

WATER LICENCE INSPECTION FORM

☒ Original

☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Pond Inlet	Bhabesh Roy, and Samuel Ootoova
Licence No. / Expiry	Representative's Title
3BM-PON2025	Engineer, Community Forman, Engineer Assistant
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection	Inspector
July 23, 2021	Joseph Monteith
Activities Inspected	

☐ Camp

☐ Drilling

☐ Mining

☐ Construction

☐ Reclamation

☐ Fuel Storage

☐ Roads/Hauling

☒ Other: Water Source, Solid Waste Facility, and Waste Water Treatment Facility , General Conditions

☐ 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	1
C: CONDITIONS APPLYING TO SECURITY				NI	
D: CONDITIONS APPLYING TO WATER USE				A	2-6
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT				C	7-17
F: CONDITIONS APPLYING TO MODIFICATIONS				NA	
G: CONDITIONS APPLYING TO CONSTRUCTION				NA	
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING				A	18 & 19
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING				NA	
J: CONDITIONS APPLYING TO MONITORING				A	
SCHEDULES				A	
*The observation number corresponds with specific comments provided below.					
Samples taken by Inspector:		Location(s): N72° 41' 31.8" W77° 57' 55.0"			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

SECTION 1

☐ Comments (s.\_\_)

☐ Non-Compliance with Act or Licence (s.\_\_)

☐ Action Required (s.\_\_)

BACKGROUND

The Hamlet owns and operates a Water Supply Facility, Sewage Disposal Facility (Sewage Lagoon), Solid Waste Facility, Land Farm Facility, and a Bulky Metal Site for the purposes of providing relevant services to its approximately 1,529 residents.

Their amendment renewal application 3BM-PON2025 authorizes the Hamlet to withdraw 67,000 cubic metres of water annually. The Hamlet indicated in its application that the projected water requirement for the community by 2019 is 203 cubic metres per day, or approximately 75,000 cubic metres per day or 75,000,000 Litres per year. The licence also states that maximum daily water use for the entire term of the licence is restricted to 299 cubic metres per day or 109,135,000 Litres per year. WRO Monteith has elected to articulate the translation in cubic metres per day into litres per day due to the convention of the Hamlets to report their usage based on litres.

In 2020, a emergency was issued for the community after a water pump replacement activity damaged the communities water pipe and pump.

**Inspector Statement**

On July 23, 2021, a water licence was conducted by Water Resource Officer (WRO) Joseph Monteith on 3BM-PON1520 at the Hamlet Pond Inlet, Qikiqtani Region, Nunavut.

**General Conditions**

1.On January 29, 2021 Richard Dwyer, Nunavut Water Board, Manager of Licencing emailed Water Resource Officer(WRO) Monteith a copy of the Hamlet of Pond Inlet’s 2020 Annual Report. Satisfying the General Requirement of subsection 1 of the submission of an Annual Report.



Water Use and Related Structures

- 2. Water is being withdrawn from Salmon Creek using a water pump (photo 1) and piped to a reservoir. From the reservoir (photo 3 & 4) a water treatment plant/pump house (photo 2) withdraws the water to trucks where the water is chlorinated as approved by the Water Licence.
- 3. The pipe that is used to pump from Salmon Creek to the Reservoir has a fish mesh screen. The pipes are disassembled after every recharge and reassemble for the recharging of the reservoir. They use 5 pipes. The length of the pipe is approximately 150 feet long. They are 8 inch in diameter. The reservoir pipe also has a fish mesh screen, and a 4 inch diameter inner pump in the pipe. The depth of the pipe at the reservoir is approximately 10 metres.
- 4. An emergency was issued for the community after a water pump replacement activity was taking place. The pipe started to slump, or upon installation a bend in the pipe, didn't provide any room for the pipe to be replaced. When the hamlet attempted to withdrawal the pump out, it damaged the pipe. The community had to withdrawal water using water pumps, and the water trucks. During the summer the community was able to do some repair to the water treatment plant, and the withdrawal pipes, to withdrawal water using the treatment plant again.
- 5. The flow meter in the pump house was not working during time of the inspection. The municipality records the amount withdrawn from trucks, and recorded in a log book.
- 6. On November 16, 2021 Lily Ootoova, wsclerk, Hamlet of Pond Inlet provided the Water Usage Report from January 2021, to October 2021. Show 45 616m<sup>3</sup> withdrawn (photo5).

