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Your file - Votre référence

Our file - Notre référence

November 29, 2002

**NWB3-PON9904**

Rhoda Kalsak
Senior Administrative Officer
Hamlet of Pond Inlet
P.O. Box 180
Pond Inlet, NU X0A 0S0

**RE: June 25, 2002 Municipal Water Use Inspection - Report**

The Water Resources Officer (WRO), appreciates the assistance provided during the tour of the Hamlet's water use and waste disposal facilities. Enclosed for your records is a copy of the Municipal Water Use Inspection Report performed on June 25, 2002. During the inspection the following observations were noted.

- **Water Supply**: The location of the reservoir refilling pipe intake, appeared to be in an acceptable location on the Salmon River (Photo 1). The water reservoir appeared to be at full capacity and covered in ice at the time of inspection (Photo 2). Enclosed sample analysis taken at the Water Intake Facility (PON-1), indicate that Nitrate + Nitrite (<0.008 mg/L vs 3.3 mg/L) meet the *Guidelines for Canadian Drinking Water Quality*. Attached analysis of potable water taken at (PON-1) indicate that Turbidity (2.4 NTU vs 1.0 NTU) and pH (6.62 vs 6.5-9) are close to or exceed the *Guidelines for Canadian Drinking Water Quality* Maximum Acceptable Concentrations.

- **Sewage Disposal Facility:** There are currently 3 Sewage Treatment Facilities at Pond Inlet. 1. The old sewage lagoon (Photo 7) which is reportedly not in use, 2. The new sewage lagoon (Photo 10) which has just undergone refurbishment to the berm of the lagoon, 3. And the current sewage disposal area (Photo 3); a stream that flows to the ocean. At the time of the inspection, the old sewage lagoon was discharging effluent (Photo 8). The present sewage disposal facility, consists of a rif-raf sewage truck decanting structure that allows sewage to enter a stream bed in a valley along side the dump (Photo 3 & 6). Samples were taken 100 meters from the sewage decanting area. Enclosed samples of effluent from the currently used Sewage Disposal Facility (PON-3) indicate Total Suspended Solids (10 mg/L vs 120 mg/L), Biological Oxygen Demand (27 mg/L vs 120 mg/L) and pH (7.54 vs 6.5-9) meet *Municipal Wastewater Effluent Quality Guidelines.* However analysis of Total Ammonia (19.4 mg/L vs 2.2 mg/L) are in excess of *Municipal Wastewater Effluent Quality Guidelines* Maximum Acceptable Concentration. Attached analysis from the Old Sewage Lagoon indicate that Total Suspended Solids (18 mg/L vs 120 mg/L), Biological Oxygen Demand (26 mg/L vs 120 mg/L) and Nitrate + Nitrite (0.162 mg/L vs 3.2 mg/L) meet the *Municipal Wastewater Effluent Quality Guidelines.* However analysis of Total Ammonia (2.4 mg/L vs 2.2 mg/L) are in excess of *Municipal Wastewater Effluent Quality Guidelines* Maximum Acceptable Concentration.

☐ **Solid Waste Disposal Facility:** The Solid Waste Disposal Facility had a fence to reduce wind blown refuge. It appears that the old waste oil disposal area had been cleaned up (Photo 4). All waste oil is drummed and stored at the Solid Waste Disposal Facility (Photo 11 & 12). The Solid Waste Disposal Facility seemed well managed with segregation of waste and signage throughout the dump.

☐ **Bulky Metal Dump:** Although not well segregated the bulky waste dump diverted metal scrap from the general dump area (Photo 9). Attached samples taken at the bulky metal dump (PON-2) indicate that Iron (0.64 mg/L vs 0.3 mg/L) exceed *the Municipal Wastewater Effluent Quality Guidelines.*

☐ **Non-Compliance of Act or Licence**: The Hamlet of Pond Inlet has yet to provide the NWB with 1999, 2000 and 2001 Annual Reports. Operational & Maintenance plan for the waste disposal facilities, and report detailing the Abandonment and Restoration (A&R) of municipal water and waste facilities are also required. Effluent from Dump seepage (PON-2), Sewage Facility (PON-3) and Old abandon Sewage Lagoon exceeds *Municipal Wastewater Effluent Quality Guidelines.*

If there are any concerns or questions in regards to this inspection, please contact me at (867) 975 4298 or bodykevichc@inac.gc.ca.

