March 10, 2005 Project No.: PIN-3 (3.6)

VIA E-MAIL (LICENSING@NWB.NUNAVUT.CA)

Phyllis Beaulieu
Licensing Manager
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Ms. Beaulieu:

RE: 2004 Annual Report - Water Use License NWB5FRA0209

UMA Engineering Ltd. is submitting the following annual report as per the requirements of Section B.1 of the above-noted water use license. The report is being submitted on behalf of Defence Construction Canada and the Department of National Defence.

The following table provides a summary of the water extracted from the Water Supply Lake and the effluent discharged to the sewage lagoon.

Table 1: Water Usage at PIN-3 in the 2004 Construction Season

Month	Quantity of Water Obtained (cubic metres)	Quantity of Sewage Effluent Discharged (cubic metres)
July	621	195
August	1667	198
September	160	55
TOTAL	**2448**	**448**

A sewage lagoon was constructed late in August 2002, to support the construction camp as per the specifications included in the water use licence application. Due to the coarse-grained nature of the material available at the PIN-3 site, the sewage lagoon did not retain the discharged effluent. All effluent discharged into the lagoon infiltrated the ground. No samples of the sewage effluent were collected because insufficient effluent quantities were available to obtain a sample for analysis.

Two water samples were collected during the 2004 construction season in areas where dewatering was required during excavation of debris and/or contaminated soil. The results of

the samples show there were no chemicals in the water above the target criteria and the water was therefore suitable for overland discharge. Table 2 provides a summary of the sample locations and Table 3 provides the water sample results.

Table 2: Water Sample Location Coordinates

Sample Location	Sample Number	GPS Coordinates (UTM)	
		Northing	Easting
Main Landfill – Key Trench Excavation	04-14989	7597733	12407878
Main Landfill – Barrel Burn Bin Area	04-15036	7597736	12408001

Table 3: Water Sample Results

Parameter	Units	Target Criteria	Sample Identification	
			04-12989	04-15036
pH	pH units	6.0-9.0	8.11	
Oil & Grease	-	No visible sheen	No visible sheen	No visible sheen
Total Arsenic	mg/L	0.1	<0.003	<0.003
Dissolved Cadmium	mg/L	0.01	<0.001	<0.001
Total Chromium	mg/L	0.1	<0.005	<0.005
Dissolved Cobalt	mg/L	0.05	<0.003	<0.003
Dissolved Copper	mg/L	0.2	0.005	<0.005
Dissolved Lead	mg/L	0.05	<0.01	<0.01
Total Mercury	µg/L	0.6	<0.4	<0.4
Dissolved Nickel	mg/L	0.2	0.009	<0.005
Total Zinc	mg/L	1.0	<0.01	0.161
PCBs	µg/L	50[1] 5[2]	<3.0	<3.0
Phenols	µg/L	20	<1.0	<1.0

[1] wastewater discharged to barren land
[2] wastewater discharged to vegetated land

The following is a summary of work completed in 2004 at the PIN-3 site. Several site photos are attached for reference.

- All remaining site debris was placed in the NHW Landfill.
- All barrels on-site were disposed of as per the Barrel Disposal Protocol outlined in the Project Description. The empty barrels were shredded and placed in the NHW Landfill.
- The NHW Landfill was closed. The closure included placement of granular cover and compaction.
- The Main Landfill remediation was completed, which included the installation of a leachate containment system.
- The sewage lagoon area was backfilled and regraded.
- The landfarm was tilled and soil samples were collected to determine the remediation status of the hydrocarbon-contaminated soils.
- The contractor demobilized most of the camp and equipment. Some equipment was left on-site to complete the final tilling event at the landfarm.

There were PCB Amended Painted (PAP) materials and other hazardous materials packaged and stored for later removal from the site to a licensed disposal facility. The contract to remove these materials will be a separate contract from the current clean up contract. The following materials are currently stored in the PCB Storage Area and Hazardous Materials Storage Area, respectively.

- 7 containers of PAP materials;
- 12 containers of soils contaminated with PCBs above CEPA regulations;
- 1 PCB capacitor in an overpack barrel;
- 51 containers of soils contaminated with hazardous levels of chemicals; and
- 3 plastic drums containing neutralized acid.

The remaining work to be completed in 2005 includes the final tilling event and closure of the landfarm, as well as demobilization of the remaining camp equipment. The materials in the PCB Storage Area and Hazardous Materials Storage Area will also be removed by separate contract in 2005.

There were no spill incidences reported at the PIN-3 site in 2004.

A community meeting was held in Kugluktuk on July 21, 2004 with DCC and the site contractor. Notes of the meeting were not recorded; however, indications are that the meeting was well received and no major concerns were identified.

An overall site plan is included to show the locations of the various work areas described in this report.

We trust the information provided is consistent with the requirements of Water Use Licence #NWB5FRA0209. Please feel free to contact the undersigned if you have any questions or comments.

