September 20, 2004 File: CAM-5 (3.6)

VIA FACSIMILE 867-360-6369

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

Dear Ms. Beaulieu:

Re: Summary Report as per NWB License No. NWB5MAC0204

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

As part of its commitment to clean up and decommission surplus facilities at the former CAM-4, Mackar Inlet DEW Line site, a detailed site investigation is completed for use in the development of the clean up design. The site investigation activities were concluded and the site clean up is scheduled to commence in 2006. A topographical map segment showing the Mackar Inlet site and a site plan are attached.

The existing airstrip was used to access the site and the existing roads were utilized for vehicular traffic on site. A temporary camp was set up by Nunavut Expediting Services at the site to facilitate the site investigation activities. The camp was located on the Airstrip apron, near the hangar. Major equipment used at the site included ATVs, trailers, mini-excavator, satellite phones, radios and laboratory equipment.

An electric deterrent system for wildlife management was used for the duration of the site investigation. It was comprised of a high voltage double wire fence around the perimeter of the camp. Bear monitors from nearby communities were employed during the site investigation.

During the site investigation, soil, water and structural material samples were collected. Inventories were taken of the building and facilities on site. Identification of surface debris was recorded. Geophysical, topographic and location surveys were performed. Potential sources of granular material required for the clean up activities were identified, as were potential locations for site disposal facilities, storage areas, construction camp, etc. required for clean up activities.

Test pits used to collect soil samples or investigate borrow sources were excavated by hand or by a mini-excavator. Monitoring wells for collecting groundwater samples were installed in some of the test pits. Principal areas of investigation included all buildings on-site, the Station area, the Airstrip area, the petroleum, oil and lubricants (POL) storage areas, existing landfills, several borrow areas and numerous areas of surficial debris located adjacent to roads, site facilities and the aforementioned work areas.

Water was obtained from the Water Supply Lake for all domestic use by the camp; there were no industrial uses of water during the site investigation. The water from the lake was pumped into a water tank on an ATV trailer using a portable pump and then transferred to a water tank at the camp.

Upon completion of the site investigation, all equipment was removed from the site. Laboratory wastes were containerized and stored in the Air Terminal Building (ATB) for disposal during the site clean up. Plywood and other heavy/bulky materials were also stored in the ATB for disposal during clean up. All excavated test pits were backfilled. Non-hazardous camp waste was incinerated in a pit and the ash and residue were buried on-site with the sewage. All non-combustible wastes and used fuel barrels were packaged and stored in the ATB. Greywater from the camp was discharged to a pit and backfilled at the end of the site investigation.

During the investigation, no spills of fuels or hazardous material were recorded; however, a land use inspection conducted after the departure of the field team identified the presence of hydrocarbon staining around the camp area. The hydrocarbon impacted areas was added to the remediation design and will be cleaned up with the other contaminated soil areas identified during the investigation.

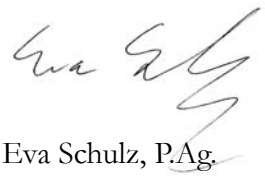
The results of the site investigation showed that overall, contamination is most extensive at the upper site. Soil contaminants at the upper site include inorganic elements (i.e., metals), hydrocarbons and PCBs. The soil contamination at the lower site is much less extensive and consists almost entirely of hydrocarbons. Existing landfills and debris areas were investigated to determine appropriate remediation plans. In addition, proposed landfill and landfarm areas were assessed to determine their suitability for construction. Water samples collected from the existing water supply lake and another lake at the upper site indicated that the water was free of bacteria and contaminants at both sites. Water samples from several waterbodies at the lower site showed that these waterbodies contained detectible coliform counts and would have to be retested and treated prior to use for human consumption. Paint, insulation and concrete samples collected from the building infrastructure showed that PCBs., asbestos and lead were present in some areas and would have to be dealt with accordingly in the clean up plan.

A clean up plan and engineering design is currently being completed, based on the information and data collected during the site investigation. The site is scheduled to start construction/clean up in 2006, with completion anticipated in 2010.

We trust the above information is consistent with the reporting requirements as stated in License No: NWB5MAC0204. If you have any questions or comments, please feel free to contact the undersigned at (403) 270-9200.

