



## **ANNUAL REPORT 2007**

**Submitted to:**

**Nunavut Water Board**

**For**

**Licence:      NWB6DYE0409 - Type "B"**  
**DYE-M, Cape Dyer, 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: NWB6DYE0409 Type "B"

## **NUNAVUT WATER LICENCE: NWB6DYE0409 Type “B”**

### **North Warning System Long Range Radar – DYE-M, Cape Dyer, Nunavut**

The annual operation and maintenance (O&M) activities at Cape Dyer 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 summer projects were Edwards Fire Alarm Panel Replacement, Water Tank Replacement, B-Train Accommodation Upgrade and DLCU Construction.

#### **Water Use**

The site reverted to the annual transitory manned status in early May and ramped down in late October, totaling 178 days of continuous site occupancy. The calculated total water usage for the site is 320.4 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**

DYE-M	Glycol	1 drum
DYE-M	Waste Fuel	1 drum
DYE-M	Waste fuel mixture	1 drum
DYE-M	Waste oil filters	1 drum
DYE-M	Waste fuel filters	1 drum
DYE-M	Waste paint	1 drum
DYE-M	Waste batteries, wet, lead acid	3 crates
DYE-M	Waste batteries, non-spill	1 crate
DYE-M	Waste Oil	1 crate 25 x 5 gal pails
DYE-M	Waste Oil	17 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.

Refer to Annex A for designated landfill location, with GPS coordinates at DYE-M.

### **Sewage Discharge**

Refer to Annex B for sewage outfall location, with GPS coordinates at DYE-M.

### **Monitoring Program**

Refer to Annex C for sewage analysis for DYE-M.

### **Product Spills**

Two spills occurred during this reporting period.

Date	Product	Quantity	Cause	Locality
02 Jun 2007	Jet A-1	Residue	Cracked flange on empty tank	DYE-M Airstrip
26 July 2007	Jet A-1	3 litres	Bung on a Drum was loose	DYE-M near Burn bin

### **Revisions to the ERP**

No revisions have been effected during this reporting period.

### **Progressive reclamation work undertaken**

There was a significant reclamation effort at DYE-MAIN in 2007. However, this work was 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 DYE-M.

## DYE-M





## **Annex B**

Sewage outfall location, with GPS coordinates at DYE-M



## DYE-M







## **Annex C**

Sewage analysis for DYE-M.



**Client: Nasittuq Corp. (Ottawa)**  
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K1P 5V5

**Attention: Mr. Sam Chang**

**Report Number:** 2803213

**Date:** 2008-02-25

**Date Submitted:** 2008-02-13

**Project:**

**P.O. Number:**

**Chain of Custody Number:** 72169

**Matrix:** Sewage

			LAB ID:	604480	604481					GUIDELINE		
			Sample Date:	2008-01-25	2008-01-25							
			Sample ID:	DYE-M	BAF-3							
PARAMETER	UNITS	MRL								TYPE	LIMIT	UNITS
Biochemical Oxygen Demand	mg/L	1	647	3860								
Conductivity	uS/cm	5	1130	523								
N-NH3 (Ammonia)	mg/L	2.0	94.4	19.8								
NO2 + NO3 as N	mg/L	0.10	<0.10	<0.10								
pH			6.61	5.32								
Phenols	mg/L	0.001	0.385	0.038								
Sulphate	mg/L	1	1	11								
Total Suspended Solids	mg/L	2	466	876								
Calcium	mg/L	1	32	8								
Magnesium	mg/L	1	5	2								
Potassium	mg/L	1	23	50								
Sodium	mg/L	2	64	43								
Arsenic	mg/L	0.05	0.06	<0.05								
Cadmium	mg/L	0.01	<0.01	<0.01								
Chromium	mg/L	0.02	0.06	<0.02								
Copper	mg/L	0.01	1.86	1.92								
Iron	mg/L	0.1	4.4	2.3								
Lead	mg/L	0.01	0.08	0.02								
Mercury	mg/L	0.05	<0.05	<0.05								
Nickel	mg/L	0.01	0.08	0.02								
Zinc	mg/L	0.05	0.56	0.88								

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

Comment: Metals analysis performed on aqua-regia digest of sample material.

APPROVAL: Lorna Wilson  
Agriculture Lab  
Supervisor