

WATER LICENCE INSPECTION FORM

Original
 Follow-Up Report

Licensee Department of National Defence	Licensee Representative Don Beattie
Licence No. / Expiry 3BC-BAFA0919	Representative's Title Environmental Officer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection September 3, 2018	Inspector Joseph Monteith
Activities Inspected	
<input type="checkbox"/> Camp <input type="checkbox"/> Drilling <input type="checkbox"/> Mining <input type="checkbox"/> Construction <input type="checkbox"/> Reclamation <input type="checkbox"/> Fuel Storage <input type="checkbox"/> Roads/Hauling <input checked="" type="checkbox"/> Other: Potable Water Source, Solid Waste Facility, Sewage Disposal Facility <input type="checkbox"/> Other:	

	Conditions:	A- Acceptable	U-Unacceptable	C-Concern	NI-Not Inspected	NA- Not applicable
PART:					Item No.*	Condition
A: SCOPE, DEFINITIONS AND ENFORCEMENT						A
B: GENERAL CONDITIONS						A
C: CONDITIONS APPLYING TO SECURITY						NI
D: CONDITIONS APPLYING TO WATER USE						A
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT						1-8
F: CONDITIONS APPLYING TO MODIFICATIONS						9-13
G: CONDITIONS APPLYING TO CONSTRUCTION						NA
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING						NA
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING						A
J: CONDITIONS APPLYING TO MONITORING						A
SCHEDULES						A
<i>*The item number corresponds with specific conditions within the licence and the observation number corresponds with specific comments provided below.</i>						
Samples taken by Inspector:		Location(s): Latitude: 63° 20' 23"N Longitude: 64° 08' 45"W				
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						

SECTION 1	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
BACKGROUND			
<p>The BAF-3 Long Range Radar Station (BAF-3) is located at an elevation of 366 m above sea level on the southern end of Brevoort Island. (See photo 1). Brevoort Island is 40-km long and 10-km wide. It is found off the east coast of Baffin Island, approximately 250 km Northeast of Iqaluit.</p> <p>Relevant on-site facilities include a land farm for the remediation of a fuel spill that occurred in 2007, site buildings, a freshwater intake, two (2) 854,000 litre water tanks, fuel storage area, and one incinerating toilet. The site also has a sewage disposal facility consisting of a septic tank and outfall pipe, which discharges to the land.</p>			
Inspector Statement			
<p>On September 3, 2018, a Water Licence was conducted at the North Warning Sites' BAF-3 Long Range Station on Brevoort Island, Qikiqtani Region, Nunavut to verify compliance with Water Licence 3BC-BAF0919.</p>			
Compliance with General Conditions of the Licence			
<p>On March 28, 2018 a submission of an annual report was uploaded to the Nunavut Water Board ftp website, satisfying the General Requirement.</p>			
Water Use and Related Structures			
<i>Fresh Water Lake</i>			
<ol style="list-style-type: none"> 1. The licensee is authorized to withdrawal 1750 m³ per year 2. All water is withdrawn from Fresh Water Lake (see photo 2). 3. Floating dock with milk crate for fish mesh screen (see photo 3). 4. Intake pipe has a milk crate for a fish mesh screen (see photo 4). 5. Intake pipe to Pump house (see photo 5). 6. Pump house with two water pumps and internal piping (see photo 6). 			

Water Storage Building

- 7. The Water Storage Building has two 984 m³ Water Storage Tanks (see photo 7 and 8).
- 8. A Water Meter was observed on site, and read 91271.2 Gallons (see photo 9).

Sewage Disposal Facility

- 9. The Sewage system consists of a septic tank, and an outfall pipe that drops its waste into a sump.
- 10. No observations were made of the septic tank during the inspection.
- 11. The outfall pipe end was below the sewage waste water table in the sump. (See photo 10).
- 12. The Sump pit appeared to be full, and was built up on one side of the wall with rocks. Seepage appears to have leaked through the rocks (See photo 11).