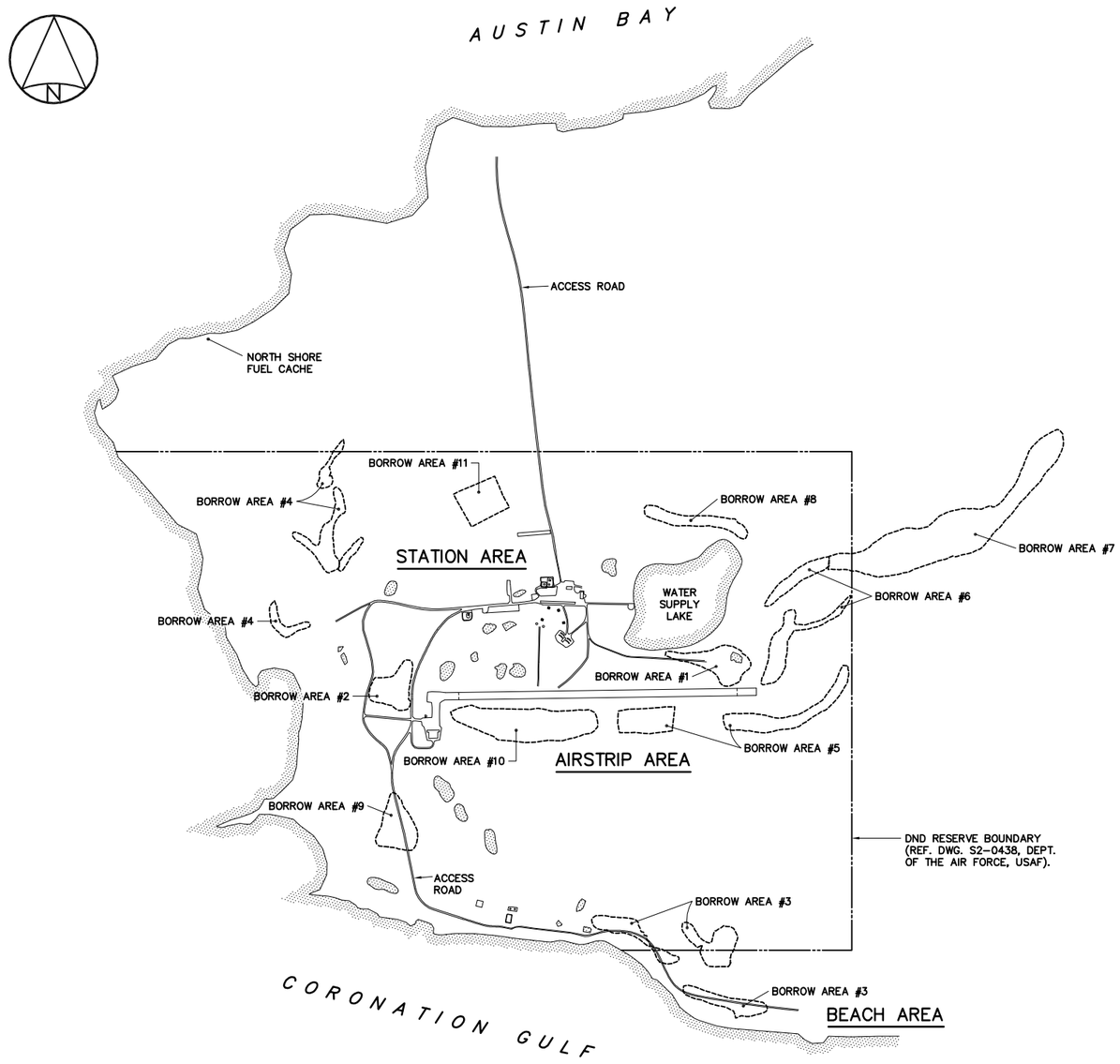
Sincerely,

UMA ENGINEERING LTD.

Eva Schulz, P.Ag.
Environmental Scientist
eschulz@umagroup.com

Encl. Overall Site Plan
Photos

cc: Phil Warren, DCC
Jim Wall, NWB



National Défense
Defence nationale

Headquarters
Quartier général

General Notes:

Legend:

BODY OF WATER

No.	DATE	REVISION	REVISION	APPR.

UMA STE

SCALE – ECHELLE 200 100 0 200 400 600m

PROJECT – PROJET
PIN–3 LADY FRANKLIN POINT

DEW LINE CLEAN UP

TRADE – METIER	DATE
SITING	2002–02–25

SUBJECT – SUJET

OVERALL SITE PLAN

PRODUCTION		CONCURRENCE – ASSENTIMENT	
DESIGNED ETUDIE	BWF		DES OFF AGENT CONCEPT
DRAWN DESSINE	CAE/IC		SECT HD CHEF SECT
CHECKED VERIFIE	RRM		DES MGR GEST CONCEPT
COORDINATION	SMS	REVIEWED – REVU	

DWG. NO. – DESSIN NO.
H–L13/1–9101–101

Canada

PHOTOGRAPHIC RECORDS

Photo 1: Graded South Landfill area.

Photo 2: Main Landfill, looking south.

Photo 3: Non-Hazardous Waste Landfill

Photo 4: Tier II Soil Disposal Facility

Photo 5: Reclaimed sewage lagoon.

Photo 6: PCB Storage Area