Waste Water Treatment Facility (photo 6, 11)

- 7. At the time of the inspection the sewage lagoon was in-use. The amount of sewage in the lagoon was low due to a leak in the berm walls of the sewage lagoon (photo 13). On the North East side, lots of sewage was laid across the landscape (photo 12). A large metal slab appears to be covering the leak in the sewage lagoon (photo 13).
- 8. During decanting water is pumped over the berm wall, and takes 2 weeks to decant. The hose does not have heat tracing to encourage unfreezing of the pipe. The original decanting pipe is integrated in the berm wall, and is frozen and inoperable(photo 16).
- 9. Wind tends to blow garbage from the domestic waste facility into the lagoon. Fencing should be erected on the corner of the south side and along a portion of the south side of the lagoon walls to prevent any building up of garbage in the lagoon. This accumulation of garbage over time may compromise the lagoon.

Solid Waste Facility (photo 6, 14)

- 10. The licensee manages the domestic waste by open burning, and capping. But, does not do it often due to the direction of the prevailing winds, which cause the smoke to blanket the community which in turn causes complaints by the community. The fire department tend to go up and extinguish the dump fires.
- 11. The community land fill has proper signage.
- 12. The land farm does segregate all their waste into bulk metal, woods, and hazardous waste(photo 6).
- 13. A secondary containment structure, with secondary containment sits empty with only windblown debris in the solid waste facility (photo 15).
- 14. Standing water in the bulk metals facility (photo 14).

Hazardous Waste (photo 6, 7, 8, 9, 10)

- 15. Hazardous Waste batteries and waste oil buckets were observed throughout the metals section of the land fill. It was encouraged at the time of the inspection to consolidate waste batteries and waste oil drums to segregate them to the hazardous waste sea can area. This site runs contrary to Part D: Item 14.
- 16. At the time of the inspection it was observed that numerous amounts of the hazardous waste were deposited next to fresh water which runs contrary to Part D: Item 2(photo 8-9).
- 17. The hazardous Waste is separated in 3 areas. On the far side of the waste water facility is a couple of sea cans, open, and exposed to the elements titled Hazardous Waste sea can 1. In the middle of the hazard waste section titled Hazardous Waste Drums (photo 8-9). All the drums surrounding the water body is noncompliance with Part D: Item 2. And Part D: Item 14. The drums appear to be scattered around that area, and form a line up towards the front section of the Hazardous Waste Sea Can 2 as titled in (photo 10). A wire gate is put in place to prohibit the public from depositing any hazardous waste deeper into the hazardous waste area. The front of the hazardous waste sea can 2 has two sea cans both with signage (photo 10).

Spill Reports

- 18. Spill Report 2020-288 was submitted on August 24, 2020, with an occurrence date of August 18, 2020. The report was submitted because of an unauthorized discharge from a suspected leak the East side of the Sewage Lagoon. The estimated amount spilt was 20,000 m<sup>3</sup> of sewage. The Hamlet stated they would work with CGS on leak detection, and remedial action.
- 19. Spill Report 2021-130 was submitted on August 20, 2021, with an occurrence date of April 14, 2021. The report was submitted because of an unauthorized discharge from a suspected leak the East side of the Sewage Lagoon. The estimated amount spilt was half the amount of water withdrawn from 2020 as stated in an email from Bhabesh Roy. The Hamlet stated they would work with CGS on lead detection, and remedial action(photo 6, 11, 12, 13).

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:

- Consolidate all Hazardous Waste observed throughout the Solid Waste Facility to the Hazardous Waste Facility;
- Report any unauthorized discharges of waste to the Spills line, and deploy the Spill Contingency Plan, and submit to the inspector a detailed report;
- Repair the Sewage Disposal Facility in such a manner to prevent structural integrity;
- remove the waste drums located at the hazardous waste drums area as indicated in photos 8 & 9; 31 metres away from the water body, and store at the Hazardous Waste Facility in a manner to prevent the deposit of deleterious substances into any water, until such time that the drums will be removed for proper disposal;
- As per Part D: Item 10; The Licensee shall direct Petroleum Hydrocarbon Impacted Soil to the Land farm Facility.
- Submit reports as per Part F: Item 7 (c).
- Submit an update to the Spill Lines in regards to Spill report 2021-130

SECTION 3	<input type="checkbox"/> Comments	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
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-Under the *Nunavut Waters Nunavut Surface Rights Tribunal Act*  
Subsection 12 (1)  
Deposit of Waste 12.(1) Subject to subsection (2) and except in accordance with the conditions of a licence, no person shall deposit or permit the deposit of waste

- (a) In waters in Nunavut; or
- (b) In any other place in Nunavut under conditions in which the waste, or any other wastes that results from the deposit of that waste, may enter waters in Nunavut.

