uma

6/1/01 File: 0171-095-(PIN-3)-3.11

Rita Becker
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut
X0B1J0

Dear Ms. Becker:

RE: NIRB Screening Request - PIN-3, Lady Franklin Point DEW Line Site

UMA Engineering Ltd. is pleased to submit the attached Project Proposal Application as requested by the Nunavut Impact Review Board (NIRB) on May 10, 2001. A June 1, 2001 telephone conversation between UMA and NIRB indicated that the project proposal application was to be forwarded to NIRB through the Nunavut Water Board. At the time of submission, the Inuinaktun translation of the non-technical project summary was not available. Arrangements to have the summary translated into Inuinaktun have been made and the summary will be forwarded to the Nunavut Water Board and NIRB upon its receipt by UMA.

Site investigation activities at Lady Franklin Point are scheduled to commence in mid July, 2001. Please notify the undersigned if the review process is expected to extend beyond this date.

Sincerely,

UMA ENGINEERING LTD.

Graham Emmerson, E.I.T.
Project Engineer
gemmerson@umagroup.com

Encl.

cc: P.Quinn, DCC/E. Schulz, UMA/A. Dumoulin-Jeromel, ESG

PROJECT PROPOSAL INFORMATION REQUIREMENTS

SECTION 1: APPLICANT INFORMATION

1. Applicant's full name and mailing address:

Pete Quinn
Project Manager DEW Line Cleanup
Defence Construction Canada
Place de Ville, Tower B
112 Kent Street, 17th Floor
Ottawa ON K1A 0K3

Administered by:
Graham Emmerson, EIT
UMA Engineering Ltd.
2540 Kensington Road NW
Calgary AB T2N 3S3

Fax: UMA: (403)270-0399
DCC: (613)998-1061

Phone:
UMA: (403)270-9207
DCC: (613)998-9523

Email:
gemmerson@umagroup.ca
quinnpe@dcc-cdc.gc.ca

2. Head office address:
(same as above)

Fax: (same as above)

Phone: (same as above)

Email: (same as above)

3. Field Supervisor (address, if different from above):
To be determined. (Please address all correspondence to people listed above.)

Phone (radio or otherwise):

4. Other Personnel list (name and position + subcontractors and contractors):
Project teams to be determined. Estimate approximately 7-11 persons.
Support Staff (to be determined by the camp outfitter): Approximately 3-5 people

Total # of personnel: Estimate 10-16 people
Total # of person days: 13 persons x 17 d = 221 person days
Shift schedule: Approximately 10-12 hrs/d.

SECTION 2: AUTHORISATION NEEDED

5. Indicate and circle the authorisations associated with the project proposal:

Inuit:

☐ Regional Inuit Association (land use permits and licenses, lease-land, recreational, commercial, quarry permit, access permit)

Co-Management Board:

X Nunavut Water Board (water license)
☐ Nunavut Planning Commission (amendment to the land use plan)

Federal:

X DIAND (land use permit, land lease, quarry permit, water license-if transboundary)
☐ Department of Fisheries and Oceans (under Fisheries Act -Loss of fish habitat, fisheries research, Navigable Waters Protection Act authorisation)
☐ Department of Environment (Access to protected area, scientific research, ocean disposal)

GNWT:

☐ Municipal and Community Affairs (land use permit, land lease, quarry permit)
☐ Nunavut Research Institute (research permit)
☐ Department Resources Wildlife and Economic Development (Fisheries/wildlife permit, wildlife research permit)

Other:

☐ Hamlet (development permit, lease, quarry permit)
☐ Canadian Launch Safety (launch authorisation)
☐ _____

6. List the active permits, licences or rights related to the project and their expiry date:_____
_____

SECTION 3: PROJECT PROPOSAL DESCRIPTION

7. Indicate and circle the activities related to the project proposal:

Mining/Oil & Gas:	*Construction:*	*Tourism:*	*Research:*
☐ exploration (geophys-grd/air)	**X** camp	☐ tourism facility >20beds	☐ wildlife/fish/birds/marine
☐ drilling (diamond/ice,etc)	☐ building	☐ access to a protected area	☐ survey(grd/aerial/collars)
☐ advanced exploration	☐ winter road	☐ cruise ship	☐ collection of species
☐ bulk sampling	☐ all-season road	☐ outfitting	☐ research station
☐ mine (open pit, undergrd,etc)	☐ Other: _____	☐ Other: _____	☐ Other: _____

Municipality:	*Marine:*	*Other:*
☐ bulk storage of fuel	☐ off-shore drilling	☐ commercial harvest
☐ power generation	☐ ship movements	☐ aircraft use (helicopter/airplane)
☐ hydroelectric	☐ construction (breakwater/bridge/dock)	☐ rocket launch
☐ nuclear	☐ obstruction (navigation/fish movement)	**X** DEW Line Cleanup Site Investigation
☐ industrial activity	☐ ocean disposal	☐ _____