Sincerely,

Constantine Bodykevich
Water Resources Officer (WRO)
INAC, Nunavut District

cc. -Nunavut Water Board, Gjoa Haven (Jim Wall)
-CG&T, Iqaluit (Doug Sitland)
-Baffin Health & Social Services, Iqaluit (Shannon Mackie)
-EC Environmental Protection, Yellowknife (Anne Wilson)
- INAC Water Management, Iqaluit (Michael Roy)

# MUNICIPAL WATER USE INSPECTION REPORT

**Date:** June 25, 2002 **Licensee Rep. (Name/Title):** Rhoda Kalsak/ SAO

**Licensee: Hamlet of Pond Inlet** **Licence No.: NWB3-PON9904**

## WATER SUPPLY

**Source(s):** Salmon River /Reservoir **Quantity used:** Meter broken

**Owner:/Operator:** Hamlet of Pond Inlet

Indicate: **A** - Acceptable **U** - Unacceptable **NA** - Not Applicable **NI** - Not Inspected

**Intake Facilities:** A **Storage Structure:** A **Treatment Systems:** A **Chemical Storage:** U

**Flow Meas. Device:** U **Conveyance Lines:** NA **Pumping Stations:** A

**Comments:** The water reservoir was frozen at the time of inspection. The reservoir had recently been filled from the adjacent Salmon River. The water reservoir is presently not fenced; one should be installed encompassing the entire reservoir. The pump house requires maintenance to water meter and chlorination system.

## WASTE DISPOSAL

**Sewage:** **Sewage Treatment System** (Prim./Sec/Ter.): Primary; discharge in stream to ocean.

**Natural Water Body:** modified **Continuous Discharge** (land or water): water

**Seasonal Discharge:** **Wetlands Treatment:** very limited **Trench:**

**Solid Waste:** **Owner/Operator:** Hamlet of Pond Inlet

**Landfill:** **Burn & Landfill:** X **Other:**

Indicate: **A** - Acceptable **U** - Unacceptable **NA** - Not Applicable **NI** - Not Inspected

**Discharge Quality:** Sampled **Decant Structure:** NA **Erosion:** U

**Discharge Meas. Device:** NIL **Dyke Inspection:** U **Seepages:** U

**Dams, Dykes:** U **Freeboard:** A **Spills:** NIL

**Construction:** NA **O&M Plan:** U **A&R Plan:** U

**Periods of Discharge:** A **Effluent Discharge Rate:** Not Measured

**Comments:** At the time of inspection there were 3 Sewage Treatment Facilities: 1. The old abandon lagoon. 2. The new lagoon that had recently underwent berm reinforcement. 3. The current sewage treatment facility. The solid waste disposal site seemed fairly well operated with signage and fencing throughout. The old sewage lagoon should be decommissioned.

## FUEL STORAGE

**Owner/Operator:**

Indicate: **A** - Acceptable **U** - Unacceptable **NA** - Not Applicable **NI** - Not Inspected

**Berms & Liners:** A **Water within Berms:** A **Evidence of Leaks:** A

**Drainage Pipes:** NI **Pump Station & Catchment Berm NA**

**Pipeline Condition:** NI **Not Applicable:** **Condition of Tanks:** NI

## SURVEILLANCE NETWORK PROGRAM (SNP)

**Samples Collected** **Hamlet:** NIL

**IAC:** potable water, old sewage lagoon, new sewage lagoon, metal dump

**Signs Posted** **SNP:** NIL **Warning:** Solid Waste Disposal Facility

**Records & Reporting:** NIL

**Geotechnical Inspection:** NIL

**Non-Compliance of Act or Licence:** The following reports have yet to be submitted: Annual Reports and Operational & Maintenance Plan 1999, 2000, 2001 and Abandonment and Restoration plan for old Sewage Lagoon.

