April 1, 2004 Project No.: FOX-4 (3.6)

VIA E-MAIL

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

Dear Ms. Beaulieu:

RE: Water Use Licence Application for the Re-Packaging of PCB Amended Painted Materials for Transport at the Former FOX-4, Cape Hooper DEW Line Site

UMA Engineering Ltd. is submitting the enclosed water use licence application for the re-packaging of PCB Amended Painted Materials (PAP) currently in storage at the former FOX-4, Cape Hooper DEW Line Site. The materials require re-packaging to comply with Transport Canada guidelines, prior to transport from the site. The application is being submitted on behalf of Defence Construction Canada and the Department of National Defence.

We trust the information provided is sufficient for you to process the application. If you have any questions or comments, please do not hesitate to contact the undersigned at 403-270-9220.

Sincerely,

UMA ENGINEERING LTD.

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

Encl. Water Use Licence Application
Remote Camp Supplementary Questionnaire
Overall Site Plan
Spill Contingency Plan

cc: Jim Wall, NWB
Phil Warren, DCC

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P.O. BOX 119
GJOA HAVEN, NU X0E 1J0
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NUNAVUT IMALIRIYIN

WATER LICENCE
APPLICATION FORM

Application for: (check one)

New ___ Amendment __✓_Renewal ___Assignment

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Phillip Warren, Planning Officer
Defence Construction Canada Ltd.
Constitution Square, Suite 1720
350 Albert Street
Ottawa, Ontario K1A 0K3

Phone: 613-998-7288
Fax: 613-998-1061
e-mail: Phillip.Warren@dcc-cdc.gc.ca

as administered by:
Eva Schulz, P.Ag., Environmental Scientist
2540 Kensington Road NW
UMA Engineering Ltd.
Calgary, Alberta T2N 3S3

Phone: 403-270-9200
Fax: 403-270-0399
e-mail: eschulz@umagroup.com

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Phone:_____
Fax: _____
e-mail: _____

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

The FOX-4, Cape Hooper

Latitude: 68°26'N Longitude: 66°44'W NTS Map No. 27B, Ekalugad Fiord Scale 1:250,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

The purpose of the project is to re-pack the materials at the Temporary PCB Storage Area according to Transport Canada guidelines so the containers can be shipped off-site.

5. TYPE OF UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in **"bold"**)

___ Industrial ___**Remote/Tourism Camps**

___ **Mine Development** ___ **Municipal**
___ **Advanced Exploration** ___ Power
___ **Exploratory Drilling** _X_ Other (describe):

A temporary camp is being set up to support the re-packaging activities.

6. WATER USE

✓ To obtain water
___ To modify the bed or bank of a watercourse
To alter the flow of, or store, water
___ To cross a watercourse
___ To divert a watercourse
___ Flood control
___ Other (describe)

7. QUANTITY OF WATER INVOLVED (litres per second**,** litres per day or cubic metres per year, including both quantity to be used and quality to be returned to source)

It is estimated that the quantity of water to be used will be a maximum of 5000 litres/day. Water from the existing water supply lake will likely be pumped into a portable water tank. No water will be returned to the source.

8. WASTE (for each type of waste describe: composition, quantity, methods of treatment and disposal, etc.)

✓ Sewage
Solid Waste
Hazardous
Bulky Items/Scrap Metal
Waste oil
✓ Greywater
Sludges
Other (describe):_____

Sewage from the camp will be deposited in a pit-toilet. Once work at the site is completed, the pits will be backfilled with granular material from the site. Greywater will be deposited into a sump and buried at the end of the program.

9. PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND ✓ Yes ___ No If no, date expected _____
A Land Use Permit has been applied for, but not yet received.
Regional Inuit Association ___ Yes ___ No If no, date expected _____

Commissioner ___ Yes ___ No If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

NIRB Screening Yes ✓ No If no, date expected.

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No

11. (Continued)

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

N/A

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Hazco Environmental Services Ltd.
13511 Vulcan Way
Richmond, B.C. V6V 1K4

Attn: Vijay S. Lanji

Office Phone: (604) 214-7000
Office Fax: (604) 214-7017
E-mail: vlanji@hazco.com

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)
A full environmental clean up of the site was completed in 1998. No further studies have been completed.

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ✓ Yes ___ No If no, date expected _____

Inuktitut/English Summary of Project Yes ✓ No If no, date expected _____

Application fee $30.00 (c/o of Receiver General for Canada) Yes ✓ No If no, date expected. Because the application is being submitted in behalf of a federal proponent, no application fees are required.

