



Hamlet of Aklavik
P.O. Box 88
Aklavik, NT X0E 0A0

August 20, 2021

Attention: Lloyd Petrie, Senior Administrator Officer

File Number: N3L3 - 0570
Type of Operation: Type B - MUNICIPAL

Dear Mr. Petrie,

An inspection of the above noted operation was conducted on August 4, 2021 by Water Resource Officer, Lloyd Gruben. Enclosed is a copy of the Municipal Water Use Inspection Report.

Please note and address the action items listed in the attached report. Of special note, please ensure that all used oil and/or waste fuel is transferred into approved containers and stored in accordance with the *Used Oil and Waste Fuel Management Regulations*.

It is the responsibility of the Incorporated Hamlet of Aklavik to ensure that they are in compliance with the conditions of *Water License N3L3-0570* and any associated *Acts and Regulations*.

Please extend my thanks to Brandon Mcleod and Manny Arey for their assistance provided during the inspection.

Please contact me at (867) 678-6652, or the Regional Environmental Coordinator, Alicia McRae, at (867) 678-6653 if you have any questions or concerns with regard to the attached report. I look forward to working with the Hamlet in order to achieve voluntary compliance with license conditions and any *Acts and Regulations*.

Sincerely,

Lloyd Gruben
Water Resource Officer
Environment and Natural Resources
P.O. Box 2749
Inuvik, NT X0E 0T0
Ph: (867) 678-6652
Cell: (867) 678-0623

Cc: Ernie Francis, A/Manager, Wildlife and Environment – Environment & Natural Resources
Mardy Semmler, Executive Director – Inuvialuit Water Board
Bijaya Adhikari, Science and Regulatory Coordinator - Inuvialuit Water Board
Mayor and Council – Incorporated Hamlet of Aklavik
Rick Walbourne, A/Manager Water Regulatory – ENR
Wendy Bidwell, Senior Water Resource Officer - ENR

P.O. Box 2749, Inuvik, NT X0E 0T0



WATER USE INSPECTION REPORT

LICENCE #:	N3L3 - 0570	EXPIRY DATE:	November 30, 2024
LICENCEE:	Incorporated Hamlet of Aklavik	PREVIOUS INSPECTION:	August 21, 2019
COMPANY REP:	Lloyd Petrie	INSPECTION DATE:	August 4, 2021

WATER SUPPLY

Source:	Peel River	Quantity Used:	N/I
Owner/Operator:	Hamlet of Aklavik	Meter Reading:	N/I

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Intake Facilities	A	Storage Structures	U	Treatment Systems	A	Recycling	N/A
Flow Meas. Device	A	Conveyance Lines	A	Pumping Stations	A	Chem. Storage	U
						Modifications	A

Water Supply Comments:

- Some records and logs at the Water Treatment Plant (WTP) were available at the time of the inspection and were up-to-date.
- In lieu of the annual report, the Inspector requested electronic copies of the water logs for review and filing. The Inspector will review logs when received.
- The interior of the WTP is clean and well organized.
- The access road to the WTP will require maintenance as there are pot holes and water pooling underneath the potable water fill station (see Figure 1).
- The WTP is equipped with a small spill kit inside and a larger spill kit outside.
- There are two WTP operators for the Aklavik WTP.
- The Inspector was informed that all chemicals and reagents were removed from the WTP as per direction from Workers' Safety & Compensation Commissions (WSCC). The chemicals are being temporarily stored at the Hamlet Garage. The Hamlet is in the process of having an addition built in the WTP for the long term storage of the chemicals.

WASTE DISPOSAL - SEWAGE

Disposal Method		Primary Treatment					
Mechanical	No	Camp Sump	No	Natural Water Body	Yes	Wetland Treatment	Yes
Continuous Discharge	Yes	Intermittent Discharge	No	Seasonal Discharge	No	Land Spread	No
Accelerated Biological	No	Other	N/A				



WATER USE INSPECTION REPORT

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Discharge Quality	A	Decant Process & Structures	N/A	Discharge Measurement Device	N/I
Freeboard	A	Sludge Disposal Method	N/A		
Periods Of Discharge	Continuous			SNP Samples Collected	No
Effluent Discharge Rates	Natural outflow into wetland				

Sewage Comments:

- During the inspection, the Inspector observed the sewage truck spilling sewage onto the ground in front of the sewage disposal chute during disposal. The sewage was pooling in front of the Sewage Disposal Chute (See Figure 2). The spill (Spill 2021331) was reported to the NWT Spill Line, by the Inspector, on August 6, 2021.
- ENR worked with the Hamlet of Aklavik to ensure clean-up. The contaminated soil has since been removed and contained and is currently being stored until it can be shipped to a registered Receiver. ENR will continue to work with the Hamlet to ensure proper storage and disposal.
- The sewage waste disposal chute is in poor condition and is currently propped up with a five gallon pail (see Figure 3). ENR recommends that the Hamlet adequately address maintenance requirements for the chute as soon as possible to prevent further spills, and budget for a new sewage waste disposal chute.
- ENR strongly recommends that the Hamlet conduct regular inspections at the sewage waste disposal facility and report all spills as per *Section 4 of Part G of Water Licence N3L3-0570*.
- There is a plastic tote half filled with what appears to be waste oil at the sewage waste disposal facility (see Figure 4). ENR recommended that all waste oil be transferred into sealable containers and stored in accordance with *Section 5 of the Used Oil and Waste Fuel Management Regulations*.
- There was evidence of windblown litter, from the solid waste disposal facility, near the sewage waste disposal facility. ENR recommends that the Hamlet collect and dispose of all windblown litter as per *Section 6 of Part D of Water Licence*.

WASTE DISPOSAL – SOLID WASTE

Disposal Method		Landfill					
Open Dump	No	Landfill	Yes	Burn & Landfill	No	Underground	No
Offsite Removal	No	Other	N/A				
Owner / Operator	Hamlet of Aklavik						



WATER USE INSPECTION REPORT

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable N/I - Not Inspected

Runoff Diversion	N/A	SNP Samples Collected	No
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Solid Waste Comments:

- The Hamlet designated an area for used oil (see Figure 5) for users to dispose of their used oil. The Hamlet placed a plastic tote in the Solid Waste Disposal Facility (SWDF) so users can empty their used oil into the plastic tote.
- The Inspector observed and noted numerous plastic drums, pails, and plastic totes filled with used oil throughout the eastside of the SWDF (See Figure 6-9). The Hamlet was instructed to contain and store all used oil in accordance with *Section 5.(1) and 5.(2) of the Used Oil and Waste Fuel Management Regulations*.
- The Hamlet shall designate an area for the temporary storage of used oil and other hazardous waste in accordance with *Section 9 of Part D of Water Licence N3L3-0570* and the *Used Oil and Waste Fuel Management Regulations*.
- There was a hydrocarbon (diesel fuel) odor near a stack of fuel tanks on the eastside of the Solid Waste Site Disposal Facility (See Figure 10). The Hamlet will need to address this by inspecting all fuel tanks and cleaning up any spills that are found in the area. ENR strongly recommends that the Hamlet provide ENR with regular updates during clean-up. [See Guideline for Contaminated Site Remediation.](#)
- There is also evidence of used oil spilling onto the ground in the Waste Oil area of the SWDF (see Figure 11-13). The Hamlet will need to clean-up these spills and ensure any resulting contaminated soils are properly stored prior to being shipped to a registered Receiver. Please contact the Inspector with any questions regarding spill clean-up and remediation.
- There is evidence of unauthorized disposal/improper storage of batteries within the SWDF. ENR recommends that that Hamlet designate an area within the temporary hazardous waste containment facility for this waste (see Figure 14). All received hazardous wastes must be stored in accordance with the licence requirements and as per the *Guideline for Hazardous Waste Management*.
- There is currently uncontrolled access within the SWDF, which makes it difficult for the Hamlet to manage and control what is deposited at the facility. ENR recommends that a gate be erected and maintained as per *Section 7 of Part D of the Water License N3L3 – 0570*.
- ENR also recommends that an attendant accompany facility users to ensure waste goes in the appropriate waste stream area. This will also prevent unauthorized waste deposits.
- Windblown debris was observed in all areas at the SWDF. ENR recommends that the Hamlet collect and dispose of all windblown litter at per *Section 6, Part D, of Water License N3L3-0570*.
- ENR also recommends more frequent cover and compaction of domestic/household waste to limit windblown debris and reduce wildlife attractants. The Hamlet should budget for more frequent cover of wastes at the facility.
- ENR also recommends that the Hamlet erect and maintain fencing around the perimeter of the SWDF to prevent windblown debris and wildlife from entering the area as per *Section 5 of Part D of the Water License N3L3 – 0570*.
- There is currently no designated area for propane tanks – propane tanks are being deposited in the used oil section of the SWDF (see Figure 15). ENR recommends that these items be stored in a designated area at the Hazardous Waste Containment Facility.



