



## **ANNUAL REPORT 2007**

**Submitted to:**

**Nunavut Water Board**

**For**

**Licence:      NWB6FOD0409 - Type "B"**  
**FOX-3, Dewar Lakes, NU**

**Submitted by: Nasittuq Corporation**

**31 March 2008**

This annual report is submitted to the Nunavut Water Board (NWB) as stipulated in Para. 1, Part B, General Conditions of the following licence:

Licence: NWB6FOD0409 Type “B”

## **NUNAVUT WATER LICENCE: NWB6FOD0409 Type “B”**

### **North Warning System Long Range Radar – FOX-3, Dewar Lakes, Nunavut**

The annual operation and maintenance (O&M) activities at Dewar Lakes during the reporting period included the quarterly preventive/corrective maintenance, in-house regulatory compliance audits and inspections, routine infrastructure maintenance in preparation for the summer RAMP-UP activities, and fuel resupply. Specific projects implemented were Radar Tower Painting and Rehabilitation, Installation of RF/IF Equipment and Installation of VHF Air-Ground Radio Equipment by NAVCAN.

#### **Water Use**

The site reverted to the annual transitory manned status in early May and ramped down in late October, totaling 177 days of continuous site occupancy. The calculated total water usage for the site is 318.6 cubic meters. This is based on 150 litres per person per day, with an average daily occupancy rate of 12 persons. This gives an average daily usage of 1.8 cubic meters, below the 10 cubic meters daily allowed by the license. Note that a water meter has since been installed at the site, and for the 2009 report, we will be able to report actual usage.

#### **Hazardous Waste Disposal**

The waste management was consistent with the Nasittuq Environmental Protection Plan, meeting the terms and conditions stipulated in the NWB water licence.

The following items were retrograded to Quebec for disposal in 2007.

Disposal facility: Recyclex, 8381, Place Marien, Montreal-EST Quebec. H1B 5W6

#### **Summary of Waste Retrograde in 2007**

FOX-3	Glycol	5 drums
FOX-3	Waste Fuel	1 drum
FOX-3	Waste fuel mixture	17 drums
FOX-3	Waste Varsol	1 drum
FOX-3	Waste fuel filters	1 drum
FOX-3	Waste paint	1 drum
FOX-3	Waste batteries, wet, lead acid	1 crate
FOX-3	Waste batteries, non-spill	1 crate
FOX-3	Refrigerant gas R22	3 cylinders
FOX-3	Oil	8 drums

### **Non Hazardous Solid Waste Disposal**

All domestic solid waste was disposed of by burning in a burn bin and buried at a designated on-site landfill. The DIAND inspector made reference to this practice in his report dated 03 December 2007, specifically that the waste was to be incinerated, as opposed to being burned. We are requesting clarification on this issue, as we consider removing this type of waste back to Hall Beach impractical, and we believe the current practice to be an acceptable method for the disposal of this kind of waste.

Refer to Annex A for designated landfill location, with GPS coordinates at FOX-3.

### **Sewage Discharge**

Refer to Annex B for sewage outfall location, with GPS coordinates at FOX-3. The DIAND inspector made reference to concerns with regard to the current configuration of the sewage system, specifically the lack of a lagoon or sump. However, we maintain that we using the system "... as described in the water license amendment application filed on August 6, 2004.", which did not include a sump or lagoon. We seek clarification on this issue.

### **Monitoring Program**

Refer to Annex C for sewage analysis for FOX-3.

### **Product Spills**

Two spills occurred at FOX-3 during this reporting period. These are summarized in the following table.

<b>Date</b>	<b>Product</b>	<b>Quantity</b>	<b>Cause</b>	<b>Locality</b>
3 Jul 2007	Aviation fuel, (Jet A-1)	Approx. 54 litres (calculated)	Damaged flex line	Summit
12 Feb 2007	Antifreeze	0.1 litre	Leaking DEG radiator	Summit
3 Feb 2007	Aviation Fuel, (Jet A-1)	Approx. 20 litres (calculated)	Found in drip pan at the helicopter refueling point	Helipad
10 Sept 2007	Aviation fuel, (Jet A-1)	Approx. 20 litres (calculated)	Human error during flex line repair	Summit

### **Revisions to the ERP**

No revisions have been effected during this reporting period.

