut)													
4. LOCATION OF UNDERTAKING Project Extents <table><tr><td>NW</td><td>Lat: 69°38'32.31"N</td><td>Long: 77°13'45.39"W</td></tr><tr><td>NE</td><td>Lat: 70°08'43.27"N</td><td>Long: 75°42'15.92"W</td></tr><tr><td>SE</td><td>Lat: 69°58'14.53"N</td><td>Long: 75°13'47.09"W</td></tr><tr><td>SW</td><td>Lat: 69°28'18.31"N</td><td>Long: 76°45'11.40"W</td></tr></table> Camp Location(s) Latitude: (Lat: 69°37'48.95"N) Longitude: (76°39'47.38"W)		NW	Lat: 69°38'32.31"N	Long: 77°13'45.39"W	NE	Lat: 70°08'43.27"N	Long: 75°42'15.92"W	SE	Lat: 69°58'14.53"N	Long: 75°13'47.09"W	SW	Lat: 69°28'18.31"N	Long: 76°45'11.40"W
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5. MAP - Attach a topographical map, indicating the main components of the undertaking.

See Figures 1, 2 and 3 (attached). Figure 3 is at a scale of 1:50,000.

NTS Map Sheet No.: 37C/9 Map Name: Ege Bay Map Scale: 1:50,000

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: May 1, 2008 Date of expiry: May 1, 2028

☐ 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: March 31, 2019 Date of expiry: TBD

☐ Commissioner's Land Use Authorization

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

☐ Other: _____

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.

☐ North Baffin

☐ Keewatin

☐ South Baffin

☐ Sanikiluaq

☒ Akunnig

☐ West Kitikmeot

Is a land use plan conformity determination required?

☐ Yes

☒ No

If Yes, indicate date issued and attach copy _____

	<p>If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.</p> <p>NPC letter dated April 17, 2018 (NPC File No. 148801); Refer to Attachment 3.</p>																		
8.	<p>NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION</p> <p>Is an Article 12 Part 4 screening determination required?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, indicate date issued and attach copy:</p> <p>NIRB Letter dated August 17, 2018 (File No. 18EN026); Refer to Attachment 3.</p>																		
9.	<p>DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.</p> <p>See Project Proposal provided in Attachment 7.</p> <p><u>Note:</u> The Project Proposal was developed in April 2018 for the NPC and NIRB review. As the Ege Bay Exploration Program has progressed through the permitting and approvals process, Baffinland has had to adjust the schedule for establishing the exploration camp and initiating the drilling program. Where the Project Proposal and this application differ on schedule, this application should be used.</p>																		
10.	<p>OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.</p> <p>Baffinland started surface mineral exploration at Ege Bay in 2013, operating from the Mary River Project and/or a small camp at Steensby Port. Further exploration cannot advance logistically or cost-effectively without establishing an exploration camp at the Ege Bay location.</p>																		
11.	<p>CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.</p> <table border="0"><tr><td><input type="checkbox"/> Industrial</td><td><input type="checkbox"/> Agricultural</td></tr><tr><td><input checked="" type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps)</td><td></td></tr><tr><td><input type="checkbox"/> Conservation</td><td></td></tr><tr><td><input type="checkbox"/> Municipal (includes camps/lodges)</td><td><input type="checkbox"/> Recreational</td></tr><tr><td><input type="checkbox"/> Power</td><td><input type="checkbox"/> Miscellaneous (describe below):</td></tr></table> <hr/> <p>See Schedule II of <i>Northwest Territories Waters Regulations</i> for Description of Undertakings.</p> <p>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.</p> <table border="0"><tr><td><input type="checkbox"/> Hydrostatic Testing</td></tr><tr><td><input type="checkbox"/> Tannery</td></tr><tr><td><input type="checkbox"/> Tourist / Remote Camp</td></tr><tr><td><input type="checkbox"/> Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil</td></tr><tr><td><input type="checkbox"/> Onshore Oil and Gas Exploration Drilling</td></tr><tr><td><input checked="" type="checkbox"/> Mineral Exploration / Remote Camp</td></tr><tr><td><input type="checkbox"/> Advanced Exploration</td></tr><tr><td><input type="checkbox"/> Mine Development</td></tr></table>	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps)		<input type="checkbox"/> Conservation		<input type="checkbox"/> Municipal (includes camps/lodges)	<input type="checkbox"/> Recreational	<input type="checkbox"/> Power	<input type="checkbox"/> Miscellaneous (describe below):	<input type="checkbox"/> Hydrostatic Testing	<input type="checkbox"/> Tannery	<input type="checkbox"/> Tourist / Remote Camp	<input type="checkbox"/> Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil	<input type="checkbox"/> Onshore Oil and Gas Exploration Drilling	<input checked="" type="checkbox"/> Mineral Exploration / Remote Camp	<input type="checkbox"/> Advanced Exploration	<input type="checkbox"/> Mine Development
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<input type="checkbox"/> Advanced Exploration																			
<input type="checkbox"/> 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.