** A camp for the project team will be set up in one of the on-site buildings.

8. Project duration and location:

Period of operation: 18-29 July, 2001 *and* 7-14 August, 2001 (Tentatively)
Proposed term of permit: July 1, 2001 *to* August 31, 2001

Region:
☐ Baffin ☐ Kivalliq **X** Kitikmeot ☐ Transboundary: _____

Land Status:
X Crown ☐ Commissioners' ☐ Inuit Owned Surface Lands ☐ Inuit Owned Sub-Surface Lands ☐ Other: _____

Co-ordinates: 68^0 28' N and 113^0 13' W

Min Lat (degree/minute):	**Min Long (degree/minute):**
Max Lat (degree/minute):	**Max Long (degree/minute):**

NTS Map sheet #: 87A – Cape Krusenstern (87A/ 7E)
Please ensure that maps of the project area are attached (1:50 000, 1:250 000)
Figure 1, Appendix A is a topographic map segment showing the PIN-3 DEW Line Site. Figure 2 is an overall site plan of PIN-3 showing the proposed location of the site investigation camp.

NON-TECHNICAL PROJECT PROPOSAL SUMMARY

9. Please include a non-technical description of the project proposal, no more than 300 words, in English & Inuktituk (+ Inuinaktun, if in the Kitikmeot). The project description should outline the project activities and their necessity, method of transportation, any structures that will be erected, expected duration of activity and alternatives considered. If the proposed activity fits into any long-term developments, please describe the projected outcome of the development for the area and its timeline.
Copies of the non-technical project description are provided in Appendix B.

SECTION 4: MATERIAL USE

10. List equipment (including drills, pumps, aircrafts, etc.):

Equipment type and number	Size- dimensions	Proposed use
1 Twin Otter Aircraft		Mobilization and resupply (if required)
1 C-46 Aircraft		Debmobilization
1 Mini-excavator		Digging and backfilling of test pits
4 ATVs and 1 trailer		On-site transportation
3 Generators	Estimate approximately 6 kW each	Power source to the camp

11. Detail fuel and hazardous materials use:

Fuels	Number of Containers	Capacity of Containers (gal & litres)
• **Diesel**	2 drums	45 gal or 205 L each
• **Gasoline**	5 drums	45 gal or 205 L each
• **Aviation fuel**	None	
• **Propane**	None	
• **Other**	None	
Hazardous Materials		
•		
•		
•		

1. **Do you have a spill contingency plan?** yes
   Do you have an on-site staff training program in place for fuels and hazardous materials? Yes

Please attach the spill contingency plan and Material Safety Data Sheets and other appropriate information about the hazardous materials associated with the proposed project. A copy of the PIN-3 DEW Line site investigation contingency plan is provided in Appendix C.

13. Describe method of fuel transfer:

The camp outfitter will determine the method of fuel transfer. The outfitter will also supply fuel transfer pumps and absorbent material. The contract for the camp outfitter has not yet been awarded.

SECTION 5: WASTE DISPOSAL AND TREATMENT FACILITIES

Type of waste	Projected amount generated	Method of disposal	Additional treatment procedures
Sewage		Buried 100 m from drainage course or water body	
Grey water		Discharged to a pit and buried 30 m from drainage course or water body	
Garbage		On-site burning with residual to be buried with sewage	
Overburden (organic soil, waste material, tailings)	None		
Hazardous waste:	None		
Other: (lab waste)	Less than 20 L	Containerized and labelled. Stored in a suitable DEW Line Facility for disposal during site cleanup.	

14. Describe the acid rock drainage potential of waste rock material and testing methods, if applicable:

Not applicable.

SECTION 6: RESTORATION AND ABANDONMENT PLANS

15. Describe or attach the proposed restoration and abandonment plans. Please include information about on-going site remediation throughout the duration of the project.

All equipment, supplies and materials brought to the site for the purpose of the site investigation will be removed from the site at the completion of the activities or stored in the hangar for use during the site cleanup scheduled to start in 2002. All test pits will be backfilled and any overburden displaced by the test pits will be respread over the area. Waste products will be disposed of as previously mentioned.