Constantine Bodykevich
**Inspector's Name**

CBod
**Inspector's Signature**

## Pond Inlet Inspection Pictures 2002

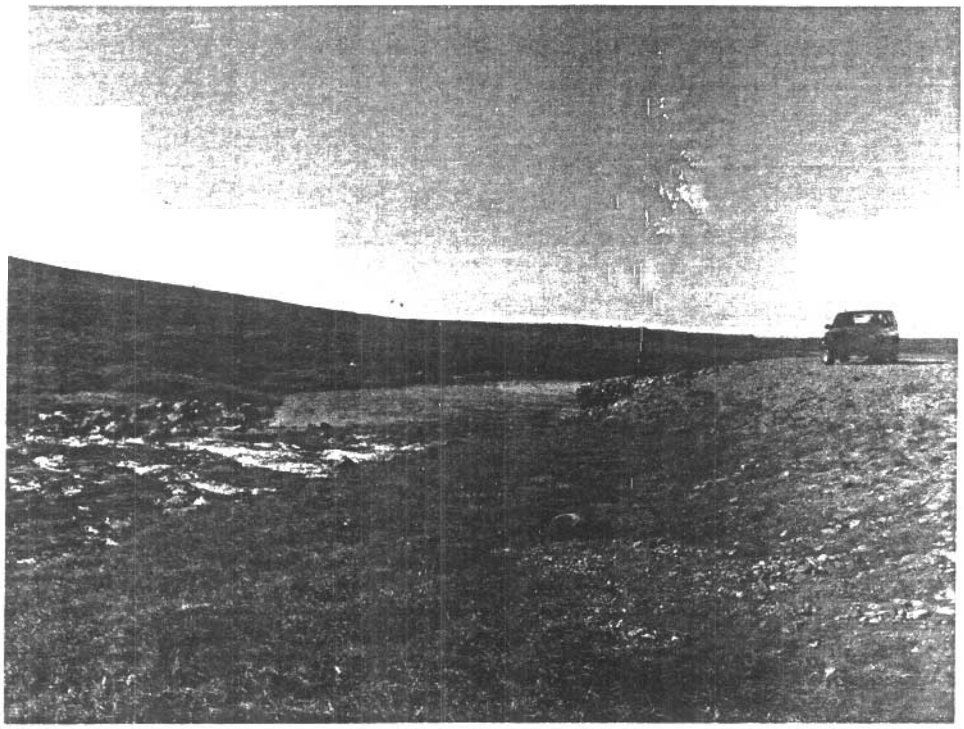

Photo # 1. Salmon River potable water supply.

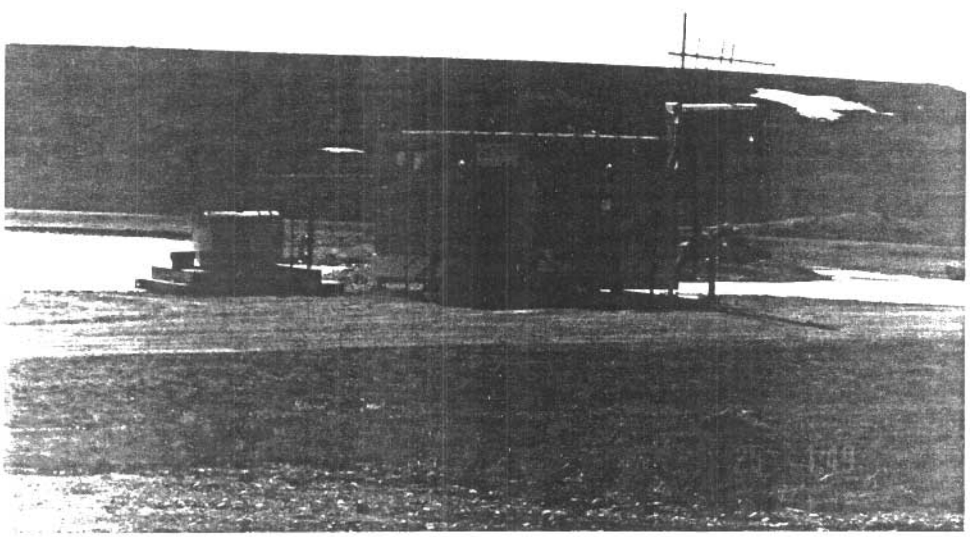

Photo # ater Intake Facility at water reservoir.