Hazardous Waste

- 13. Hazardous Waste was observed on site. BAF-3 stores hazardous waste from surrounding sites at BAF-3 before shipping it to a proper hazardous waste disposal facility in Quebec (See photo 12).

Spill Reports

The BAF-3 site has a total of 15 spills reported since 2015. Of the 15 spill reports, 3 are being brought up as they contained the largest spills between 2015 and today.

- 14. On December 5, 2017, a Spill Report 2017-438 was issued to BAF-3 for a release of 1600 Litres of waste water from a fitting leak.
- 15. On July 30, 2015, A Spill Report 2015-321 was issued to BAF-3 for a release of 856 Litres of Petroleum from a truck.
- 16. ON March 19, 2015, a Spill Report 2015-104 was issued to BAF-3 for a release of 50,000 Litres of Petroleum from a storage tank. This spill has a remediation activity that was observable at the time of the inspection. A summary report was submitted to WRO Monteith on July 13, 2018.
- 17. At the time of the inspection signs of remediation were present (See photo 13, 14, and 15). No sampling was conducted during the inspection. A review of the Summary Analysis results shows that not all criteria were met in the Nunavut Water Board Licence to properly close the file.

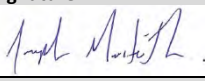
SECTION 2 Comments Non-Compliance with Act or Licence Action Required

The following information is a summary of the Actions required by the licensee to promote and ensure compliance:

- The Licensee is reminded to remain diligent to prevent wastes from entering water, the environment, and to adhere to the discharge requirements listed in this licence.

SECTION 3 Comments Non-Compliance with Act or Licence Action Required

[Click here to enter text.](#)


Licensee or Representative	Inspector's Name
Don Beattie	Joseph Monteith
Signature	Signature
	
Date	Date
	November 29, 2018

CC: Licensing Department, NWB
Justin Hack, Manager of Field Operations, INAC




PHOTO LOG

Date	Camera	Inspector
September 3, 2018	Nikon Coolpix	Joseph Monteith
Photo Log #1	Location	
Photo 1	Breevort Island, NU	



Description: BAF-3, Breevort Island

Photo Log	Location
Photo 2	Breevort Island



Description: Pump house recharges pipes which transfers water to the BAF-3 facility.



Photo Log

Location

Photo 3

Igloolik



Description: Floating dock with milk carton installed to act as a fish mesh screen when withdrawing from the freshwater source.

Photo Log

Location

Photo 4

N69° 21.248' W81° 50.439'



Description: Inside milk crate on floating dock.



Photo Log

Location

Photo 5

N69° 21.248',

W81° 50.439'



Description: intake pipe to pump house.

Photo Log

Location

Photo 6

N69° 21.248'

W81° 50.439'



Description: Two water pumps in pump house at potable Fresh Water Lake



Photo Log	Location
Photo 7	Igloolik
	
Description: Water Storage Tank South. Capacity 984,000	

Photo Log	Location
Photo 8	Igloolik
	
Description: Water Storage Tank South. Capacity 984,000	



Photo Log

Location

Photo 9

Igloolik



Description: Water Storage Tank South. Capacity 984,000

Photo Log

Location

Photo 10

Igloolik



Description: Outtake pipe for sewage



Photo Log

Location

Photo 11



Description: Old Water Treatment Facility

Photo Log

Location

Photo 12

Breevort Island



Description: A hydro carbon puffer, creates a negative pressure room, and sucks the hydro carbons out of the soil.



Photo Log

Location

Photo 13

Breevort Island



Description: Site of remediation from on top of the storage tank responsible for the spill source.

Photo Log #

Location

Photo 14

Breevort Island



Description: A hydro carbon puffer, creates a negative pressure room, and sucks the hydro carbons out of the soil.



Photo Log #

Location

Photo 15

Brevort Island



Description: Migration of spill also went north east of the storage tank. The water in the photo is a result of the creation of a trench to capture fuel spill and stop the migration.