SECTION 7: ENVIRONMENTAL IMPACT

16. Indicate and describe the components of the environment that are near the project area, as applicable. Attach any relevant maps or information:

Type of species (common name, associated herd, etc.)	**Important Habitat Area** (calving, staging, denning, migratory pathways, spawning, nesting, etc.)	**Critical time periods** (calving, post-calving, spawning, nesting, breeding, etc.)
Fish: several species including Arctic char		
Caribou: (numerous observed)	Calves observed in July 2000	
Muskox: (several herds observed)		
Raptor:		
Migratory Birds: several species including snow bunting, semipalmated plovers, gulls, sand pipers, Arctic tern	Arctic terns, snow bunting observed nesting in the area in July 2000	
Waterfowl: Canada geese, eider duck	Canada geese and eider ducks observed nesting in the area in July 2000	
Seals:		
Whales:		
Narwhals:		
Canid family (wolves, wolverines, foxes, etc.): Arctic fox		
Bears (grizzly, polar, black, etc.): grizzly (none observed in 2000)		
Other:		
Eskers:		
Communities: Kugluktuk – approx. 125 km to the SW		
Historical/Archaeological sites: Several heritage features identified including a Thule village with associated midden and burials, and four campsites consisting of tent rings, caches and grave sites.		

17. Indicate and describe other uses of the area:

X Traditional use (hunting/fishing/spiritual): Inuit outpost camp located on the shores of Coronation Gulf (approx. 1.5 km west of the main station area)

☐ Outfitting: _____

☐ Tourism: _____

☐ Local development: _____

☐ Mineral development: _____

☐ Other: _____

_____

18. Describe the impacts of the proposed project activity on the environmental components and uses in the area, listed above:

The *Environmental Impact Summary Table*, provided in Appendix D, describes the potential impacts to the biological, historical and socio-economic resources of the site.

19. What are some suggested mitigation measures for these impacts?

The proposed mitigative actions to be taken by field investigation personnel are summarized in the *Environmental Impact Summary Table* included in Appendix D.

20. List the environmental and socio-economic studies conducted in the area:

Associated with the project: A bibliography of the environmental and socio-economic studies conducted in the area is provided in Appendix E.

Pending Research: _____

Relevant research not associated with the project: _____

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

21. List the community representatives that have been contacted about this proposed project:

Community	Name	Organisation	Date contacted	Means	Telephone #	Fax #

See section 23.

22. Describe the level of involvement that the residents of Nunavut have had with respect to the proposed project:

The residents of Nunavut have been involved with the project since the early 1990s through public meetings held in several communities across the territory. Specifically for the work at Lady Franklin Point (PIN-3), community meetings have been held in Kugluktuk. During the site investigation work, local residents are typically hired as bear monitors to work at the site. It is anticipating that there will be more involvement through community meetings an employment opportunities during the cleanup phase of the project which is scheduled to start in 2002.

23. Describe the regional benefits of the project proposal to the residents of Nunavut:

X employment: Past DEW Line investigations of a similar scope have provided employment opportunities for members of nearby communities as camp outfitter staff, equipment operators and bear monitors. Staffing is the responsibility of the successful contractor. The outfitter contract has not been awarded at this time.

☐ training programs: _____

X contracts: As previously mentioned, a contract for the camp outfitter and bear monitors will be tendered.

☐ Inuit Impact Benefits Agreements, if applicable: _____

☐ Other: _____

24. Describe and attach documentation regarding community concern or support for the proposed project:

Meetings have been held in Kugluktuk regarding the on-going work at PIN-3 on the following dates:

1. 1992: Community meeting to present the base cleanup protocol and plan and hear suggestions and ideas from the public.
2. May/June 1993: Community meeting to provide an update on the current status of the project; present information on site investigations.
3. 1994: Meetings with Kitikmeot Inuit Association, Nunavut Tunngavik Inc. and Nunavut Planning Commission in Cambridge Bay.
4. January 2000: Meeting with Mayor and Hamlet Officials regarding the fire at PIN-3.
5. April 25, 2001: Community meeting to provide update on past and future work at PIN-3.
6. May 18, 2000: Community meeting with to provide an update on the emergency cleanup associated with the PIN-3 fire.

