



## MUNICIPAL WATER USE INSPECTION FORM

<b>DATE:</b>	September 23, 2004	<b>COMPANY REP:</b>	Debbi Raddi/Peter Nogasak
<b>LICENSEE:</b>	Incorporated Hamlet of Tuktoyaktuk	<b>LICENCE #:</b>	N7L3-0714

### WATER SUPPLY – Figures 1-4 attached

Source:	Kudlak Lake	Quantity Used:	Refer to Annual Reports
Owner/Operator:	Incorporated Hamlet of Tuktoyaktuk		

Indicate:	A - Acceptable	U - Unacceptable	N/A - Not Applicable	N/I - Not Inspected			
Intake Facilities:	A	Storage Structures:	A	Treatment Systems:	A	Chem. Storage:	A
Flow Meas. Device:	A	Conveyance Lines:	A	Pumping Stations:	U <sup>2</sup>	Modifications:	A

### Concerns:

- Small fuel spill at water treatment plant (figure 1). Fuel tank and distribution/conveyance lines badly corroded (figure 1,2). This was addressed in the 2003 Inspection Report.
- Fuel spill 04-572 Pumping Station at Kudlak Lake pumping station (Figure 3). Clean up efforts are currently in progress (figure 4).

### Notes:

- Water Treatment Plant and reservoir was secure during inspection.

### WASTE DISPOSAL – Figures 5-15 attached

Sewage	Sewage Treatment System (primary, secondary, or tertiary):	Primary					
	Natural Water Body:	✓	Continuous Discharge (land or water):				
	Seasonal Discharge:	✓ Fall decant	Wetlands Treatment:			Trench:	

Solid Waste	Owner/Operator:	Incorporated Hamlet of Tuktoyaktuk					
	Landfill:	✓	Burn & Landfill:			Other:	

Indicate:	A - Acceptable	U - Unacceptable	N/A - Not Applicable	N/I - Not Inspected			
Discharge Quality:	U <sup>1</sup>	Construction:	N/A	Disch. Meas. Dev.	A	Freeboard:	A
Decant Structures:	A	O&M Plan:	U <sup>4</sup>	Dams, Dykes:	A	Seepages:	A
Dyke Inspections:	A	A&R Plan:	N/A	Erosion:	A	Spills:	See Water Supply

Periods of Discharge:	-Sewage Lagoon was decanted in October. -Solid Waste Disposal Facility (SWDF) has not been decanted. Last decant occurred in October 2003.	Effluent Discharge Rate:	Equal to pump rate
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### Concerns:

- Discharge of the Sewage Lagoon (figures 6-8) was requested on September 22, 2004. As last year, approval of the discharge at that time was rejected due to high pH levels (above pH 9). As per our letter dated October 05, 2004 fall emergency decant was authorized to maintain structural integrity of the containment berm (figure 6,7) and thus Sewage Lagoon (Part D5, D6). All other parameters were sampled on time and met license effluent quality standards. In the future, industrial discharges to this lagoon will be discouraged until the Hamlet can meet their Water License Discharge criteria. As a note the Hamlet was diligent and made every effort, through sampling and delaying discharge, to meet discharge criteria.
- As indicated last year the SWDF waste oil and hazardous materials area (Figure 12, 13) are becoming permanent storage areas. It is recommended that every effort be made to dispose of these materials at a certified disposal facility. Long term/permanent storage of this material is not recommended. It is only a matter of time before spills occur. It is understood that there is a plan to dispose of this material (waste oil) at Grubens
- No signs seen for waste segregation at SWDF. Signs should be posted for various areas including but not limited to: domestic garbage, tires, appliances, wood, bulky metals, and hazardous wastes (oils, paints, lead-acid batteries) if accepted.
- O&M plan deemed incomplete by the NWT Water Board. September 2000 Drafts as prepared by UMA engineering have been received at this office. Please ensure that these documents are updated to reflect the current conditions of the Waste Disposal Facilities.

### Notes:

- Lagoon green color indicating aerobic conditions (figure 8).
- No leaks found at sewage Lagoon and SWDF containment berm (figure 6, 7 and 14, 15 respectively).
- In general considerable work has been done at the SWDF including the old bulk metal waste storage area. This material was crushed and buried. The hamlet is looking for a new bulk metals waste disposal area.
- Currently understood that the landfill does not accept hazardous wastes (used oil, batteries, etc). Currently used oil is disposed of at Grubens and is incinerated. Public does not drop off used oil at this facility.