15. PROPOSED TIME SCHEDULE

___ Annual (or) ✓ Multi Year

Start Date: August 2004 Completion Date: October 2005

Eva Schulz	**Environmental Scientist**		
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board use only

APPLICATION FEE **Amount: $_____** **Receipt No.:**

WATER USE DEPOSIT **Amount: $_____** **Receipt No.:**

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Defence Construction Canada **Licence No:** _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environmental Officer: Phillip Warren Tel: 613-998-7288 Fax: 613-998-1061 E-mail: Phillip.Warren@dcc-cdc.gc.ca

2. Project Manager: Daniel Paquet Tel: 613-998-9523 Fax: 613-998-1061 E-mail: Daniel.Paquet@dcc-cdc.gc.ca

3. Does the applicant hold the necessary property rights?

A Land Use Permit from Indian and Northern Affairs Canada has been applied for.

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization.

N/A

5. Duration of the Project

[X] Annual
[ ] Multi Year:
If Multi-Year indicate proposed schedule of on site activities
Start: August 2004 Completion: October 2004

CAMP CLASSIFICATION

6. Type of Camp

[ ] Mobile (self-propelled)
[X] Temporary
[ ] Seasonally Occupied: _____
[ ] Permanent
[ ] Other:_____

7. What are the design population of the camp and the maximum population expected on site at one time? What will be the fluctuations in personnel?

The camp will be able to accommodate approximately 5-10 people for one week.

8. Provide history of the site if it has been used in the past.

The site was a former Distant Early Warning (DEW) Line site. The site underwent a full environmental clean up, which was completed in 1998.

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

The camp will be located adjacent to the Airstrip at the site.

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

The camp will be located in an area of previous disturbance to minimize damage to surrounding areas.

11. Is the camp or any aspect of the project located on:

[✓] Crown Lands Permit Number (s)/Expiry Date: _____
[ ] Commissioners Lands Permit Number (s)/Expiry Date: _____
[ ] Inuit Owned Lands Permit Number (s)/Expiry Date: _____

A land use permit from Indian and Northern Affairs Canada has been applied for.

12. Closest Communities (distance in km):

The closest communities are Clyde River and Qikiqtarjuaq, located approximately 150 km from the site.

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

Information regarding the proposed work was discussed during community meetings held in Qikiqtarjuaq in 2003.

14. Will the project have impacts on traditional water use areas used by the nearby communities? Will the project have impacts on local fish and wildlife habitats?

There are no anticipated impacts on traditional water use by nearby communities nor the local fish and wildlife habitats.

PURPOSE OF THE CAMP

15. □ Mining
□ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)
(Omit questions # 16 to 21)
✓ Other - (Omit questions # 16 to 22)

16. □ Preliminary site visit
□ Prospecting
□ Geological mapping

☐ Geophysical survey
☐ Diamond drilling
☐ Reverse circulation drilling
☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
☐ Other: _____

N/A

17. Type of deposit:
☐ Lead Zinc
☐ Diamond
☐ Gold
☐ Uranium
☐ Other: _____

N/A

DRILLING INFORMATION

18. Drilling Activities
☐ Land Based drilling
☐ Drilling on ice

N/A

19. Describe what will be done with drill cuttings?

N/A

20. Describe what will be done with drill water?

N/A

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

N/A

22. Will any core testing be done on site? Describe.

N/A

SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.
A spill contingency plan is attached to this application.

24. How many spill kits will be on site and where will they be located?

The spill kit will be located within the camp and will consist, at minimum, of the following items:

- Absorbent, oil (7kg bag) – 12
- Salvage drum (85 gal) – 2
- Shovel – 2
- Gloves, rubber lined – 1 pair
- Wheelbarrow - 1

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

This information can be provided by the Contractor once the schedule has been established.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Commercially bottled water will be brought to site for human consumption. All other water will be obtained from the summer water supply lake.

27. Estimated demand (in L/day/person):

□ Domestic Use: (100 L/day/person). Water Source: water supply lake
□ Drilling Units: n/a Water Source: _____
□ Other: n/a Water Source:

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:

Water is pumped into a holding tank on a trailer hitched to an ATV and transferred to the camp area. All water intake hoses are equipped with screens with a mesh size of 2.5 millimetres or less to prevent the intake of fish.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency? Because commercially bottled drinking water will be brought to site, drinking water will not be monitored.

30. Will drinking water be treated? How?
N/A

31. Will water be stored on site?

Water will be stored at the camp in a mobile holding tank.

WASTE TREATMENT AND DISPOSAL

32. Describe the characteristics, quantities, treatment and disposal methods for:

□ Camp Sewage (blackwater)
Sewage will be disposed of in a pit toilet and covered with granular material at completion of the work.

