



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Hamlet of Sanikiluaq		Bhabesh Roy	
Licence No. / Expiry		Representative's Title	
3BM-SAN1520		Regional Planning Engineer	
Land / Other Authorizations		Land / Other Authorizations	
None			
Date of Inspection		Inspector	
13/06/2017		Jonathan MESHER	
Activities Inspected			
<input checked="" type="checkbox"/> Camp/municipality	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Reclamation
			<input type="checkbox"/> Fuel Storage

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		A		Water Management Structures		A		Storage		A	
Flow Measure. Device		U		Culverts / Bridges		A		Spills		A	
Source:		A		Drainage		A		Spill Plan		A	
Water Use:		A		Erosion / Sediment		A					
Recirculation (y /n)		NA		Mitigation Measures		NA		Administrative			
				Reclamation Activities		NA		Records		A	
				Materials Storage		NA		Reports		NI	
Waste Disposal				Signage		A		Plans		NI	
Waste Water		A						Notifications		A	
Solid Waste		C		Monitoring				Other			
Hazardous Waste		A		Sample Collection / Analysis		NI		Follow-up from previous inspection		NI	
*The number in the comments field will correspond with specific comments provided below.											
Samples taken by Inspector:				Location(s): SAN-2, SAN-4 and Windy Lake							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

SECTION 1	<input checked="" type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
Inspectors Statement			
<p>On June 13, 2017, a water licence inspection was conducted at the Hamlet of Sanikiluaq, Qikiqtani Region, Nunavut.</p> <p>The Hamlet has a current type "B" water licence that allows the use of 40,000 cubic metres per annum or 229 cubic metres per day from the Hudson Bay Island watershed. Sites inspected include the single cell non-engineered lagoon, the non-engineered wetland, the solid waste storage facility, Windy Lake and the Sanikiluaq Lake Truck-Fill Station.</p> <p>Weather Conditions on Site</p> <p>Mainly cloudy with temperatures between -1 and 5 degrees Celsius. The Hamlet of Sanikiluaq was free of snow at the time of the inspection.</p> <p>Inspection</p> <p>1. Sanikiluaq Lake</p> <p>a) Water is being withdrawn from Sanikiluaq Lake as approved by the water licence.</p> <p>b) The withdrawal of water from Sanikiluaq Lake is being measured using meters installed on the water trucks.</p> <p>i. This method of measurement does not capture all water used from Sanikiluaq Lake by the Hamlet.</p> <p>ii. Activities such as dust suppression, truck cleaning, and any discharges from the truck not used for portable water deliveries are not reported or recorded.</p> <p>iii. It is recommended that a flow meter be installed at the water intake to ensure compliance with Part B Item 1(b) of the Water License, which states that water from all sources be recorded and reported.</p> <p>c) The Licensee has identified Windy Lake as a potential secondary raw water source; samples were taken for background data.</p> <p>2. Non-Engineered Lagoon</p> <p>a) The lagoon operates by passive exfiltration and overflow of the berm wall, in figure 1 you can see the exfiltration and flow path to the ocean. The effluent then travels approximately 1km before entering the ocean.</p> <p>b) The Licensee is under conditions from the water licence to allow at least 1.0 metre of freeboard, though due to the intended design of the facility maintaining the 1.0 metre of freeboard does not appear to be feasible.</p>			



- c) Samples were taken at SAN-4 to ensure compliance with the Water Licence criteria.
- d) The Location at SAN-4 has not been moved as recommended in the last Inspection, The licensee has agreed to move it before the 2018 inspection.

3. Domestic Waste Facility(unlined)

- a) The licensee disposes domestic waste through a burn and cover procedure.
- b) The unlined facility has a ditch on the NE side as you can see in figure 2 below, this ditch gathers surface water from in and around the facility.

i. It was recommended in the last inspection report that the sampling location for SAN-2 be moved to where the water leaves the facility.

ii. This work has not been complete, the previous inspector and I agree that this will give a more representative samples of the leachate leaving the facility.

iii. If the water leaving the facility is proven to be detrimental to the environment, the licensee will need to amend the current water licence to allow for this deposit of a waste or properly divert water away from this facility.

SECTION 2

☐ Comments

☐ Non-Compliance with Act or Licence

☒ Action Required

Sanikiluaq Lake Pump Station

- The Licensee is asked to install device to accurately record the water usage.

Non-Engineered Lagoon

- The Licensee is asked to relocate the sampling point SAN-4, in order to accurately record the Effluent quality as it leaves the lagoon.

Domestic Waste Facility.

- The licensee is asked to relocate the sampling point SAN-2, in order to determine if this facility will require leachate criteria.



Figure 1: flow path of effluent from non-engineered lagoon.



Figure 2: Leachate leaving the solid waste disposal facility.

Inspector's Name	
Jonathan Mesher	
Signature	
Date	
June 16, 2017	

Jonathan Mesher
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