**FUEL STORAGE** – Figures 1-4 attached

Owner:	Hamlet	Operator:	Hamlet	Condition of tanks:	Poor (Figure 1)
Berms & Liners	Not bermed	Water within Berm:	N/A	Evidence of Leaks:	Yes (Figure 1, 4)
Drainage Pipes:	N/A	Pump Station and Catchment Berm:	N/A		
Pipeline Condition:	N/A	Not Applicable:			

Concerns:

1. See concern 1 & 2 under water supply.

**SURVEILLANCE NETWORK PROGRAM** – Figures 5-8,9,15 attached

Samples Collected (Hamlet)	-Hamlet collected various samples prior to decanting the Sewage Lagoon in 2004. -Hamlet collected a sample at the SNP 0714-3. Discharge had yet been conducted.		
(DIAND)	-Samples taken at SNP station 0714-1, 2, 3. -Sample taken of ocean water at North East most end of town (boat launch). -Ten part composite sample was taken at the SWDF pond along the north west containment berm (figure 14). -All results pending. -2003 sample results (attached to this inspection report) are summarized below: <ul style="list-style-type: none"> <li>• SNP 0714-1 – No concerns noted.</li> <li>• SNP 0714-2 – <b>High pH (9.75) above permit limits for discharge</b>, as per CCME guidelines there is concern of ammonia toxicity to receiving environments at high pH levels.</li> <li>• SNP 0714-3 – Elevated parameters likely caused by ocean influence. No concerns.</li> </ul>		
Signs Posted: SNP	-Yes SNP 0714-2 & 3 posted (figures 5, 9). Please see concern 1 below.	Warning	No warnings seen
Records & Reporting:	-The 2003 Annual report not completed. Hamlet was reminded that the Annual Report was Due March 31, 2004. Please ensure that all abandonment and restoration work, as done at the SWDF, is summarized. -Condition Assessment Report of Tuktoyaktuk Sewage Lagoon submitted August 11, 2004. -Tuktoyaktuk Landfill Condition Assessment Report submitted July 14, 2004. -Understanding that IEG is currently working on the “assessment of the effects of sewage discharge on the waters of Kugmallit Bay”.		
Geotechnical Inspection	Submitted – See UMA Condition Assessment reports dated September 2000.		

Concerns:

1. SNP 0714-2 & 3 signs (figures 5 & 9 respectively) posted but should be relocated. Please place SNP 0714-2 & 3 where water samples are taken at locations identified in figures 7 & 15 respectively.

Notes:

- As a reminder please note that any discharge from the SWDF lagoon must occur between September 15 and October 31 (Part D13). Also see conditions for discharge (Part D14-D19).

<b>Non-Compliance / Violations of Act of Licence:</b>	<ol style="list-style-type: none"> <li>1. Part B, section 1. 2003 Annual Report not submitted.</li> <li>2. Part D, section 9. The “terms of reference for an assessment of the effects of sewage discharge on the waters of Kugmallit Bay” not submitted.</li> <li>3. Part D, section 10. Report as per D9 not completed and was due December 1, 2003.</li> <li>4.</li> </ol>
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General / Additional Inspection Comments:

- **\*\*\*Hamlet was reminded by letter on May 5, in the 2001-2003 inspection reports and during this inspection that the Hamlets Water Licence Expires April 29, 2005. Recommended Submission of renewal document was August 31, 2004.\*\*\***
- A copy of the Water Licence was produced.

Additional Comments Attached:	Yes	No	X
Figures Attached:	Yes	X	No

<b>Inspectors Name</b> Kevin R. Glowa Water Resource Officer	<b>Inspectors Signature</b>
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## LIST OF FIGURES FOR WATER LICENCE INSPECTION REPORT

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**Figure 1. Water Supply.** Fuel storage at water treatment plant.



**Figure 2. Water Supply.** Fuel storage at water treatment plant and chlorination system.



**Figure 3. Water Supply.** Water intake pumping station at Kudlak Lake



**Figure 4. Water Supply.** Sea Can Fuel Storage Container at Figure 3 and spill 04-572 clean up efforts.



**Figure 5. Waste Disposal.** Sewage Lagoon entrance and SNP 0714 sign.



**Figure 6. Waste Disposal.** Sewage Lagoon (south west end) containment berm.



**Figure 7. Waste Disposal.** Proper location for SNP 0714-2 sign.



**Figure 8. Waste Disposal.** Sewage Lagoon SNP 0714-2 sampling area.





**Figure 9. Waste Disposal.** SWDF entrance and SNP 0714-3 SNP sign.



**Figure 10. Waste Disposal.** SWDF domestic garbage disposal area.



**Figure 11. Waste Disposal.** SWDF north west view with old bulk metal waste storage facility in the background.



**Figure 12. Waste Disposal.** SWDF waste oil and hazardous wastes area.



**Figure 13. Waste Disposal.** SWDF waste oil and hazardous wastes disposal area.



**Figure 14. Waste Disposal.** SWDF north west containment berm.



**Figure 15. Waste Disposal.** SWDF north west containment berm and proper location for SNP 0714-3 sign.