- Part D: Item 2  
The Licensee shall locate areas designated for Waste disposal at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any Water body such that the quality, quantity or flow of Water is not impaired, unless otherwise approved by the Board in writing.


-Part D: Item 14  
The Licensee shall segregate and store all hazardous materials and Hazardous Waste within the Solid Waste Disposal Facility in a manner to prevent the deposit of deleterious substances into any Water, and until such time that the materials have been removed for proper disposal at a licensed facility.

-Part D Item:15  
The Licensee shall implement measures to ensure leachate from the Solid Waste Disposal Facility does not enter Water

-Part B: Item 6  
The Licensee shall immediately report to the 24-Hour Spill Report Line (867-920-8130), any spills of Waste which are reported to or observed by the Licensee, within the municipal boundaries or in the areas of the Water Supply or Waste Disposal Facilities.

-Part F: Item 7  
If during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:

- a. employ the appropriate contingency measures within the Spill Contingency Plan, approved for the Hamlet of Pond Inlet;
- b. report the incident immediately via the 24-Hour Spill Reporting Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
- c. submit to the Inspector, a detailed report, not later than thirty (30) days after initially reporting the event, that provides the necessary information on the location (including the GPS coordinates), initial response action, remediation/clean-up, status of response (ongoing, complete), proposed disposal options for dealing with contaminated materials and preventative measures to be implemented.

Licensee or Representative	Inspector's Name
Bhabesh Roy	Joseph Monteith
Signature	Signature
	
Date	Date
	November 6, 2020

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



Photo Log

Date	Camera	Inspector	
August 22, 2020	Nikon Coolpix	Joseph Monteith	
Photo Log #	Location		
Photo 1	Pond Inlet, NU		
			
Description: Salmon River: Water Source. Reservoir recharging location.			

Photo Log	Location
Photo 2	Pond Inlet, NU
	
Description: Truck Refill Station	





Photo Log	Location
Photo 3	Pond Inlet, NU
	
Description: Water Reservoir: 2020 Water Emergency. The pump inside the pipe damaged the pipe when extracting the pump.	

Photo Log	Location
Photo 4	Pond Inlet, NU
	
Description: During the beginning of the water emergency, the hamlet staff was withdrawing from the other side of the reservoir using trucks.	