☐ Camp Greywater
Greywater from camp operations is discharged to a sump and buried a minimum of 30 metres from the camp or any natural drainage course or water body.

☐ Solid Waste
Domestic and other non-hazardous waste will be packaged and removed from the site.

☐ Bulky Items/Scrap Metal
All camp equipment will be removed from the site after the completion of the re-pack activities.

☐ Waste Oil/Hazardous Waste
N/A

☐ Empty Barrels/Fuel Drums
Any empty barrels from the re-pack activities will be removed from the site.

☐ Other:

N/A

33. Please describe incineration system if used on site. What types of wastes will be incinerated?

N/A

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

Non-combustible, non-hazardous solid wastes will be transported off-site.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for sumps (if applicable).

N/A

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

N/A

OPERATION AND MAINTENANCE

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

There are no known O&M problems at small camps of 1-2 week durations.

ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

Site demobilization involves the removal of any and all camp equipment and materials no longer required at the site. The requirement for the contractor to undertake these activities is a contractual obligation written into the project specifications.

BASELINE DATA

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

□ Physical Environment (Landscape and Terrain, Air, Water, etc.)
□ Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
□ Socio-Economic Environment (Archaeology, Land and Resources Use, Demographics, Social and Culture Patterns, etc.)
□ Other:

Baseline data was collected prior to the site clean up, which was completed in 1998. No further baseline information will be collected.

REGULATORY INFORMATION

40. Do you have a copy of

✓ Article 13 - Nunavut Land Claims Agreement
✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
✓ NWTWB - Guidelines for Contingency Planning
✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline Fisheries Act - s.35
✓ RWED - Environment Protection- Spill Contingency Regulations
✓ Canadian Drinking Water Quality Guidelines
✓ Public Health Act Camp Sanitation Regulations
✓ Public Health Act Water Supply Regulations
✓ Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.

1 SPILL CONTINGENCY PLAN

1.1 FUEL AND HAZARDOUS MATERIAL SPILLS

.1 The objective of the fuel-related contingency plan is to protect the environment and human health by minimizing the impacts of spill events through clear and concise instructions to all personnel.

.2 A small amount of fuel may be used during the re-packaging activities at FOX-4 for the equipment and camp. As fuels are usually stored and transferred in barrels of 205 litres or smaller capacity, any spill quantity would likely be small.

.3 Transportation of fuels must comply with the *Transportation of Dangerous Goods Act and Regulations.*

.4 The most common pollution incidents would probably involve spills of diesel or gasoline onto land resulting from: human error during transfer, rupture of barrels from deterioration or damage, seepage from fittings or valves, or equipment failure. Daily checking of equipment and preventative maintenance should also identify damage to the fuel system and reduce the risk of spills or leaks.

.5 In the event of a spill, protection of human health and safety is paramount. Contamination of personnel involved in clean up is a real possibility as is contamination of the surrounding workplace and environment.