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- ENR strongly recommends that the Hamlet inspect all end-of-life vehicles, oil tanks, and appliances to ensure all hazardous waste fluids are drained prior to acceptance at the SWDF.
- There was new waste stream signs placed throughout the SWDF, but users are not depositing wastes at the appropriate locations. There were paint cans observed in the household waste area (see Figure 16). All paint wastes are to be removed from the household waste area and stored in the Hazardous Waste Containment Facility and disposed of as per the *Guideline for Hazardous Waste Management*.
- There were seven plastic totes, one of which had hazardous waste, disposed of in the household waste stream area (See Figure 17). ENR recommended that the totes be removed and stored with the hazardous waste.
- There was evidence of wastage of meat of big game in the household/domestic waste area (see Figure 18). The Hamlet reported that there were whole caribou carcasses in the SWDF during the winter/spring 2021. To reiterate, ENR suggests that the Hamlet control access to the SWDF to prevent the unlawful disposal of meat of big game and report all wastage to a Renewable Resource Officer.
- ENR recommends that the Hamlet designate an area to openly burn animal carcasses as per *Section 15 of Part D of Water Licence N3L3-0570*.

FUEL STORAGE

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Owner:	Hamlet of Aklavik	Operator:	Hamlet of Aklavik	Condition of tanks:	A
Berms & Liners	N/A	Water within Berm:	N/A	Evidence of Leaks:	A

Drainage Pipes	A	Pump Station and Catchment Berm	N/A	Runoff Diversion	A
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Pipeline Condition	A				
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Fuel Storage Comments:

- The fuel tank outside the WTP is double walled, in good condition and on stable ground with no evidence of heaving or shifting.
- There is an unused building located next to the WTP that uses a single walled fuel tank. ENR recommends that the Hamlet drain the tank if it is not in use.

SURVEILLANCE NETWORK PROGRAM

Samples Collected Licencee	Yes
Samples Collected ENR	Yes, samples were collected from SNP 0570- 1 and 0570 – 3.

Signs Posted: SNP	Yes/No	Warning	Yes
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Surveillance Network Program Comments:

- There is no sign for SNP 0570-1.



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- There was no sign for SNP 0570-2 and the Inspector did not observe any flow, so no samples were collected.
- The Hamlet must ensure that all SNP station locations are signed. The Hamlet is also required to submit a drawing or map of all Surveillance Network Program sampling stations as per *Item 1 of Part B, of Water Licence N3L3-0570*.
- The sign for SNP 0570-3 is located near the Sewage Waste Disposal Facility Chute (see Figure 2). ENR recommends that the sign be moved to the point of outflow where SNP samples are collected.
- The WTP Operator stated that he collected water samples in June 2021 from SNP 0570-3. ENR requested the results from those samples and reminded the Hamlet that SNP samples are to be collected from SNP 0570-3 immediately after break-up and monthly during the open water season as per *Section 2 of Annex A of Water Licence N3L3-0570*.
- ENR recommends the Hamlet consider cutting an ATV trail to SNP Station 0570-3 for easier access.

GENERAL CONDITIONS/REPORTS/PLANS

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

C &R Plan	N/A	Records & Reporting	U	Final Report	N/A
Geotechnical Inspection	N/A	Posting, Signage	U	Contingency Plan	U
Restorations Activities	N/A	Spills	U	O&M Plan	U
Maintenance	U	Modifications	A	Annual Report	U

