

WATER LICENCE INSPECTION FORM

☒ Original

☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Hall Beach	Bhabesh Roy
Licence No. / Expiry	Representative's Title
3BM-HAL2025	Municipal Engineer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection	Inspector
August 12, 2019	Joseph Monteith
Activities Inspected	
<div><div><input type="checkbox"/> Camp</div><div><input type="checkbox"/> Drilling</div><div><input type="checkbox"/> Mining</div><div><input type="checkbox"/> Construction</div><div><input type="checkbox"/> Reclamation</div><div><input type="checkbox"/> Fuel Storage</div></div> <div><div><input type="checkbox"/> Roads/Hauling</div><div><input checked="" type="checkbox"/> Other: Potable Water Source, Waste Water Treatment Facility, and Solid Waste Facility</div><div><input type="checkbox"/> Other:</div></div>	

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	1-5
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT				C	6-14
F: CONDITIONS APPLYING TO MODIFICATIONS				NI	
G: CONDITIONS APPLYING TO CONSTRUCTION				NI	
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING				A	
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING				NA	
J: CONDITIONS APPLYING TO MONITORING				A	
SCHEDULES				A	
*The licence and the observation number corresponds with specific comments provided below.					
Samples taken by Inspector:		Location(s): Latitude: 69°23’N and Longitude: 81°46’W Coordinates takes you into the ocean around Fury and Hecla Strait.			
<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.__)
<b>BACKGROUND</b> <p>The Hamlet of Hall Beach (Hamlet), with an estimated population of 829 (2010), is located on the western shore of Foxe Basin within the Qikiqtani Region of Nunavut.</p> <p>The Hamlet owns and operates several municipal facilities aimed at providing relevant services to the residents of the community including a potable Water Supply Facility (WSF), Solid Waste Disposal Facility (SWDF), and a Sewage Disposal Facility (SDF). The Hamlet is authorized for 70,000m³ of water for community use and up to a maximum of 35,000m³ annually.</p> <p>The Hamlet shares the same Potable Water Source with the Department of National Defence – North Warning Sites.</p> <b>Inspector Statement</b> <p>On August 12, 2020, a water licence was conducted by Water Resource Officer Joseph Monteith at the Hamlet of Hall Beach, Qikiqtani Region, Nunavut.</p> <b>Water Use Related Structures</b> <ol style="list-style-type: none"><li>Water withdrawal is conducted from South Lake to the Water Storage Reservoir. The Water from South Lake is recharged by opening up a gate on a dyke which is also a man-made reservoir. The Storage Reservoir has a capacity of 60,000m³ Erosion is happening on dyke that separates water source and contaminated man made lake (See photo 1). The road on the dyke is only used by Transport Canada, or NavCanada to access an antenna. Discussions with CGS is ongoing into who maintain the road/dyke.</li><li>At the time of the inspection a yellow triangle sign was observed titled HAL 1 at the pump house of the water treatment facility indicating a monitoring site.</li></ol>			



3. The water reservoir appeared to be working as intended(photo 4).
4. Two pumping stations at the Water Storage Reservoir. One for community, and another for the North Warning Site.
5. It was suggested that the flow metre wasn't working at the time of the inspection. But, upon closer inspection the flow metre appeared to be working, and used to record usage amounts . At the time of the inspection the flow metre read 53422.8m³ (photo 2), and the logs read the same amount as of July 11, 2018 on the log sheet (See photo 3 ). The monthly water consumption report recorded 0053422.8m³ used for August 12, 2020 totals for the month.

Water Treatment Facility

6. The Water Treatment Facility consists of two cells. Cell #1 is the south side cell of the two; whereas, Cell #2 is the north side of the two cells. At the time of the inspection their was testing of the repairs, so sewage was transferred from one lagoon to the other (photo 5).
7. The fencing looked like it was operating as intended, but the base of the fencing looked as if it was causing some structural damage to the lagoon walls, this may need to be maintained and should be monitored.
8. The freeboard was in good standing above 1 metre.
9. A leak was observed at the South East corner of Cell # 1 at the time of the inspection (See photo 6). A spill report was requested to be submitted. On June 24, 2019 at 16:00 hrs a Spill Report – Spill 2019-253 was submitted to the Spill Line as per Part B: Subsection 6. On June 26, 2019 an update was submitted to the Spills line with an estimated quantity of 593317 litres, and a 10,000 square metres area of contamination. The reason was a cracked liner, damaged as result of sewage seeping/leaking through the berm to the sandy wetlands. The migration of waste travelled through the sandy wetlands for 3km before being received by the receiving marine environment. The type of lagoon is exfiltration, and its natural migration was the same migration path of the spill. No concerns of spill migrating to any fresh water, or impacting any fish bearing waters. This spill will not be closed off till all obligations for follow up have been met. Another occurrence at the same lagoon generated another spill report 2020-198. The leak spilled 7843869 Litres of sewage. These two spill reports will be closed together when the obligations for post clean-up have been met (photo 7).
10. At the time of the inspection it was observed that an unauthorized use of water was taking place the site of the testing of the repairs to the sewage lagoon by the contractor. the SAO said it was the Government of Nunavut's contract, and reminded the SAO and BR of the obligation to receive authorization to withdrawal water, look for clarification from NWB, and the activity should be stopped, until further authorization is obtained. Although this is a serious contravention of the license, the contractor wasn't aware that they needed authorization to withdrawal water from an unauthorized source. They stopped the withdrawal of water from the unauthorized source when informed. It was not determined how much was withdrawn from the unauthorized location (photos 8-10).

