

WATER LICENCE INSPECTION FORM

☒ Original

☐ Follow-Up Report

Licensee	Licensee Representative
Department of National Defence	Don Beattie
Licence No. / Expiry	Representative's Title
8BC-FOD0919	Environmental Officer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection	Inspector
September 4, 2018	Joseph Monteith
Activities Inspected	
<input type="checkbox"/> Camp	<input type="checkbox"/> Drilling
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Mining
	<input type="checkbox"/> Construction
	<input checked="" type="checkbox"/> Other: Potable Water Source, Solid Waste Facility, Sewage Disposal Facility
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Fuel Storage
	<input type="checkbox"/> Other:

Conditions:	A- Acceptable	U-Unacceptable	C-Concern	NI-Not Inspected	NA- Not applicable
PART:				Condition	Observation No.*
A: SCOPE, DEFINITIONS AND ENFORCEMENT				A	
B: GENERAL CONDITIONS				A	
C: CONDITIONS APPLYING TO SECURITY				NI	
D: CONDITIONS APPLYING TO WATER USE				A	1-8
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT				A	9-14
F: CONDITIONS APPLYING TO MODIFICATIONS				NA	
G: CONDITIONS APPLYING TO CONSTRUCTION				NA	
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING				A	15-18
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING				NI	
J: CONDITIONS APPLYING TO MONITORING				A	
SCHEDULES				A	
*The observation number corresponds with specific comments provided below.					
Samples taken by Inspector:		Location(s): Latitude:N68° 40' 48" Longitude: W71° 14' 48"			
<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>Water Licence 3BC-FOD0919 issued to the Government of Canada Department of National Defence for the use of water not exceeding 1440m³ annually and the deposit of waste during the operation and maintenance of the FOX-3 Long Range Radar Station located north of Dewar Lakes on Baffin Island within the Qikiqtani Region, Nunavut.</p> <p>Relevant on-site facilities include site buildings, a freshwater intake, four (4) 10 m³ 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 4, 2018, Water Resource Officer (WRO) Joseph Monteith conducted a Water Licence Inspection was conducted at Dewar Lake, NU. The purpose was to verify compliance with the terms and conditions of Water Licence 3BC-FOD0919.</p>			
Compliance with General Conditions of the Licence <p>On February 6, 2019 WRO Monteith received an email from Richard Dwyer, Manager of Licencing, Nunavut Water Board with a link to the submission of the 2018 Annual Report.</p>			
Water Use and Related Structures <p>Water Lake</p> <ol style="list-style-type: none">The licensee is permitted to withdrawal 1440 cubic metres from Water Lake.The licensee withdraws water from the Water Lake and trucks the water to six raw water tanks within the main facility. (see photo 2)Fish Mesh Screen visible from surface (see photo 3).			



4. No signs of drawdown or erosion were noted during the inspection.
5. This facility appears to be working as intended.
6. Water Flow Meter Records were observed on site (see photo 11).

Fox-3 North Warning Site(see photo 1)

7. Four 10,000 Litre Water Storage Tanks (see photo 4 and 5).
8. Water Meter reads 10794 Litres (see photo 6).

Sewage Disposal

9. The Licensee treats the sewage inside the main facility using incinerator toilets and septic tanks and disposes it in a sump.
10. The Licensee treats the sewage inside the main facility using incinerator toilets and a septic tank system.
11. It is discharged through an outfall pipe that leads to a sump (see photos 7 and 8).

Historical Spill

12. Past inspection reports document two spills.
13. Fuel pipe line failure reported on July 9, 2009 which released an unknown quantity from a 3 mm crack in the apron-to-summit pipeline. No samples were taken.
14. An amendment was requested of the licensee in order to construct an engineered land farm in 2017.
15. A helicopter crash on May 13, 2013 Spill Report 2013-145 that released 917 litres of Jet-A1. The Helicopter site appears to be remediated after capturing contaminated soil, and capping the area with gravel (see photo 9).
16. The fuel pipeline also appears to be remediated having removed contaminated soil, and capped the surrounding area with gravel. The pipe was repaired and operating at the time of the inspection (see photo10).