- ☒ To obtain water for camp/ municipal purposes
☒ To obtain water for industrial purposes
☒ To cross a watercourse
☐ To alter the flow of, or store water
☐ Other: _____
- ☐ To divert a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control

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):

An unnamed lake referred to as Lake EB-1 will provide water to the camp, and an unnamed lake referred to as Lake EB-2 will provide water for drilling. Other miscellaneous ponds will be used for drilling water. Locations are shown on Figure 3.

Describe the quality of the water source(s) and the available capacity:

Water quality of the water sources are unknown, but they are expected to be potable and suitable for drilling. The winter water withdrawal from Lake EB-1 will result in a drawdown of approximately 1 mm over an 8-month period of ice cover. The winter water withdrawal from Lake EB-2 will result in a drawdown of approximately 2.5 mm over an 8-month period of ice cover. The winter water withdrawals represent 0.1% and 2.1% of the annual recharge in Lakes EB-1 and EB-2, respectively, based upon lake catchment sizes and mean annual unit runoffs from 7 hydrometric stations associated with the Mary River Project.

Provide the overall estimated quantity of water to be used: 299 m³/day

Provide the estimated quantity(s) of water to be used from each source:

Lake EB-1 (Camp Water Supply) = 29 m³/day or 10,585 m³/year

Lake EB-2 (Drilling Water Supply) = 270 m³/day, or 98,550 m³/year

Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)

Camp Water Supply = 29 m³/day or 10,585 m³/year

Drilling Water Supply = 270 m³/day, or 98,550 m³/year

Describe the method of extraction(s): Temporary intakes equipped with fish screens.

Estimated quantity(s) of water returned to source(s) 0 m³/day.

Describe the quality of water(s) returned to source(s): Not applicable.

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

- ☒ Sewage
☒ Solid Waste
☒ Hazardous
- ☒ Waste oil
☒ Greywater
☒ Sludges

<input checked="" type="checkbox"/> Bulky Items/Scrap Metal <input type="checkbox"/> Animal Waste <input type="checkbox"/> Other (describe): _____	<input checked="" type="checkbox"/> Contaminated soil and/or water
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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
Sewage	Camp sewage including greywater	20 to 30 m ³ /day	Sewage Treatment Facility	Treated Effluent Discharge
Solid Waste	Food waste, packaging	2 kg / person / day (200 kg / day)	Incineration of combustible non-hazardous waste; storage and backhaul of non-combustible waste to southern disposal or recycling facility.	
Hazardous	Waste oil, waste antifreeze, oily rags	2,000 L / year	Backhaul to southern disposal or recycling facility	
Bulky Items/ Scrap Metal	Scrap metal (old drill rods, etc.)	Included in solid waste quantity estimate.	Backhaul to southern disposal or recycling facility	
Waste Oil	-	2,000 L / year	Storage in lined facility; backhaul to southern disposal facility	
Greywater	-	Included in sewage quantity estimate.	Sewage treatment facility or excavated sump.	