Solid Waste Facility

11. The Solid Waste Facility located next to the Water Treatment Facility segregates their waste into metals, burnable waste, hazardous waste, and woods.
12. Fencing requires maintenance around burnable waste section.
13. Hazardous waste is located throughout in the Solid Waste Facility. This should be removed and segregated appropriately and deposited into the Hazardous Waste Disposal Facility. (See photo 11).
14. The Hazardous Waste section is a non engineered berm, with a liner. The liner may not be a proper liner. (See photo 13).

SECTION 2	<input type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input checked="" type="checkbox"/> Action Required
The following information is a summary of the actions Required by the licensee to promote and ensure compliance: <div><div>• Maintain fencing at burnable waste facility</div><div>• Remove hazardous waste from bulk metal storage facility, deposit in the Hazardous Waste Storage Facility ( see photo 11).</div><div>• Seek consultation about the interaction of wildlife at the water reservoir.</div><div>• Only withdrawal water from an authorized source.</div><div>• Report all spills within hazardous waste facility, the solid waste facility, the 2 cell sewage lagoons, the water source, water storage, and water treatment/pump house facility as per conditions of water license</div></div>			
SECTION 3	<input type="checkbox"/> Comments	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required

Nunavut Waters and Nunavut Surface Rights Tribunal Act

Subsection 11. (1) Subject to subsection (2), no person shall use, or permit the use of, waters in Nunavut except in accordance with the conditions of a licence.

3BM-HAL2025 Water License

Part C: Item 1

1. The Licensee shall obtain all fresh water from Water Supply Lake using the Water Supply Facility or as otherwise approved by the Board. The annual quantity of water use for all purposes under this Licence shall not exceed forty thousand (40,000) cubic metres per year and a maximum of two hundred and ninety-nine (299) cubic metres per day.

Licensee or Representative	Inspector's Name
Bhabesh Roy	Joseph Monteith
Signature	Signature
Date	Date
	August 25, 2020

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

PHOTO LOG

Date	Camera	Inspector
August 12, 2020	Nikon Coolpix N16D3-52000738	Joseph Monteith
Photo Log #1	Location:	
Photo 1	Hall Beach	
		
Description: Water Source on left hand side of road wall. – 60,000 metres cubed capacity		



Photo Log

Photo 2

Location

Hall Beach



Description: Water Metre – reads 0053422.8

Photo Log

Photo 3

Location

Hall Beach

for the month of: July

Drivers Name:	Date:	Start Meter Read:	End Meter Read	Time:	Total:
Silas	07-27-20	0699250.9	0699693.2	16:45	
Silas	07-27-20	0699693.2	0700117.7	18:43	
Silas	07-27-20	0700117.7	0700559.5	19:40	
Silas	07-27-20	0700559.5	0701008.1	19:52	
Samuel	07-27-20	0701008.1	0701434.5	21:22	
Silas	07-27-20	0701434.5	0701863.5	21:44	
Samuel	07-27-20	0701863.5	0702295.9	22:39	
Samuel	07-27-20	0702295.9	0702734.4	23:45	
Silas	07-28-20	0702734.4	0703169.1	10:07	
Samuel	07-28-20	0703169.1	0703567.0	11:28	
Samuel	07-28-20	0703567.0	0704006.6	13:54	
Silas	07-28-20	0704006.6	07000443.7	14:09	Reset
Samuel	07-28-20	07000443.7	07000875.4	15:38	
Silas	07-28-20	07000875.4	07001319.2	16:47	
Samuel	07-28-20	07001319.2	07001530.9	17:00	
Silas	07-28-20	07001530.9	07001835.2	19:17	
Samuel	07-29-20	07001835.2	07002278.6	9:42	
Silas	07-29-20	07002278.6	07002717.4	10:24	
Solomon, Norman Airport	07-29-20	07002717.4	07003211.6	10:53 AM	
Samuel	07-29-20	07003211.6	07003649.2	11:31	
Silas	07-29-20	07003649.2	07004087.1	13:46	
Airport	07-29-20	07004087.1	07004317.0	14:20	
Samuel	07-29-20	07004317.0	07004761.5	14:23	
Airport	07-29-20	07004761.5	07005461.4	15:14	
Silas	07-29-20	07005461.4	07005887.8	15:39	
Samuel	07-29-20	07005887.8	07006336.5	16:24	
Samuel	07-29-20	07006336.5	07006696.4	19:12	
Samuel	07-29-20	07006696.4	07006884.3	20:37	
Samuel	07-30-20	07006884.3	07007323.2	9:54	
Silas	07-30-20	07007323.2	07007773.6	10:07	
Samuel	07-30-20	07007773.6	07008206.0	11:29	
Samuel	07-30-20	07008206.0	07008580.6	16:45	
Samuel	07-30-20	07008580.6	07009020.5	13:56	