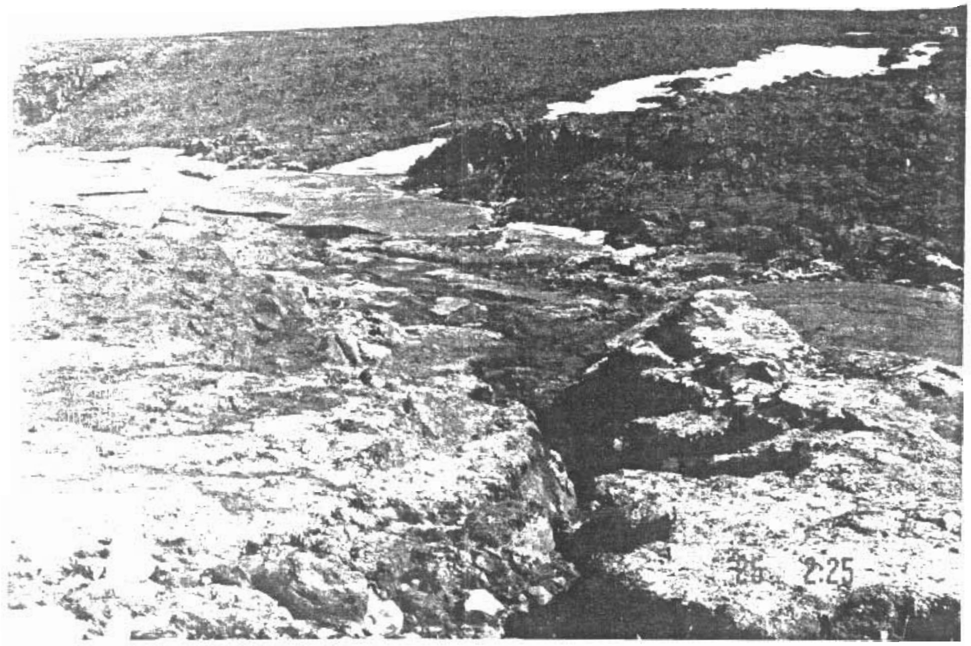

Photo # [illegible]. Sewage truck discharge structure at temporary Sewage Disposal Site.


Photo # 4. Solid Waste Disposal Facility location of Waste Oil cell. No drums of oil or appearance of oil contaminated soil was observed.


Photo # 5. Solid Waste Disposal Facility location of honey bag disposal area.

Photo #

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

# - CERTIFICATE OF ANALYSIS -

**Prepared For:** DIAND Nunavut District Office *Attn:* Constantine Bodykevi

**Sample ID:** 5 **Taiga Sample ID: 221814**

**Client Project:** **Sample Type:** wastewater **Received Date:** 02-Jul-02

Pon - 2
**Location:** Pond Inlet **Sampling Date:** 25-Jun-02

*Report Status:* **Final** *Approved by:*

| Test Parameter | Result | Units | Detection Limit | Analysis Date |
|---|---|---|---|---|
| Metals, Total | | | | |
| Aluminum | 251 | µg/L | 30 | 01-Aug-02 |
| Antimony | 0.8 | µg/L | 0.5 | 03-Jul-02 |
| Arsenic | < 1.0 | µg/L | 1.0 | 31-Jul-02 |
| Barium | 18 | µg/L | 1 | 03-Jul-02 |
| Beryllium | < 2 | µg/L | 2 | 03-Jul-02 |
| Cadmium | < 0.3 | µg/L | 0.3 | 03-Jul-02 |
| Cesium | < 0.4 | µg/L | 0.4 | 03-Jul-02 |
| Chromium | < 3 | µg/L | 3 | 03-Jul-02 |
| Cobalt | < 1 | µg/L | 1 | 03-Jul-02 |
| Copper | 4 | µg/L | 2 | 03-Jul-02 |
| Iron | 637 | µg/L | 30 | 16-Jul-02 |
| Lead | 2 | µg/L | 1 | 03-Jul-02 |
| Lithium | < 3 | µg/L | 3 | 03-Jul-02 |
| Manganese | 46 | µg/L | 1 | 03-Jul-02 |
| Molybdenum | 1 | µg/L | 1 | 03-Jul-02 |
| Nickel | 1 | µg/L | 1 | 03-Jul-02 |

Report Date: Wednesday, August 28, 2002

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# - CERTIFICATE OF ANALYSIS -

**Prepared For:** DIAND Nunavut District Office

***Attn:*** Constantine Bodykevi

**Sample ID:** 5 Pon-2

**Taiga Sample ID: 221814**

| | | | | |
|---|---|---|---|---|
| Rubidium | 0.8 | μg/L | 0.5 | 03-Jul-02 |
| Selenium | <10 | μg/L | 10 | 03-Jul-02 |
| Silver | <0.3 | μg/L | 0.3 | 03-Jul-02 |
| Strontium | 36 | μg/L | 1 | 03-Jul-02 |
| Thallium | <0.4 | μg/L | 0.4 | 03-Jul-02 |
| Titanium | 17 | μg/L | 3 | 03-Jul-02 |
| Uranium | 0.9 | μg/L | 0.3 | 03-Jul-02 |
| Vanadium | <1 | μg/L | 1 | 03-Jul-02 |
| Zinc | <10 | μg/L | 10 | 03-Jul-02 |

Report Date: Wednesday, August 28, 2002