Records and Plans

17. On site request for documentation produced Water Flow Meter Records, Emergency Plans, and a Spill Contingency Plan.
18. Water Flow Meter Records (see photo 11).
19. Emergency Plan (See photo 12).
20. Spill Contingency Plan (see photo 13).

SECTION 2	<input type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input checked="" type="checkbox"/> Action Required
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The following information is a summary of the Actions required by the licensee to promote and ensure compliance.

- Email WRO Monteith a copy of the sample analysis for the two spills prior to capping to verify if the spills were compliant.

SECTION 3	<input type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
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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 4, 2018	Nikon Coolpix	Joseph Monteith
Photo Log	Location	
Photo 1	Dewar Lake	
		
Description: Fox-3 Dewar Lake, Qikiqtani Region, Nunavut		


Photo Log	Location
Photo 2	Dewar Lake
	
Description: Water Lake and Withdrawal hose.	



Photo Log

Location

Photo 3

Dewar Lake



Description: Fish Mesh Screen

Photo Log

Location

Photo 4

Dewar Lake



Description: Water Storage Tank T-1, and T-2



Photo Log	Location
Photo 5	Dewar Lake
Description: Trucks recharge Water Storage Reservoir	

Photo Log	Location
Photo 6	Dewar Lake
Description: Trucks recharge Water Storage Reservoir	



Photo Log	Location
Photo 7	Dewar Lake
	
Description: Outtake Pipe leading to a sump pit. A couple of spill kits	

Photo Log #	Location
Photo 8	Dewar Lake
	
Description: discharge point for sewage. Sump pit walls appear to be operating as intended	



Photo Log	Location
Photo 9	Dewar Lak e
	
Description: Location of crash site is capped with gravel.	

Photo Log	Location
Photo 10	Dewar Lake
	
Description: Site of pipe line spill is capped.	