Description: Water Usage Logs from Water Pump House – 00090205 on July 30, 2020




Photo Log	Location
Photo 4	Hall Beach



Description: Water Source: Bird Droppings were observed throughout the perimeter of the water source. The Community members expressed concern of contamination from foxes and birds.

Photo Log	Location
Photo 5	Hall Beach



Description: Testing the completion of the repairs to the sewage Lagoon, by pumping sewage from the other lagoon into the newly repaired lagoon.



Photo Log	Location
Photo 6	Hall Beach
	
Description: New supports installed at the base of the sewage lagoon.	

Photo Log	Location
Photo 7	Hall Beach
<div><div>spill-2020198</div><div><div>View</div><div>Edit</div><div>Timeline</div><div>Revisions</div></div><div>Monday, June 29, 2020 - 09:12</div><div><div>Spill Status</div><div><div>Lead Agency: CIRNAC - Crown-Indigenous Relations and Northern Affairs Canada</div><div>Spill Status: Open</div><div>Occurance Date/Time: Saturday, June 27, 2020 - 10:00</div><div>Received Method: Email</div><div>Potential Spill: No</div><div>Responsible Party/Vessel Address: Canada</div><div>Contractor Address: Canada</div></div></div><div><div>Spill Information</div><div><div>Spill Region: Baffin</div><div>Spill Location: Hall Beach, Community, Nunavut</div><div>Spill Location Description: Hall Beach Sewage Lagoon</div><div>Geolocation: Geolocation is 68.772735, -81.235208</div><div>Land Sea Indicator: Land</div><div>Spill Source: Sewage Lagoon</div><div>Spill Cause: Breakage</div><div>Product Spilled: Wastewater (sewage, mine tailings)</div><div>Product Spilled Description: Sewage</div><div>Spill Quantity: 7843869.00</div><div>Measurement: Litres</div></div></div><div><div>Supporting Information</div></div></div>	
Description: Spill Report 2019253 – Point Source of Spill is still being repaired. New occurrence for same spill source 2020 -198	



Photo Log	Location
Photo 8	Hall Beach



Description: Water Hose from water pump and unauthorized water source location.

Photo Log	Location
Photo 9	Hall Beach



Description: Unauthorized withdrawal of water from pond situated across the road from repaired sewage lagoon.





Photo Log	Location
Photo 10	Hall Beach
	
Description: Unauthorized withdrawal of water from pond situated across the road from repaired sewage lagoon.	

Photo Log	Location
Photo 11	Hall Beach
	
Description: Hazardous Waste: Open Paint Cans, and other hazardous waste laid across the bulk metal section of the Solid Waste Facility.	




Photo Log	Location
Photo 12	Hall Beach
	
Description: Unreported spills observed throughout the Solid Waste Facility.	

Photo Log	Location
Photo 13	Hall Beach
	
Description: Hazardous Waste Section of the Solid Waste Facility. Non-engineered walls prevent water from entering and mixing with Hazardous waste.	




Photo Log	Location
Photo 14	Hall Beach



Description: Hazardous Waste sea can is locked. Public must go to hamlet office to request proper disposal.


Photo Log	Location
Photo 15	Hall Beach



Description: Hazardous Waste: Battery within the bulk metals section. Hazardous Waste should be segregated from the rest of the domestic and metal waste.



Photo Log	Location
Photo 16	Hall Beach
	
Description: Bulk Metals : Signs of hazardous waste spill unreported, and unsegregated hazardous waste.	

Photo Log	Location
Photo 17	Hall Beach
	
Description: Bulk Metal Storage. A separate Bulk Metal Storage Facility, with Government of Nunavut vehicles in it.	