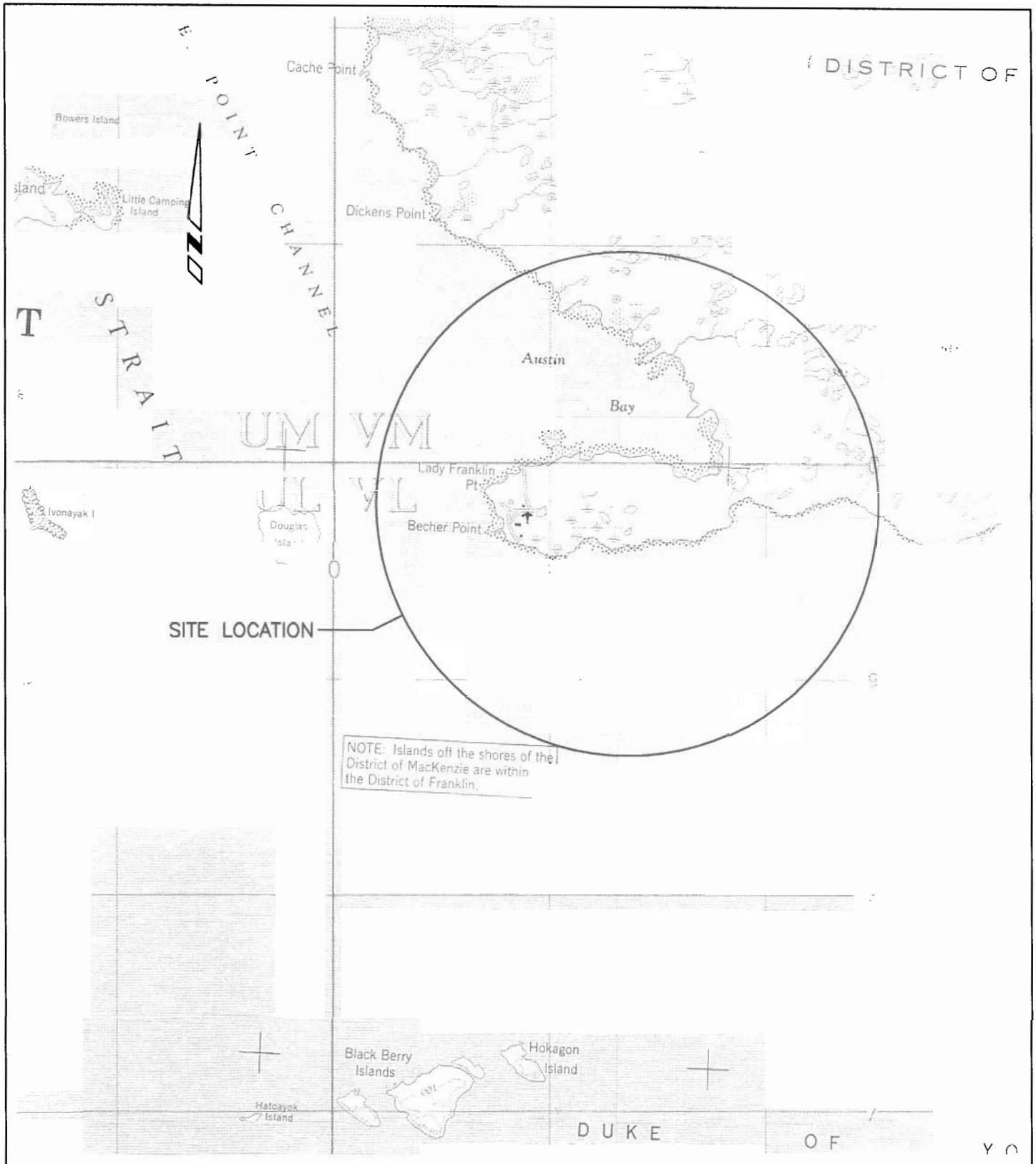
Applicant:

Graham G, Project Engineer, June 01 - 2001

Signature **Title** **Date**

Office Use Only			
Application checklist	**Date received**	**Description**	**Accepted by**
• All authorising agency info			
• Application complete, signed and dated			
• Maps of proposed project			
• Maps of use in area			
• Baseline studies info			
• Community consultation records			

Appendix A
Figures



REFERENCE FROM 1957 MAP, CAPE KRUSENSTERN, EDITION 1
ARMY SURVEY ESTABLISHMENT, R.C.E.