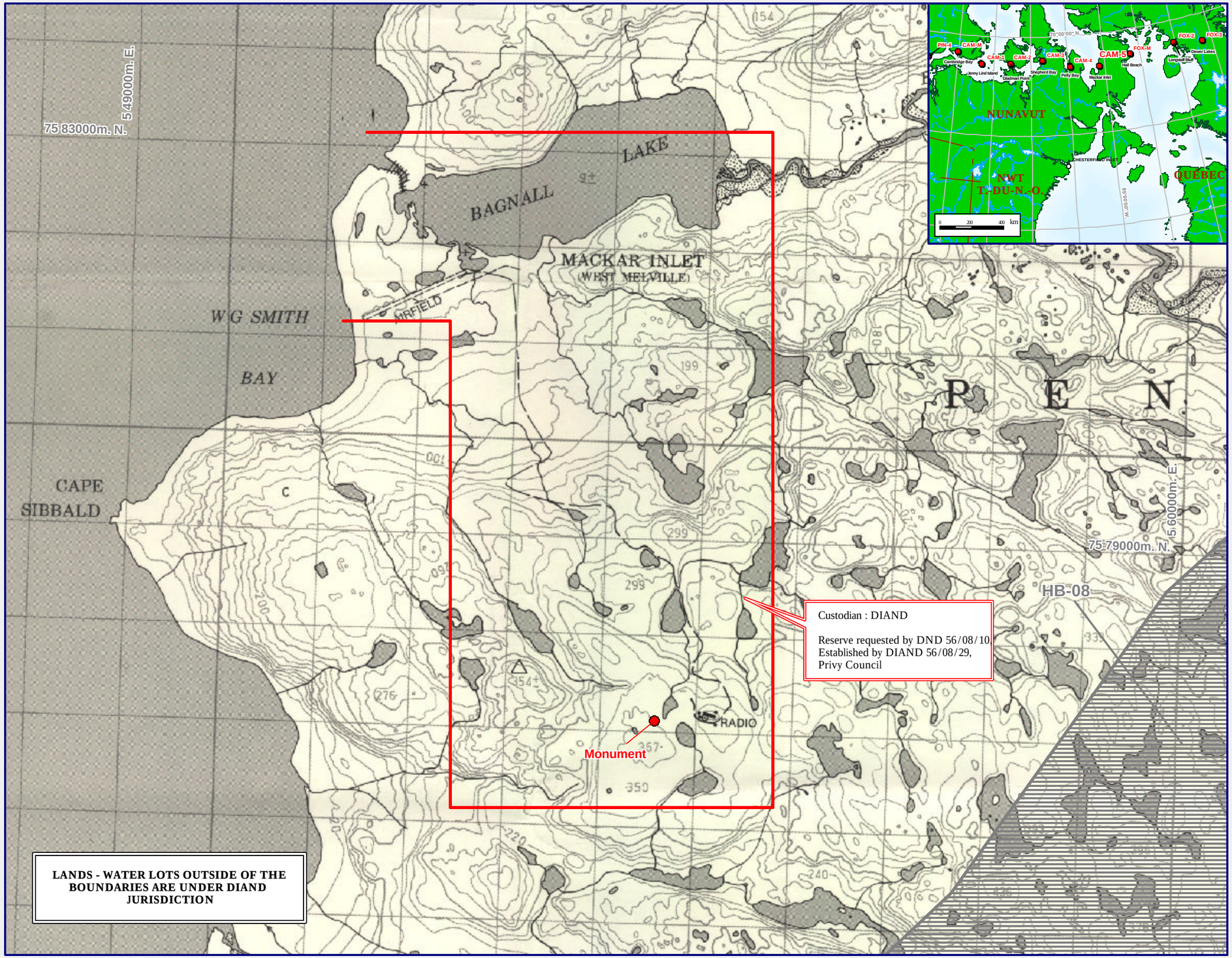
Sincerely,

UMA ENGINEERING LTD.



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

Attachments
- Topographical Map
- Site Plan



Custodian : DIAND

Reserve requested by DND 56/08/10.
Established by DIAND 56/08/29,
Privy Council

Version 2.0

CAM-5

MACKAR INLET

FINAL

Reserved for DND / Réservé pour le MDN

Inuit Owned Lands / Terres en propriété Inuit

The original reserve boundary was created using the USAF metes and bounds description. This description has inherent limitations (as demonstrated where it extends into the water). **The anomalies have been left on the map as the metes and bounds description** was used to originally reserve the land for DND.

Carte de base : carte topographique 47B/7 (Échelle 1 : 50 000). Zone UTM 16.
Publié par la Direction des levés et de la cartographie
Ministère de l'énergie, des mines et des resources, Ottawa, 1975.

Background information : Topographic map 47 B/7 (Scale: 1: 50 000). UTM Zone 16.
Produced by the Surveys and Mapping Branch
Department of Energy, Mines and Resources, Ottawa, 1975.

