



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Hamlet of Pangnirtung		John Hussy	
Licence No. / Expiry		Representative's Title	
3BM-PAN1417		Senior Administrative Officer	
Land / Other Authorizations		Land / Other Authorizations	
Date of Inspection		Inspector	
July 27, 2016		Justin Hack	
Activities Inspected			
<input type="checkbox"/> Camp	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other: Water Discharge	<input type="checkbox"/> Reclamation	<input checked="" type="checkbox"/> Fuel Storage
<input checked="" type="checkbox"/> Other: Municipal			

Conditions:		A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected					
Water Use		Condition	Comment	Site Conditions		Condition	Comment	Haz/Mat Management		Condition	Comment
Intake/Screen	NA			Water Management Structures	C	3, 8-11		Storage	A		
Flow Measure. Device	A			Culverts / Bridges	A			Spills	A		
Source:	A			Drainage	NA			Spill Plan	A		
Water Use:	A			Erosion / Sediment	A						
Recirculation (y /n)	NA			Mitigation Measures	A			Administrative			
				Reclamation Activities	NA			Records			
				Materials Storage	NA			Reports	NI		
Waste Disposal				Signage	A			Plans	NI		
Waste Water	A							Notifications	NI		
Solid Waste	A			Monitoring		Other					
Hazardous Waste	A			Sample Collection / Analysis	NI			Inspection report compliance	A		
								Compliance with issued Direction	A		
*The number in the comments field will correspond with specific comments provided below.											
Samples taken by Inspector:			Location(s):								
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No											

SECTION 1	<input checked="" type="checkbox"/> Comments (s.1-2)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.3)	<input type="checkbox"/> Action Required (s.4)
Inspectors Statement			
<p>On July 27 2016, a water licence inspection was conducted at the Hamlet of Pangnirtung, Qikiqtani Region, Nunavut. Sites inspected included the Waste Water Treatment Plant, the Solid Waste Disposal Facility, the Metal Storage Facility Berms, and the Water Distribution Facility.</p> <p>Background</p> <p>The Hamlet of Pangnirtung has an active licence for the use of 299 cubic meters of water per day and is permitted to dispose of waste under conditions in which the waste may enter water at the Waste Water Treatment Plant, Solid Waste Disposal Facilities and Metal Disposal Facility.</p> <p>Inspection</p> <p>Water Use and related structures:</p> <ol style="list-style-type: none">Water is being withdrawn from the Duval River as approved in the Water License by a diesel pump located near the riverbed.In 2015, the Hamlet of Pangnirtung withdrew approximately a total of 51,217m³ of water and is withdrawing water at approximately the same rate in 2016.The berm wall around the reservoir has a depression near the northeast corner. This was likely caused from upstream surface water run-off. The depression is likely allowing surface water from the surrounding environment to flow into the reservoir during heavy rainfall events only. This should be addressed to maintain the designed integrity of the structure. See <i>Figure A</i>. <p>Waste Water Treatment Plant</p> <ol style="list-style-type: none">No concerns with the operation of this facility related to the discharge of waste to freshwater.Records were kept up to date.			

6. Treated Effluent is discharged approximately 30 feet from the shoreline and the main receiving environment is the ocean. The effluent does not enter any water on its path to the ocean.

Solid Waste Facility:

7. As outlined on Page ix of the Licence, the Nunavut Water Board understands that a small amount of leachate can leave the site and enter the surrounding environment. The receiving environment of the landfill is the ocean. Under INAC, discharges of wastes to the ocean are regulated by the Arctic Waters Pollution Prevention Act. If this leachate is considered a waste entering Arctic Waters, the proponent must be aware that this is to be authorized by INAC. Ditches around the domestic landfill remain in good order and are sufficiently channeling water around this facility at the time of inspection.

Metal Storage Area:

8. The community is segregating and storing metals, vehicles, batteries, and electronic waste within the Metal Storage Area. Small amounts of leachate appear to be entering a small amount of surface water at this facility before it drains into the ocean.
9. Due to changing drainage patterns coming off of the mountains behind the metal disposal area, the berm walls surrounding this facility has been breached in previous years which led to water flowing through the facility in three separate locations.
10. The Hamlet has since addressed this issue by filling the breached sections of the berm with hardened cement and soil to divert the surface water around the metal storage area. However, water is accumulating behind these sections and the water is slowing exfiltrating into the Metal Storage Area. See *Figure B*.
11. INAC has concern related to this structure because of its inability to properly divert water around the metal storage area causing small amounts of leachate to enter the surface water.
12. The space required for the metal storage remains an issue for Pangnirtung. Practical short-term solutions do not appear feasible and the community is trying to determine a plan to deal with this issue.

PHOTO LOG

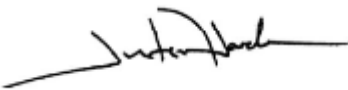
Date	Camera	Inspector	Authorization
27/07/2016	SONY DSC-HX50V	Justin Hack	3BM-PAN1417



Figure A: Photo of the erosion caused by surface water near the northeast corner of the water reservoir.



Figure B: One of three locations where water has built up behind the berms surrounding the metal storage area.

Licensee or Representative	Inspector's Name
	Justin Hack
Signature	Signature
	
Date	Date
	September 8, 2016

Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes <input type="checkbox"/> No
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