REV	Y	M	D	ISSUE/REVISION DESCRIPTION	CO DRN	ES DES	ES CHK	ENG
05	01	12	15	FOR REPORT				

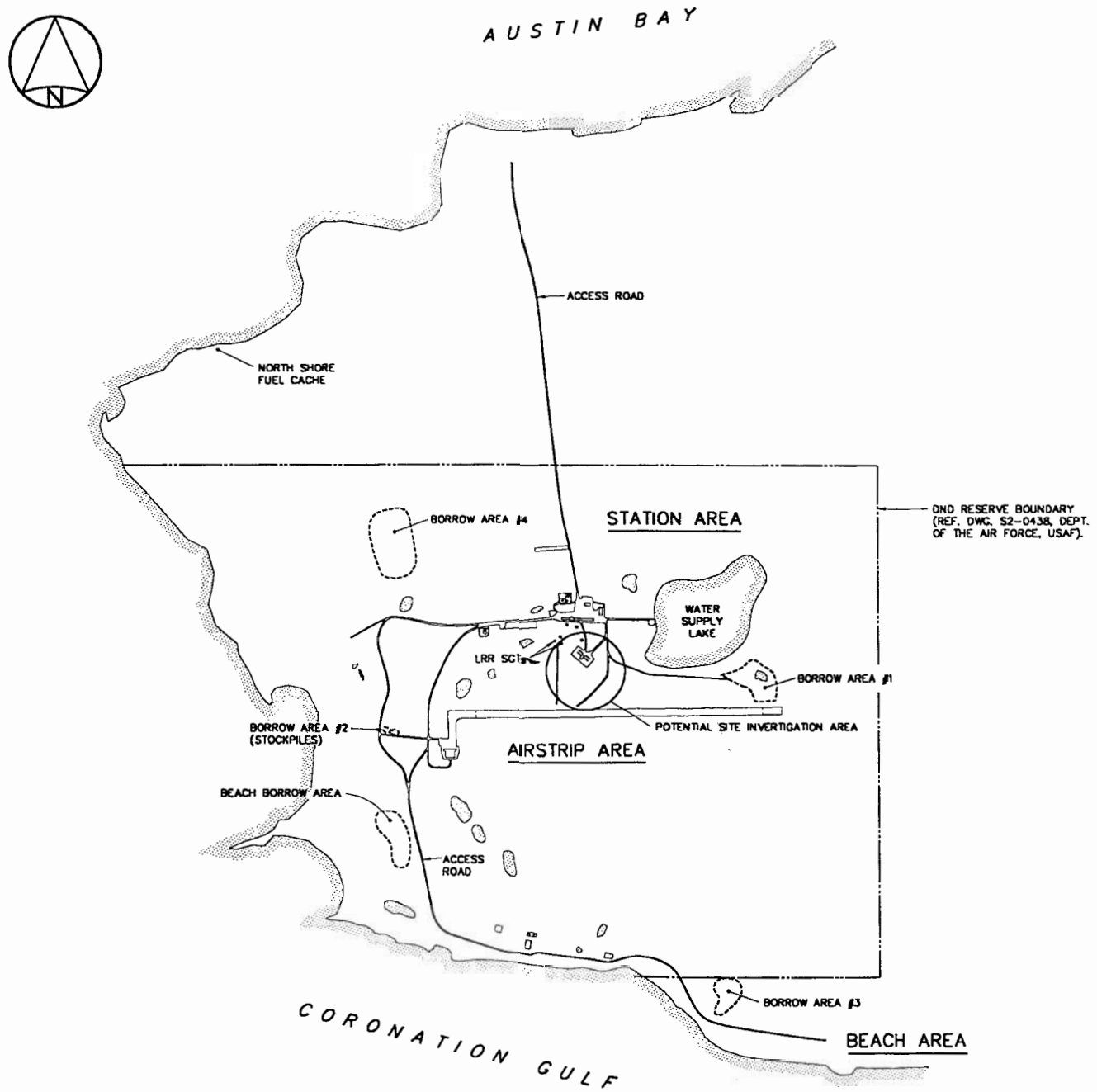
UMA Engineering Ltd.
Engineers, Planners & Surveyors
2540 Kensington Road N.W., Calgary, Alberta, Canada T2N 3S3

METRIC

NUNAVUT TERRITORY

PIN-3
LADY FRANKLIN POINT
SITE LOCATION PLAN

UMA JOB No.	ACAD FILE No.		ISS/REV
0171-095-68-08	EW-117	FIGURE 1	0



National Defence / Défense nationale

Headquarters
Quartier général

General Notes:

Legend:

BODY OF WATER

No.	DATE	CONCEPTUAL DESIGN REVISION	REVISION	APPR.

UMA — SCALE – ECHELLE 200 100 0 200 400 600m

PROJECT – PROJET
PIN-3 LADY FRANKLIN POINT

DEW LINE CLEAN UP

TRADE – METIER	DATE
SITING	2001-XX-XX

SUBJECT – SUJET

OVERALL SITE PLAN

PRODUCTION	CONCURRENCE – ASSENTIMENT	
DESIGNED ETUDIE SMS/TMS		DES OFF AGENT CONCEPT
DRAWN DESSINE CAE		SECT HD CHEF SECT
CHECKED VERIFIE TT/WK		DES MGR GEST CONCEPT
COORDINATION ASW	REVIEWED – REVU	

FIGURE 2

Canada

Appendix B
Non-Technical Project Summary

APPENDIX B: NON-TECHNICAL PROJECT PROPOSAL SUMMARY

The Lady Franklin Point DEW Line Site, designated PIN-3, was converted to a North Warning System (NWS) Long-Range Radar (LRR) site. A fire destroyed the module train structure at PIN-3 in January 2000 and left the site non-operational. Because of the fire, the DEW Line Cleanup of the site at Lady Franklin Point has been advanced and is currently scheduled to begin in 2002.