N W E S

Scale / Échelle : 1 : 40 500

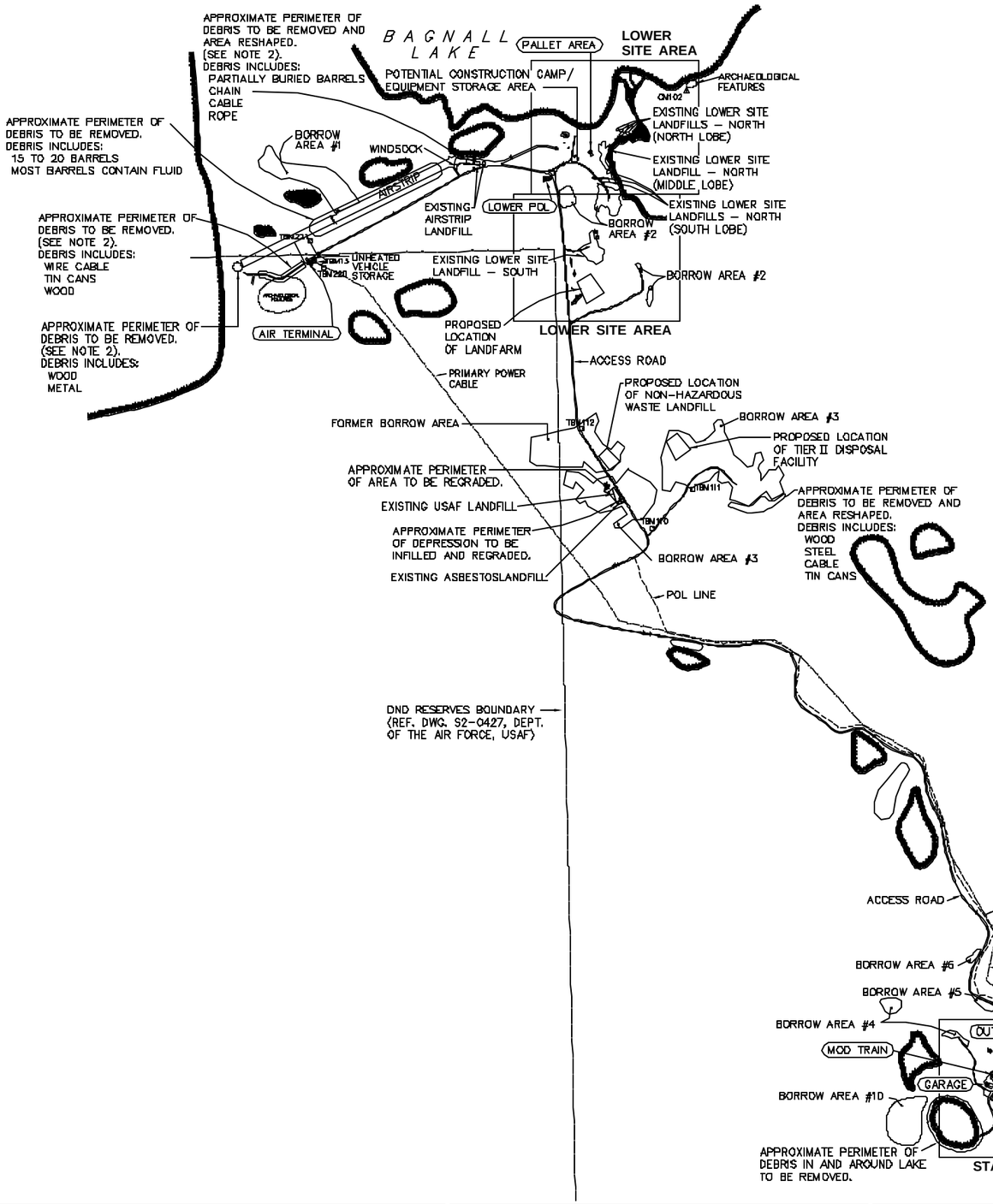
0 1 2 km

This map is to be used for presentation purposes only.
This map is not a legal survey document.

Cette carte devrait être utilisé à des fins de présentation seulement.
Cette carte n'est pas un document d'arpentage légal.

Produced by: Real Property Geomatics Services, Real Property Services Branch, PWGSC, January, 2003.
Produit par: Services géomatiques immobiliers, Service des biens immobiliers, TPSGC, janvier 2003.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada



1. ALL ELEVATIONS ARE REFERENCED TO MEAN SEA LEVEL. (REF. DWG. AAP-1, DEPT. OF THE AIR FORCE, USAF).
2. ALL NON-HAZARDOUS DEBRIS WITHIN PLAN AREA TO BE PLACED IN BORROW AREA #3 LANDFILL.
3. ARCHAEOLOGICAL FEATURES LOCATED AS PER ENVIRONMENTAL CLEAN UP STUDY OF 21 DEW LINE SITES IN CANADA, VOL. 17, UMA 1991.
4. HORIZONTAL CONTROL REFERENCED TO SURVEY CONTROL MONUMENTS.
5. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

LEGEND:

△CM1 SURVEY CONTROL MONUMENT

⊡TBM13 TEMPORARY BENCHMARK

BODY OF WATER

200 0 200 400 600

SCALE (m)

DRAFT

PLOT DRIVER/DEVICE: THRDHPSKN | ACAD PCP FILE: DEWLINE11x17.CTB | LTSCALE: | DISK & ACAD FILE No. EW-502

LAST EDIT/PLOT SESSION: 03-03-24

DWG BASE

COMMENTS

REV	Y	N	D	ISSUE/REVISION DESCRIPTION	DRN	DES	CHK	ENG
0	03	03	24	FOR REPORT	CO	GE	GE	GE

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METRIC

NATIONAL DEFENCE

DEW LINE CLEAN UP
CAM 5 – MACKAR INLET
PROJECT LAYOUT

UMA JOB No.	ACAD FILE No.	FIGURE No.	SS/REV
0171-120-01-03	EW-502	1	0