



AANDC  
Nunavut District Office  
Box 100  
Building 918  
Iqaluit, NU, X0A 0H0

Submitted Via E-Mail

Our File: 3BC-ERK1015

Your File: \_\_\_\_\_

November 23, 2012

Colonel RK.G Horgan  
Director A4 Construction Engineering &  
Scott Edwards, Environment Manager  
Department of National Defence  
1 Canadian Air Division  
A4 Construction Engineering  
PO Box 17000 Stn Forces Winnipeg, MB R3J 3Y5

**RE: Water Licence Inspection July 15, 2012**

On the 15<sup>th</sup> of July 2012 a compliance inspection was carried out on the Canadian Forces Station, Ft. Eureka known commonly as the Ft. Eureka and facilities, located at Latitude 80°00'N and longitude 85°56'W on Ellesmere Island in the Qikiqtani Region of the Nunavut Territory.

The following is a report on observations made at that time. Included at the end of the report is a record of observations made during the inspection with respect to issues of non-compliance or non-conformity with the issued Water License or the Nunavut Water and Nunavut Surface Rights Tribunals Act.

The role of Aboriginal Affairs and Northern Development Canada (AANDC) in issues related to the use of water or deposit of waste in Nunavut is one of compliance monitoring and enforcement. Our preferred option is to work with clients by identifying instances of non-compliance, risks to the environment and/ or people, bringing them to the licensee's attention and ensuring the operator is able to address these issues to ensure compliance with the authorizations and the Act.

Should you require more information or clarification please contact the undersigned at the coordinates listed below.

I look forward to working with you and your staff. If you have any questions please do not hesitate to contact our offices here in Iqaluit.

Sincerely,

*(Sent by E-mail)*

Andrew Keim  
Water Resources Officer  
Aboriginal Affairs and Northern Development Canada  
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## Inspection Report

**License #: 3BC-ERK1015**

**Inspector: A.Keim**

**CIDMS #**

Client	Department of National Defence		
Mailing Address	Colonel RK.G Horgan Director A4 Construction Engineering & Scott Edwards, Environment Manager Department of National Defence 1 Canadian Air Division A4 Construction Engineering PO Box 17000 Stn Forces Winnipeg, MB R3J 3Y5		
Inspection site location	Canadian Forces Station : Ft. Eureka		
Contact name	Don Kovanan	Title	Wing Environmental Assistant
Last inspection date	July 31, 2007 (prior to licensing)	July 6, 2009 (prior to licensing)	July 19 <sup>th</sup> , 2011
Inspection start date	July 15, 2012		
Region	Qikiqtani		



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The Inspector thanks Mr. Don Kovanen for his assistance and time during the inspection.

At the time of the Inspection a water license had been issued for the site and is scheduled to expire on June 30<sup>th</sup>, 2015.

**As relates to the use of water at the site;**

Raw water samples from the reservoir were collected during the Inspection. Sample parameters returning values in excess of guideline or license criteria are as follows;

<u>Parameter</u>	<u>Location</u>	<u>Sample Result</u>	<u>Guideline</u>
Iron	Potable	1860 µg/L	300 µg/L <sup>1</sup>
Aluminum	Potable	709 µg/L	100 µg/L

<sup>1</sup> Canadian Council of Ministers of the Environment Guideline for Community Drinking Water

Raw water is collected by pump from Station Creek by Environment Canada. This water is then treated and trucked to the Ft. Eureka site by Canadian Forces personnel. Inspection of the reservoir noted a high silt load within the water column. This was documented during sampling. Water from Station creek is surface runoff and melt-water from spring freshet. Water from the reservoir is run through a system of filters, a UV system and water softeners prior to transport and use within the facility. All equipment was found in good order and in operation during the period of Inspection.

The Sewage lagoon is located immediately behind the facility and adjacent to the airport apron and taxi way. During the period of inspection the volume of effluent noted within the facility was near to over topping the walls of the constructed lagoon. This practice is not encouraged as the facility constructed is unlined and not properly compacted. A minimum of 1 meter of free board is recommended by the inspector.



As both cells of the Sewage Treatment Facility were near capacity, the Inspector provided direction to Canadian Forces personnel on site to begin the process to decant the lagoon, to conduct the required sampling, and to provide evidence of same upon completion to the inspector. This is to be completed prior to the closure of the facility for the 2012 season.

A roadway/ pathway appear to have been constructed behind the facility to facilitate on-going earthworks in relation to the sewage disposal facilities. Rutting damage to the tundra was evident during the inspection. The Licensee was directed to take steps to remedy and mitigate this damage next season before the thermal karsting of the damaged active layer extends beyond the immediately affected area.

It is also noted that an activated sludge treatment facility that is not in use at the facility.

**As relates to solid waste management on site the Inspector noted the following;**

- Land filling of barrels along the airport continues with 2000 barrels awaiting disposal on site. The Inspector noted standing water on site that returned a positive value for Hexane Extractable Materials (oil & Grease). It is noted that the value returned (6 mg/L) does not exceed license criteria however the presence of these contaminants may require the licensee to address best practices to prevent contamination of surrounding lands.
- Adjacent to this area a Containment structure with hydrocarbon contaminated soils was noted.
- Solid waste is required to be disposed of at the Solid Waste Disposal Facility located within a small valley on the southeast side of the runway, and approximately 1.4 km from Slidre Fiord. As noted during the inspection the facility was recently covered over and appeared well maintained.
- Hazardous wastes were noted as packaged and labelled for off-site treatment during the period of inspection.

**As relates to the Fuel Storage/ Transfer location and contaminated soils adjacent to the runway;**

- A new containment facilities had been transported to site and erected/located adjacent to the above ground tanks.
- New secondary containment for barreled fuel had been installed.
- Remedial work on the site behind the above ground tanks where the two bladders sat is not yet completed. This work was to have been completed by this field season. The licensee was directed to have these soils contained and either transferred to a lined area for treatment (which may require an amendment to the current license) or removed from site by the period of the next inspection. A number of options were discussed on site at the time of the inspection. It is incumbent on National Defence to undertake this work before the next inspection.

The Inspector noted the following deficiencies or instances of non-compliance with either the current water license or the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

**Non-Compliance:** Issues identified during the inspection and/or review of relevant material

**Issues where there is a known or suspected violation of a requirement of the Water License;**

- Decanting and sampling under the monitoring program is to be undertaken at the lagoon.
- Contaminated soils remain unaddressed. This is to be undertaken by the period of the next inspection.

**The site has seen a number of improvements over the period since the last inspection. The Department of National Defence should be commended for undertaking the works necessary to bring themselves into compliance with the issued authorizations.**



**A. Keim**  
**Inspector's Name**

**(Sent by E-mail- Original on file)**  
**Inspector's Signature**

Attached under separate cover;  
Photos taken during Inspection of July 15, 2012

Cc:  
Phyllis Beaulieu – Manager licensing – Nunavut Water Board

Contact Information:

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