16. 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:

Authorization: Letter of Advice for Culvert Installations and Barge Ramp

Administering Agency: Fisheries and Oceans Canada

Project Activity: Culvert installations along proposed access road/trail between camp and exploration area; barge ramp in Ege Bay.

Date (expected date) of issuance: March 31, 2019 Date of expiry: TBD

17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES - Describe direct, indirect, and cumulative impacts related to water and waste.

- J Air quality - the exploration activities will generate emissions locally that will have limited environmental impact.
- J Noise - drilling, helicopters and airplanes will generate noise that has the potential to impact wildlife. There is a walrus haul-out on an Imiliq Island, approximately 15 km from the exploration area. Air traffic will avoid this area and will be mindful of the possible presence of other walrus haul-outs as well as caribou in the area. Minimum flight altitudes specified in land use leases/permits will be adhered to. An access trail will eventually be constructed between the camp and exploration area to minimize helicopter use.
- J Surface water - Water will be withdrawn from two lakes in the area. Winter withdrawals will comply

	<p>with DFO's 2010 Winter Water Withdrawal Guidelines. Intakes will be equipped with fish screens.</p> <p>J Fisheries - Culverts will be installed in two small streams. Baffinland will seek direction from DFO including complying with the best practices outlined in a Letter of Advice (LOA).</p> <p>J Soils, Permafrost and Landforms - Ground disturbances will be minimized. Quarries may be exploited to construct an access trail and an airstrip.</p> <p>J Vegetation and wildlife - Baffinland will follow the wildlife and caribou protection measures outlined in exploration program's Environmental Protection Plan. This includes reducing activity of caribou move into the area.</p> <p>J Cultural Heritage - A qualified archaeologist conducted archaeological surveys in the summer of 2018. Archaeological sites identified will be avoided, protected or mitigated, using a methodology consistent with the Mary River Project's Cultural Heritage Protection Plan.</p> <p>J Land Use - The exploration program area is not currently a high use area, based on the Mary River Inuit Knowledge Study and discussions with the Hamlet Councils and Hunter and Trapper Organizations in Igloolik and Hall Beach. The area was historically used by Inuit.</p>
<p>18.</p>	<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>Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.</p> <p>No persons or properties are expected to be adversely affected by the proposed undertaking. To Baffinland's knowledge, there are no other water licence or land use holders active in the area.</p>
<p>19.</p>	<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>The Ege Bay Exploration Program is not expected to substantially affect the quality, quantity or flow of waters through IOL. This aspect will be discussed and agreed upon with the Qikiqtani Inuit Association during the Land Use Lease III application process.</p>
<p>20.</p>	<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> <p>Consultation meetings on the Ege Bay Exploration Program included:</p> <ul style="list-style-type: none"> - April 5, 2018 – meeting with the Hamlet of Hall Beach Mayor and Council, along with representatives from the Hall Beach Hunters and Trappers Organization (HTO) - April 6, 2018 - meeting with the Municipality of Igloolik Mayor and Council, along with representatives from the Igloolik HTO - April 12, 2018 – meeting with the Qikiqtani Inuit Association - November 27, 2018 – meeting with Hamlet of Igloolik Mayor and Council, along with representatives from the Igloolik HTO. <p>Community representatives did not express any significant concerns but did indicate that this is a</p>

21. SECURITY INFORMATION

A reclamation cost estimate is presented in the Closure and Reclamation Plan, presented in Attachment 11.

Provided in Attachment 5.

The Ege Bay Exploration Program Project Proposal (Attachment 7) describes site conditions including catchment areas feeding the water source lakes.

Post-Closure

8

☒ 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 Dec. 14, 2018

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 Dec. 14, 2018

28. SIGNATURE

Thomas Iannelli
Name (Print)

Head of Exploration
Title (Print)

Thomas Iannelli
Signature

Dec. 7, 2018
Date