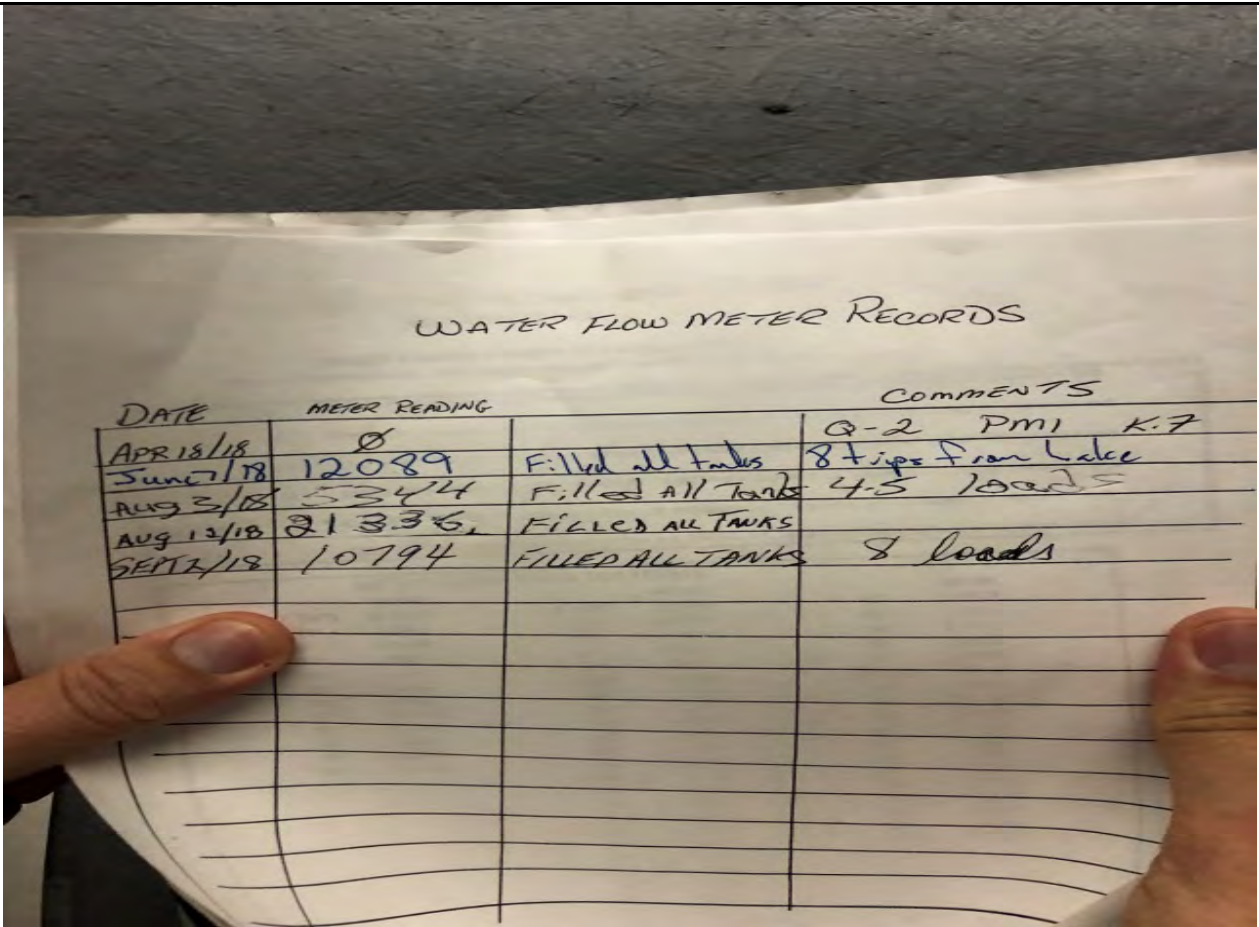


Photo Log

Location

Photo 11

Dewar Lake



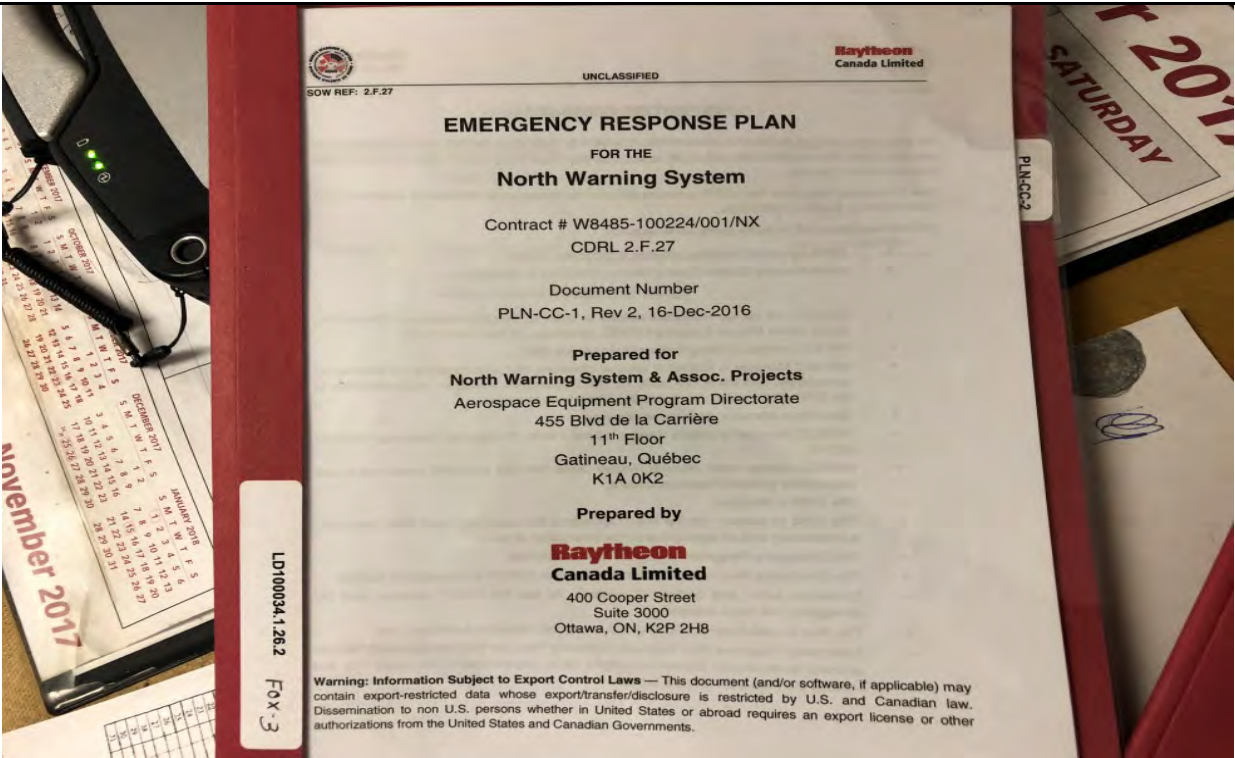
Description: Water Flow Meter Record dated April 18, 2018 to September 12, 2018