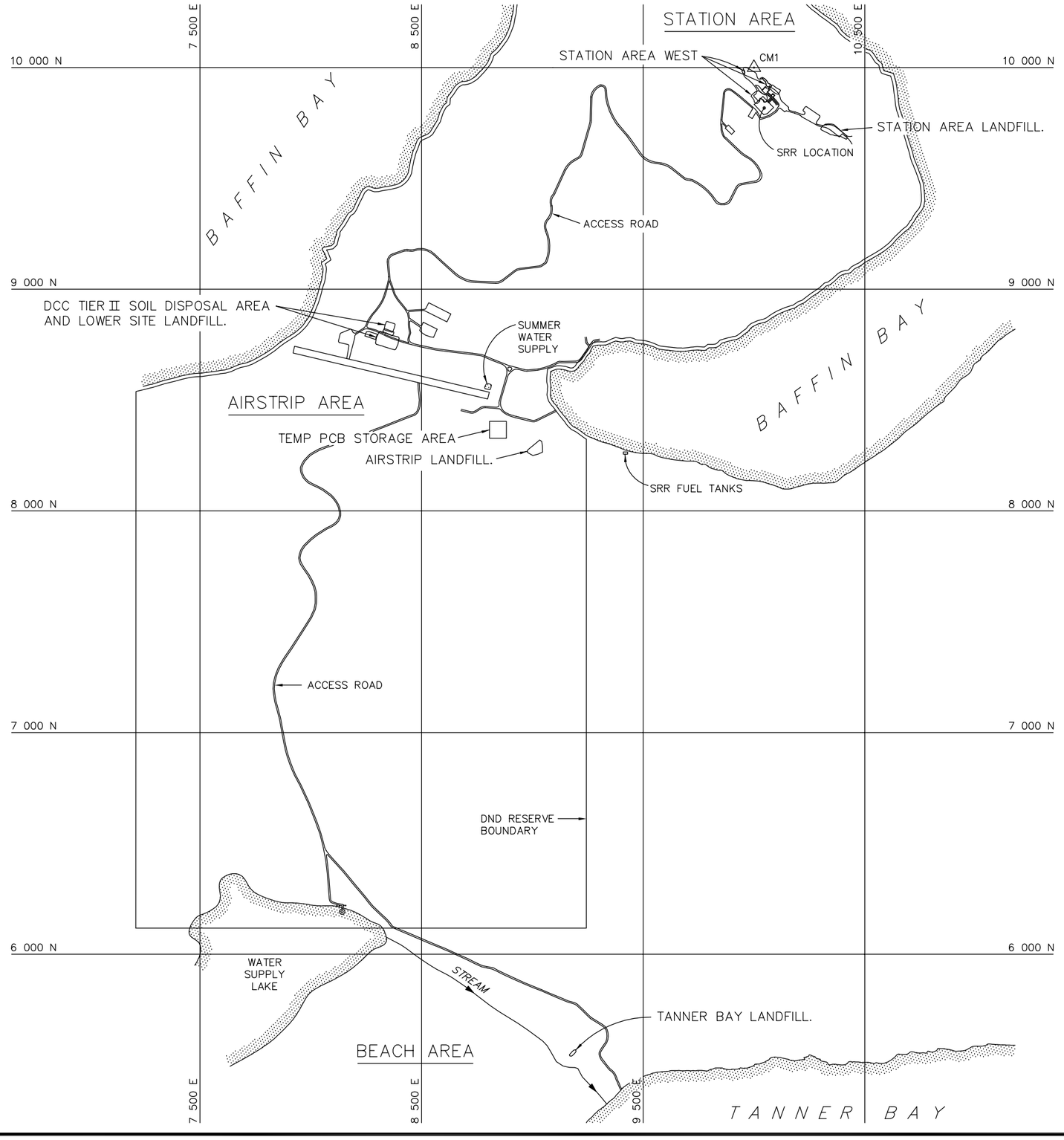
The individual discovering a spill shall:

1. Ensure personnel are appropriately trained.
2. Provide materials and equipment necessary for adequate response to fuel spills, such as excavators for creating earthen dykes and hydrocarbon absorbent booms.
3. Warn people in the immediate vicinity and evacuate the area if necessary.
4. Wear protective clothing as required for handling spills.
5. Isolate and eliminate all ignition sources.
6. Identify the spilled material if possible, and take all safety precautions before approaching it.
7. Attempt to immediately stop the leakage and contain the spill, if safe to do so.
8. Make every effort to contain the spill by dyking with earth or other barriers on land and containment booms on water.
9. Report to the Supervisor the spill location, type of material, volume and extent, status of spill (direction of movement), and prevailing meteorological conditions.

10. Follow all applicable federal/ territorial regulations and guidelines or the disposal of spill materials.
11. Document all events and actions taken. Include information required by applicable regulations and guidelines.
12. Notify appropriate government agencies using the contact list. Report spills immediately on the 24-Hour Spill Report Lone (867) 920-8130.

Table 1: Contact List

Resource	Location	Phone No.
24 Hour Spill Line	Nunavut/NWT	867-920-8130
Iqaluit Fire Department	Nunavut	867-979-4422
Environment Canada, Enforcement Branch	Head of Enforcement – Craig Broome	867-669-4730
Indian and Northern Affairs Canada	Director of Operations (Iqaluit) – Stephen Traynor	867-975-4546
Renewable Resources Officer Stations – Baffin Region	Iqaluit	867-979-5017
	Broughton Island	867-927-8966
	Hall Beach	867-928-8819
Department of National Defence through the contracting agency Defence Construction Canada	Environmental Officer – Philip Warren	613-998-7288
	Deputy Project Manager – Scott Munn	613-990-9641
	Project Manager – Daniel Paquet	613-998-9523
North Warning System Operations	Major A.D. Cameron	613-998-8602



LEGEND:

CM1 △ SURVEY CONTROL MONUMENT

SURVEY CONTROL MONUMENTS				
NO.	COORDINATES		ELEV. (m)	DESCRIPTION
	NORTHING	EASTING		
CM1	10 000.000	10 000.000	397.575	FOX-4 BASELINE STA. 0+00
				(LEAD PLUG IN ROCK)

0 200 400 600m
200 100 1:20000

DEW LINE CLEAN UP
FOX-4 - CAPE HOOPER

OVERALL SITE PLAN

FIGURE FOX-4.1

DGS NAME: F4-RD01.DWG IC - 02/05/27