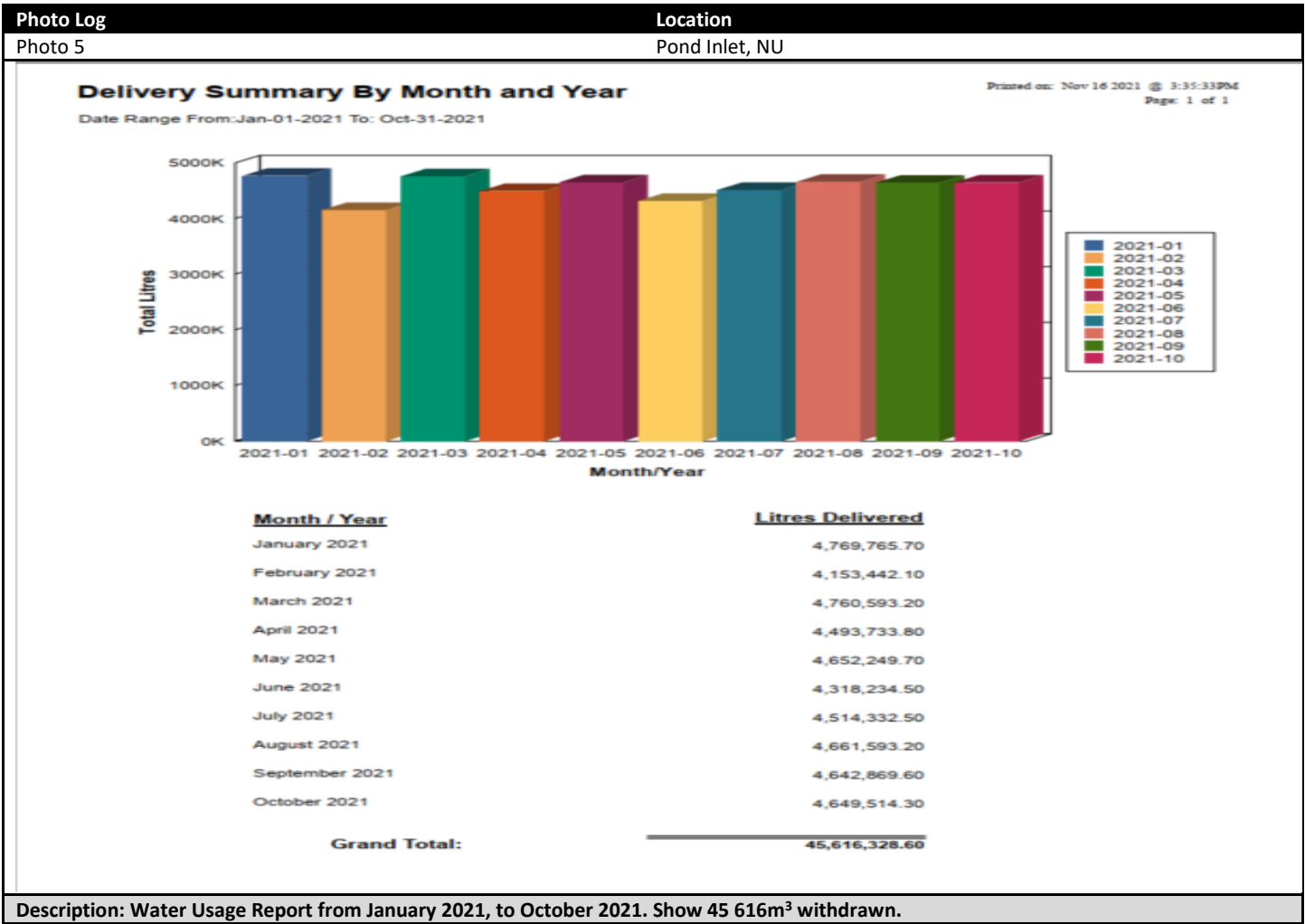




Photo Log	Location
Photo 7	Pond Inlet, NU



Description: Hazardous Waste Sea Can 1 – Hazardous Waste exposed to the outside elements. Windblown garbage in water stream

Photo Log	Location
Photo 8	Pond Inlet, NU



Description: Hazardous Waste Drums – drums stored around, and in water. Fencing damaged. Water on both sides of fence. Water body is merged. Waste has migrated outside of the fenced area.




Photo Log	Location
Photo 9	Pond Inlet, NU



Description: Hazardous Waste Drums – Stored around water, and in water. Signs of spill in front of palletted drum. Some work was done to mitigate any potential spills. The drums were more uniform, and not stacked up this year.

Photo Log	Location
Photo 10	Pond Inlet, NU



Description: Hazardous Waste Sea Can 2.





Photo Log	Location
Photo 11	Pond Inlet, NU

Description: It was observed that the sewage lagoon did appear to be a little low at the time of the inspection. A spill was reported at East wall of the sewage lagoon.

Photo Log	Location
Photo 12	Pond Inlet, NU

Description: On the North East side of the Sewage Lagoon, a lot of sewage was observed to be on the spread across the landscape.





Photo Log  
Photo 13

Location  
Pond Inlet, NU



Description: The leak in the sewage lagoon appears to be under the metal slab.

Photo Log  
Photo 14

Location  
Pond Inlet, NU



Description: Surface water accumulates in the Bulk Metal. Lots of signs of sheening.





Photo Log	Location
Photo 15	Pond Inlet, NU



Description: A decommissioned engineered berm, with lining for Contaminated soils. Could be used to store contaminated soils, or waste.

Photo Log	Location
Photo 16	Pond Inlet, NU



Description: A monitoring station downgrade of the discharge point of the sewage lagoon.