General Condition Comments

- ENR requested copies of all WTP logs.
- The Hamlet posted new signs throughout the Solid Waste Disposal Facility, but uncontrolled access to the facility with no attendant present to guide users has hindered proper waste segregation and placement at these designated waste areas.
- The Unauthorized Discharge Contingency Plan was due January 11, 2020 as per *Section 1 of Part G of Water Licence N3L3-0570*. ENR strongly recommends that the Hamlet submit the plan to the Inuvialuit Water Board (IWB)) as soon as practicable.
- ENR reported the sewage spill 2021331 and ensured clean-up. The file will remain open until the contaminated soil is transferred from the plastic totes to appropriate containment and shipped to a registered Receiver.
- In the future, ENR strongly recommends that the Hamlet report all spills to the NWT Spill Line and to the IWB as per *Section 4 of Part G of Water Licence N3L3-0570*.
- The Operations and Maintenance Plan for the Solid Waste Disposal Facility was due January 11, 2020 as per *Section 16 of Part D of Water Licence N3L3-0570*. ENR recommends that the Hamlet submit the Operations and Maintenance Plan for the Solid Waste Disposal Facility to the IWB as soon as practicable.
- The Operations and Maintenance Plan for the Sewage Waste Disposal Facility was due January 11, 2020 as per *Section 6 of Part E of Water Licence N3L3-0570*. ENR recommends that the Hamlet submit the Operations and Maintenance Plan for the Sewage Waste Disposal Facility to the IWB as soon as practicable.
- The Annual report was due April 30, 2021 as per *Section 1 of Part B of Water Licence N3L3-0570*. ENR recommends that the Hamlet submit the 2020 Annual Report to the Inuvialuit Water Board as soon as practicable.

ADDITIONAL COMMENTS/REMARKS

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- The Hamlet of Aklavik would greatly reduce unauthorized deposits of hazardous waste and the unlawful disposal of meat of big game if they control access to the Solid Waste Disposal Facility.
- Inspectors and other ENR expert staff are available to provide advice and answer any questions that the Hamlet may have with regard to proper management of their waste disposal facilities.
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MATTERS FOR FOLLOW UP

- Clean-up is required and more frequent monitoring and maintenance is required at the Used Oil Section of the Solid Waste Site Facility.
- Used Oil/Waste Fuel are to be transferred into approved containment and individually labeled.
- All stockpiled Hazardous Waste needs to be shipped to a registered Receiver as soon as possible to avoid spills and increased risk/liability.
- Used batteries destined for disposal are to be placed on pallets for storage until shipped to a registered Receiver.
- Grizzly Bears are frequently sighted in the SWDF. For that reason, ENR strongly recommends compacting and covering the domestic/household waste area at the facility with granular material in order to reduce attractants and to prevent windblown debris.
- SNP station signs are required for SNP 0570-1 and SNP 0570-2.
- The sign for SNP 0570-3 needs to be relocated to point of outflow.
- ENR strongly recommends controlled access to prevent unauthorized disposal of hazardous waste, and to implement better waste segregation within the SWDF.
- ENR strongly recommends better waste segregation and more frequent monitoring and maintenance within the SWDF.
- ENR strongly recommends replacement of the sewage disposal chute at the Sewage Waste Disposal Facility. Until this is implemented, the Hamlet must address maintenance requirements for the chute as soon as possible to prevent further spills.

NON-COMPLIANCE/VIOLATIONS OF ACT OR LICENCE

- Failure to comply with *Section 5 of the Used Oil and Waste Fuel Management Regulations*.
- Failure to construct and maintain a Temporary Hazardous Waste Containment Facility as per *Item 8 of Part D of Water Licence N3L3-0570*.
- Failure to dispose of hazardous waste within 180 days as per the *Guideline for Hazardous Waste Management*.
- Failure to collect windblown debris within the Solid Waste Disposal Facility as per *Item 6 of Part D of Water Licence N3L3-0570*.
- Failure to erect and maintain a gate with controlled access to prevent unauthorized deposits of waste as per *Item 7 of Part D of the Water License N3L3-0570*.
- Failure to erect and maintain fencing around the perimeter of the SWDF as per *Item 5 of Part D of the Water License N3L3-0570*
- Failure to submit an annual report for year 2020 as per Item 1 of Part B of the Water License N3L3 - 0570. The Inuvialuit Water Board (IWB) requested updates and or revisions stated in the letter to Mayor Andrew Charlie, dated June 29, 2020 to the:
 - Approved Spill Contingency Plan
 - Approved Solid Waste and Sewage Waste Disposal Facility Operation and Maintenance Plans
 - Approved Hazardous Waste Management Plan
 - Approved Close and Remediation Plan

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WATER USE INSPECTION REPORT

- Failure to submit analyzed SNP sample results as per *Item 2 of Part B of Water Licence N3L3-0570*.