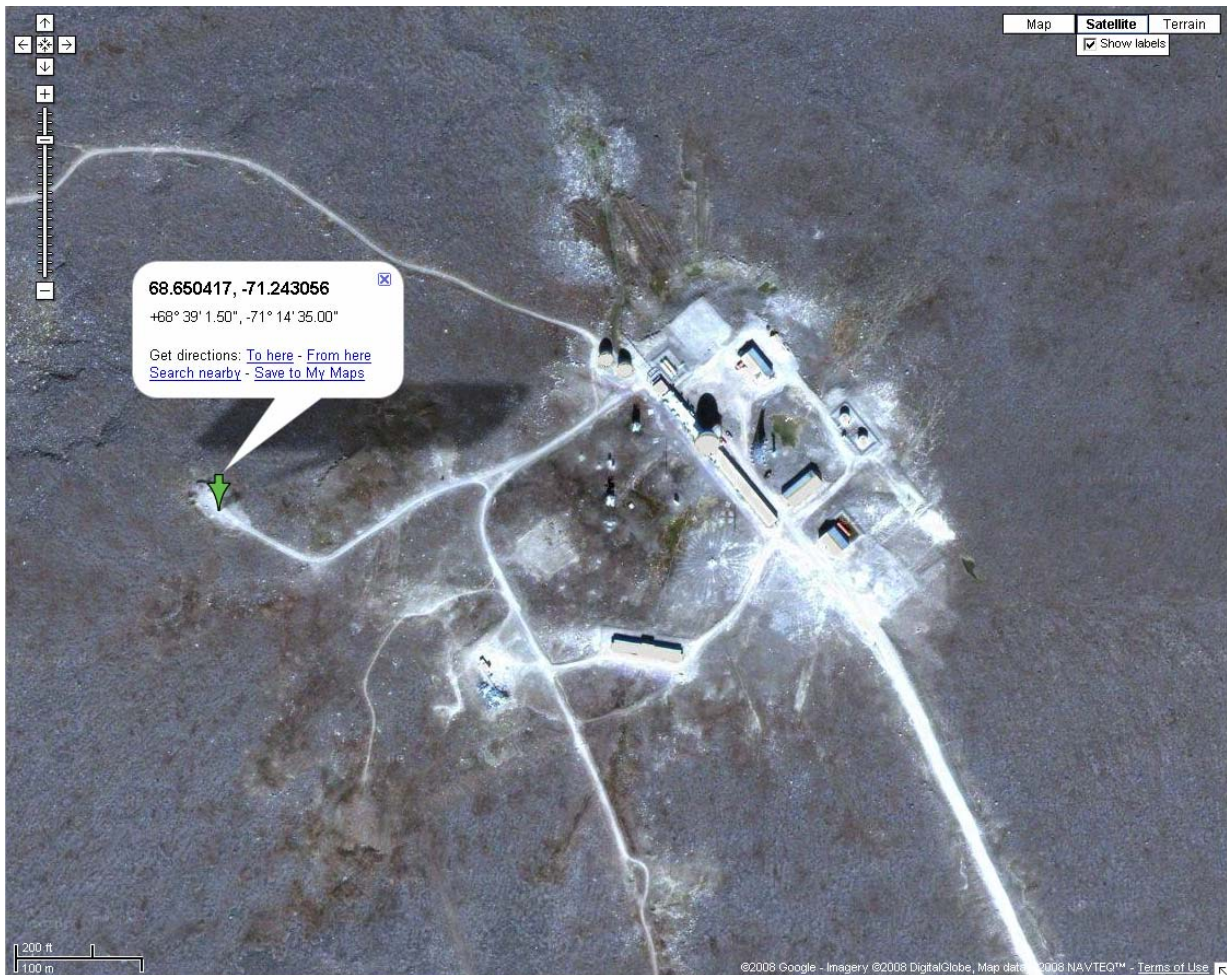
**Progressive reclamation work undertaken**

Significant reclamation work is planned for this site in the near future. However, this work will be implemented by Defence Construction Canada (DCC) as part of the larger DEW Line Clean-Up (DLCU) project. As such, this work was not under the care custody or control of Nasittuq Corporation.

## **Annex A**

Designated landfill location, with GPS coordinates at FOX-3.

## FOX-3



## **Annex B**

Sewage discharge location at FOX-3



## FOX-3



## **Annex C**

Sewage analysis for FOX-3.



**Client: Nasittuq Corp.**  
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Ottawa, ON  
K1P 5V5

**Report Number:** 2804631

**Date:** 2008-03-06

**Date Submitted:** 2008-03-04

**Attention: Mr. Sam Chang**

**Project:**

**P.O. Number:** 2006112

**Chain of Custody Number:**  
**26141**

**Matrix:** Wastewater

			<b>LAB ID:</b>	608720					<b>GUIDELINE</b>		
			<b>Sample Date:</b>	2008-02-20							
			<b>Sample ID:</b>	FOX-3							
PARAMETER	UNITS	MRL							TYPE	LIMIT	UNITS
Conductivity	uS/cm	5	2520								
N-NH3 (Ammonia)	mg/L	2.0	197								
pH			7.18								
Phenols	mg/L	0.001	0.213								
Sulphate	mg/L	1	7								
Total Suspended Solids	mg/L	2	6280								
Calcium	mg/L	1	98								
Magnesium	mg/L	1	16								
Potassium	mg/L	1	58								
Sodium	mg/L	2	209								
Arsenic	mg/L	0.05	<0.05								
Cadmium	mg/L	0.01	0.05								
Chromium	mg/L	0.02	0.24								
Copper	mg/L	0.01	409								
Iron	mg/L	0.1	63.6								
Lead	mg/L	0.01	5.20								
Mercury	mg/L	0.001	<0.001								
Nickel	mg/L	0.01	0.34								
Zinc	mg/L	0.05	11.8								

MRL = Method Reporting Limit INC = Incomplete AO = Aesthetic Objective OG = Operational Guideline MAC = Maximum Allowable Concentration IMAC = Interim Maximum Allowable Concentration

**Comment:**  
608720: N-NO2+N-NO3, BOD and Oil and Grease were submitted past their holding times and are not available. Pb MRL elevated due to matrix interference.

**APPRO VAL:** Lorna Wilson  
Agriculture Lab Supervisor