Photo Log

Location

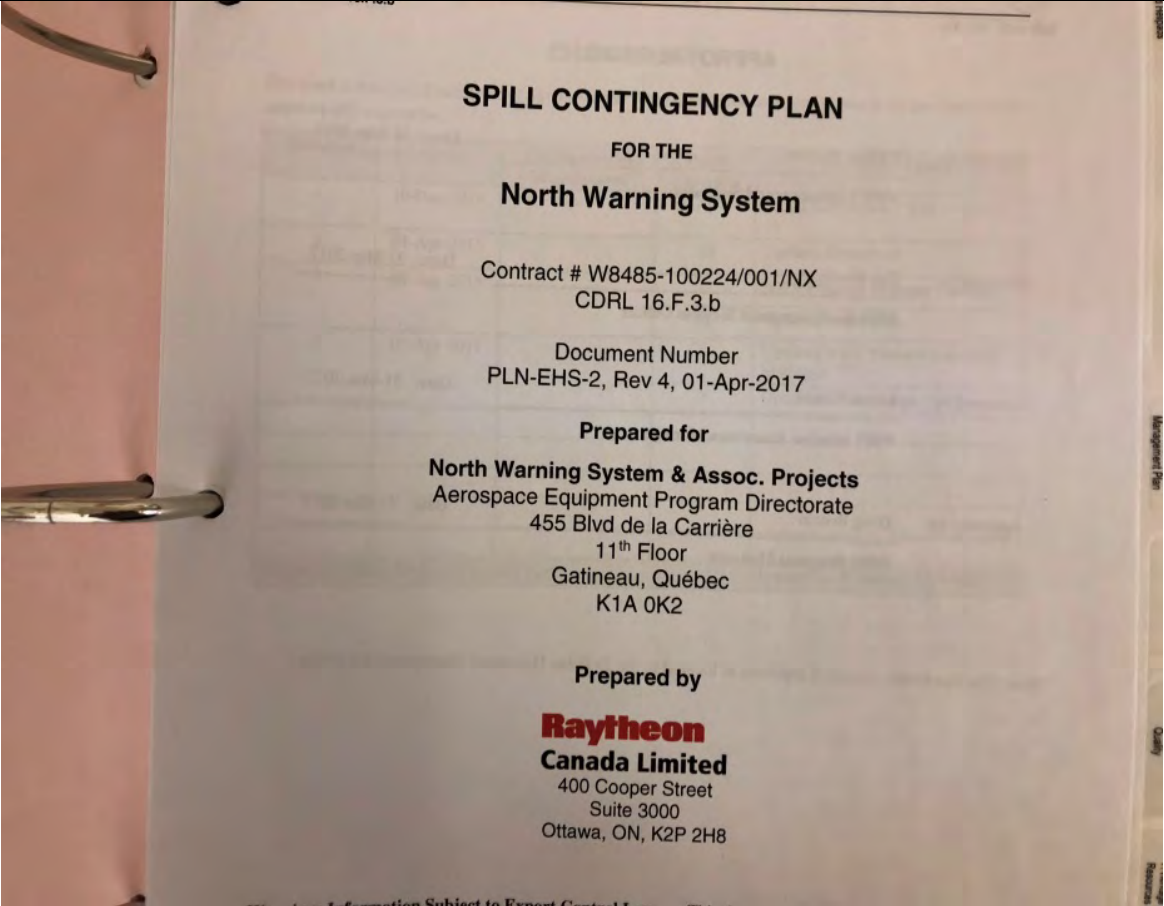
Photo 12

Dewar Lake



Description: Emergency Response Plan



Photo Log	Location
Photo 13	Dewar Lake
	
Description: Spill Contingency Plan	