REFERENCE MATERIAL

Water Licence N3L3-0570

https://www.inuvwb.ca/sites/default/files/191011_n3l3-0750_hamlet_of_ak_mwl_renewal_pkg.pdf

Used Oil and Waste Fuel Management Regulations

<https://www.justice.gov.nt.ca/en/files/legislation/environmental-protection/environmental-protection.r3.pdf>

Guideline for Hazardous Waste Management

https://www.enr.gov.nt.ca/sites/enr/files/resources/128-hazardous_waste-interactive_web_0.pdf

Environmental Guideline for Contaminated Site Remediation

<https://www.enr.gov.nt.ca/sites/enr/files/guidelines/siteremediation.pdf>

Inspector's Signature:



WATER USE INSPECTION REPORT

INSPECTION IMAGES



Figure 1 - Access Road to Water Treatment Plant



Figure 2 - Sewage Spill at the Sewage Waste Disposal Facility



WATER USE INSPECTION REPORT



Figure 3 - Sewage Waste Disposal Chute



Figure 4 - Plastic Tote stored in near the Sewage Waste Disposal Facility



WATER USE INSPECTION REPORT



Figure 5 - Used Oil Section of the Solid Waste Disposal Facility



Figure 6 - Improper Storage of Used Oil



Figure 7 - Used Oil Section in the SWDF



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Figure 8 - Improper Storage of Used Oil located on the eastside of the SWDF



Figure 9 - Improper Storage of Used Oil located on the eastside of the SWDF



Figure 10 - Fuel Tanks located on the East side of the SWDF.



WATER USE INSPECTION REPORT



Figure 11 - Plastic Tote with oil spilling from the top



Figure 12 - Oil Staining on the ground near the Used Oil Section of the SWDF



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Figure 13 - Oil staining on the ground near steel container with used oil



Figure 14 - Improper Disposal of Used Batteries



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Figure 15 - Propane Tanks in Used Oil Section of SWDF



Figure 16 - Paint cans and insulation in household waste stream area of the SWDF.



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Figure 17 - Plastic tote with some hazardous waste located in the household hazardous waste stream area of the SWDF.



Figure 18 - Evidence of Wastage of Meat of Big Game at the SWDF.

- **Hamlet of Aklavik NT**

- **Water Litre Useage**

- **March 2021 2898402 litres**

- **April 2021 2746052 litres**

- **May 2021 2772935 litres**

- **June 2021 2467811 litres**

- **July 2021 2717108 litres**



Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
211391

- FINAL REPORT -

Prepared For: GNWT - Environment and Natural Resources

Address: P.O. Box 2749
Inuvik, NT
X0E 0T0

Attn: Lloyd Gruben

Facsimile: (867) 678-6659

Final report has been reviewed and approved by:

A handwritten signature in black ink that reads "Glen Hudy".

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Monday, August 16, 2021

Print Date: Monday, August 16, 2021

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Taiga Environmental Laboratory
 4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
 Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
211391

- CERTIFICATE OF ANALYSIS -

Client Sample ID: 0570-3

Taiga Sample ID: 001

Client Project:
Sample Type: Water
Received Date: 06-Aug-21
Sampling Date: 04-Aug-21
Sampling Time: 16:26
Location: Aklavik
Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	< 2	2	mg/L	06-Aug-21	TEL019	
<u>Inorganics - Physicals</u>						
pH	8.74		pH units	06-Aug-21	TEL058	
Solids, Total Suspended	4	3	mg/L	06-Aug-21	TEL008	
<u>Microbiology</u>						
Coliforms, Fecal		1	CFU/100mL		TEL017	105
<u>Subcontracted Organics</u>						
Benzene		0.0005	mg/L		EPA 5021	16
Ethylbenzene		0.0005	mg/L		EPA 5021	16
Toluene		0.0005	mg/L		EPA 5021	16
Xylenes		0.0005	mg/L		EPA 5021	16

ReportDate: Monday, August 16, 2021
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4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
211391

- CERTIFICATE OF ANALYSIS -

Client Sample ID: 0570-3

Taiga Sample ID: 001

- DATA QUALIFIERS -

Data Qualifier Descriptions:

- 105** *Samples received past hold time; analysis not possible.*
- 16** *Test requested but no sample bottle received*

*** Taiga analytical methods are based on the following standard analytical methods**
SM - Standard Methods for the Examination of Water and Wastewater
EPA - United States Environmental Protection Agency