Prior to all DEW Line Cleanup (DLCU) activities, a detailed site investigation is undertaken to provide information to be used in the reclamation design. The Lady Franklin Point (PIN-3) site investigation was undertaken in July and August of 2000 and included the following activities:

1. Collection of soil samples to delineate known areas of contaminated soil.
2. Collection of water samples including surface and groundwater samples.
3. Collection of structural materials samples (to determine concentrations of PCB and lead in paint and asbestos in insulating materials).
4. Inventory of buildings and facilities on site.
5. Identification of surface debris areas.
6. Geophysical survey of landfills to determine lateral extent of buried waste.
7. Identification of potential sources of granular material required for the clean up activities.
8. Identification of potential locations for site disposal facilities, storage areas, construction camp, etc. required for clean up activities.
9. Completion of topographic and location surveys.

A site investigation revisit to Lady Franklin Point is scheduled during the months of July and/or August of 2001 to collect additional information required for the reclamation design. This information will supplement that collected during the 2000 detailed site investigation to the site and will include the following:

1. Collection of soil samples to delineate known areas of contaminated soil. Subsurface samples will be collected from test pits excavated using a mini-excavator. A focus will be placed on the collected of depth samples from hydrocarbon contaminated areas.
2. Collection of information on the environmental status of existing landfills including baseline landfill monitoring data.
3. Collection of water samples including surface and groundwater samples. If required, temporary groundwater wells may be installed in test pits.
4. Possibly, additional geophysical surveys to determine the lateral extent of buried debris.
5. Completion of topographic and location surveys.

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ᐅᒥᐊᓐᖓᔪᐊᖏᒥ ᑎᐅᓪᓚᐃᓐ ᐅᓇᕈᖅᑐᒃᓴᐃᑦ ᐃᓂᖅᐸᕕᓂᖏᑦ ᖃᐅᐅᓴᓐᖓᔪᖏᑦ, ᑕᐃᔨᐅᐅᔨᖅ PIN-3, ᐅᓇᕈᖅᑐᖃᓕᖅᑕᑦ ᖃᐅᐅᓴᓐᖓᐃᖅᓯᐅᖅᓱᖅ (NWS) ᐅᖏᓪᓗᑐᒍᓪᓚᑦ ᓇᓪᓕᔫᓐᓇᖅᓯᖏᐊᔨᓪᓂᓂ (LRR) ᐃᓂᒋᓕᖅᓴᓂᐅᒃ. ᐃᓱᐊᓕᓚᒃᑐᒍᓪᓚᑦ ᓯᑭᖅᑕᐅᓕᐅᖅᓱᖅ PIN-3 ᔨᓂᐊᓗ 2000-ᒥ ᐊᒻᒪ ᐱᓕᕆᐊᖃᖏᑦᓇᐃᓐᓕᓕᔪᓂ. ᐃᓱᐊᓕᓚᑎᓕᔪᒍ ᐅᒥᐊᓐᖓᔪᐊᖅ ᓴᓗᒪᖅᓴᖅᑕᐅᔨᖏᓂᐊᕐᕕᖅᑕᖏᑦ ᓯᑲᓴᓗᐊᖅᑕᐅᑲᖅᓱᖅ ᐊᒻᒪ ᐱᓕᕆᐊᖅᐳᖏᓂᐊᖅᓱᖅ 2002-ᒥ.

ᑕᒪᐃᓐᓂᒃ ᑎᐅᓚᐃᓐ ᓴᓗᒪᖅᓴᖅᑕᐅᓐᖓᓐᓂᓐᓂ (DLCU) ᐱᓕᕆᐊᖃᓯᓪ, ᐅᓂᒃᑲᖅᑕᐅᓯᒪᔨᖅ ᐃᓂᐅᔨᒥ ᐱᓕᕆᐊᖃᐃᖅᑐᖅ ᐊᑐᐃᓐᓇᐅᑎᑎᕐᕆᔨᑕᐅᔨᒪᔨᓪᓂᓂ ᑐᓴᒃᖅᑕᐅᓂᐊᖅᓱᖅ ᓄᑕᖅᖃᖅᑎᓇᓵᔨᑕᐅᓗᓂᒃ ᐱᓕᕆᐊᖅᓴᖅᑕᐅᔪᒪᓪᓚᑦ. ᐅᒥᐊᓐᖓᔪᐊᖅ (PIN-3) ᐃᓂᓐᒃ ᖃᐅᐅᓴᖅᑕᐅᔨᖅ ᐱᓕᕆᐊᖃᓚᐅᖅᑐᖅ ᔨᓚᒪ ᐊᒻᒪ ᐋᓐᓴᓂᒥ 2000 ᐊᒻᒪ ᐅᔪᓂᓐᒃ ᐱᓕᕆᐊᖃᓯᓂᒃ ᐃᓚᖅᓚᐅᖅᑐᖅᓱᖅ:

1. ᑲᑎᑕᐅᓂᖏᓐᓂᒃ ᒪᓂᕆᒥ ᖃᐅᐅᓴᖅᑕᐅᓂᐊᖅᑐᑦ ᖃᐅᐅᔨᓚᓗᑎᒃ ᐋᓐᓂᐊᕆᓇᓕᖅᑐᑎᒃ ᒪᓂᕆᒥ.
2. ᑲᑎᑕᐅᓂᖓ ᐃᒪᐅᑦ ᖃᐅᐅᓴᖅᑕᐅᔨᖅᓴᖅᑦ ᐃᓚᐅᑐᓗᔪ ᒪᓂᕆᒥᑦ ᐊᒻᒪ ᒪᓂᕆᐅᑦ ᐃᓗᐊᓂᓂ ᖃᐅᐅᓴᖅᑕᐅᔨᖅᓴᖅᑦ.
3. ᑲᑎᑕᐅᓂᖏᑦ ᐱᓕᕆᖃᕆᐊᑦ ᖃᐅᐅᓴᖅᑕᐅᓂᒃᓴᖅᑦ (ᓇᓗᓇᐃᖅᓯᔨᓗᑎᒃ ᐱᓯᐱᓂᒃ ᐊᒻᒪ ᓴᐃᐊᓐᒃ ᒥᖅᔪᐊᓂᓂ ᐊᒻᒪ ᐃᓱᐊᓕᓚᐅᑐᑐᒍᓂ ᐃᑭᐊᖃᓕᓂᓂ).
4. ᖃᐅᐅᓴᖅᐃᓕᓗᑎᒃ ᐃᒪᓗᓯᐊᓂᒃ ᐱᓯᒋᓂᒪᓗ ᐃᓂᐅᔨᒥ ᐱᓕᕆᐊᖃᖏᓐᓂᓂ.
5. ᓇᓗᓇᐃᖃᓗᑎᒃ ᒪᓂᕆᐅᑦ ᐊᑲᑐᓯᖏᓐᓂᒃ.
6. ᓴᐅᔨᐅᓯᒪᔨᑦ ᒪᓂᕆᐅᓯᑦ ᖃᐅᐅᓴᖅᑕᐅᓗᑎᒃ ᖃᓄᖅ ᓴᐅᓯᓯᒪᑎᑎᐊᖅᓴᖏᓐᓂᒃ ᖃᐅᐅᓴᖅᐃᐊᒪᓕᓗᑎᒃ.
7. ᓇᓗᓇᐃᖃᓂᖏᑦ ᑐᐊᕐᓂᒃ ᐊᑐᖅᑕᐅᑎᐊᖃᖅᑐᒃ ᓴᓗᒪᖅᓴᐃᔨᐅᑕᐅᓗᑎᒃ.
8. ᓇᓗᓇᐃᖃᓗᑎᒃ ᐃᓂᐅᔨᒥ ᐊᑲᑯᖅᑕᐅᓯᐊᖅᓴᓂ, ᑐᓴᖃᓯᓯᒪᓯᐊᖅᓴᓂ, ᓴᓇᔨᐅᓯᐊᖅᓴᓂᒃ ᕿᓚᒻᒥᐃᐅᓂᐊᖅᑐᓂᒃ, ᐊᓯᓐᖏᓂᓗ, ᓴᓗᒪᖅᓴᖅᑕᐅᔨᐅᔨᑕᐅᑎᐊᖃᖅᑐᓂ.
9. ᐱᐊᓂᒃᑕᐅᓂᖓ ᓄᓇᐅᓯ ᓄᓇᑎᔨᐅᔨᒥᓗ ᖃᐅᐅᓴᖅᑕᐅᔨᓯ.

ᐃᓂᐅᔨᒥ ᖃᐅᐅᓴᖅᑕᐅᓂᐊᖅᓱᓗᓂ ᑕᑯᔨᖅᑐᖅᑕᐅᔨᒃᖃᓐᓂᓂᐊᖅᓱᖅ ᐅᒥᐊᓐᖓᔪᐊᖅ ᑕᕿᖏᓐᓂ ᐊᒻᒪ ᐊᓚᓗᓕ/ᐅᐸᓪᓗᓐᓂᑦ ᐃᓚᖅᓗ 2001-ᒥ ᒃᑎᑎᑭᐊᖃᖅᑐᓂᐊᖅᓱᖅᓴᖅᑦ ᑐᓴᒃᖅᑕᐅᑎᐊᖃᖅᑐᖅᓴᖅᑦ. ᒐᓐᓇ ᑐᓴᒪᓴᖅ ᐃᓕᑎᔨᐅᓂᐊᖅᓱᖅ 2000-ᒥ ᑐᓴᖅᑕᐅᔨᓄᑦ ᐃᓂᐅᔨᒥ ᖃᐅᐅᓴᖅᑕᐅᓕᐅᖅᑎᓪᓗᑎ ᐊᒻᒪ ᐃᓕᖃᓴᓂᐊᖅᓱᓂ:

1. ᑲᑎᑕᐅᓂᖏᓐᓂᒃ ᒪᓂᕆᒥ ᖃᐅᐅᓴᖅᑕᐅᔨᒪᔨᑦ ᓇᓗᓇᐃᖅᓯᔨᓗᑎᒃ ᐋᓐᓂᐊᕆᓇᖅᓯᔨᐅᒃ ᒪᓂᕆᒥ. ᒪᓂᕆᐅᑦ ᐃᓗᐊᓂ ᖃᐅᐅᓴᖅᑕᐅᔨᒪᔨᑦ ᑲᑎᑕᐅᓂᐊᖅᑐᑦ ᖃᐅᐅᓴᖅᐃᓚᐅᓂᐊᖅᓱᖅ ᑐᓴᖅᑕᐅᓂᐊᖅᑐᑦ ᑎᑭᑦᓗᓂ ᐊᒻᒪ ᐱᓕᕆᐊᖃᖅᑐᖅᓴᖅᑦ ᐃᓗᐊᓂ ᐃᓕᖃᓴᓂᐊᖅᓱᓂ.
2. ᑲᑎᕐᓗᓂᒃ ᑐᓴᒪᓴᖅᑐᒃ ᐊᓯᓗᒥᐅᑕᐃ ᐃᓕᓴᓯᓯᒪᓂᖅᑐᒃ ᒪᓐᓇ ᔨᐅᐅᔨᓯᐅ ᐃᒪᐅᓗᑎᑦ ᒪᓂᕆᒥ ᖃᐅᐅᓴᖅᐃᓚᐅᔨᒪᔨᑦ.
3. ᑲᑎᑕᐅᓂᖏᑦ ᐃᒪᒥ ᖃᐅᐅᓴᖅᑕᐅᔨᒪᔨᑦ ᒪᓂᕆᐅᑦ ᖃᓄᖅ ᐊᒻᒪ ᒪᓂᕆᐅᑦ ᐃᓗᐊᓂᓂ ᖃᐅᐅᓴᖅᑕᐅᓗᑎᒃ. ᐱᒋᐊᖅᓴᑦ, ᒪᓂᕆᒥ ᐃᒪᒥᐅᓕᐅᖅᑎᓪᓗᑎᒃ ᐃᓕᓴᓯᓯᒪᓂᖅᑐᒃ ᐃᓕᓴᓯᓯᒪᓂᖅᑐᒃᓴᖅᑦ ᖃᐅᐅᓴᖅᑕᐅᓕᖅᓴᖅᑦ ᖃᐅᐅᓴᖅᑕᐅᓴᖅᑎᓪᓗᑎᒃ.
4. ᐃᓚᒪᖃᓕ, ᖃᐅᐅᓴᖅᐃᓚᐅᖅᓱᖅᑦ ᒪᓂᕆᒥᒃ ᖃᐅᐅᓴᖅᑐᑎᓪᓗᑎᒃ ᓴᐅᔨᐅᓯᒪᔨᑦ ᖃᓄᖅ ᐊᑲᑎᑕᐅᑲᑎᑕᐅᓂᐊᖅᑐᑦ ᖃᐅᐅᓴᖅᐃᓚᐅᔨᒪᔨᑦ.
5. ᐱᐊᓂᒃᑕᐅᓂᖓ ᒪᓂᐅᑦ ᖃᓄᖅ ᐊᒻᒪ ᐃᓂᐅᔨᒥ ᖃᐅᐅᓴᖅᐃᓂᐅᔨᑦ.

Appendix C
Contingency Plans

APPENDIX C: CONTINGENCY PLANS

1.1. GENERAL

.1 The following generic contingency plans present the prescribed course of action to be followed in the case of unanticipated events during clean up such as fuel or chemical spills, potentially dangerous wildlife encounters, and the discovery of heritage resources. The plans will enable persons in a particular contingency situation to maximize the effectiveness of the environmental protection response and meet all regulatory requirements for reporting to the appropriate authorities.

.2 Spill contingency plans for the site will be included in the Site Specific Investigation Plans. The following information will be included:

- .1 a description of pre-emergency planning;
- .2 personnel roles, lines of authority and communication;
- .3 emergency alerting and response procedures;
- .4 evacuation routes and procedures, safe distances and places of refuge;
- .5 emergency phone numbers;
- .6 directions/methods of getting to the nearest medical facility;
- .7 emergency decontamination procedure;
- .8 emergency medical treatment and first aid;
- .9 emergency equipment and materials;
- .10 emergency protective equipment;
- .11 procedures for reporting incidents; and
- .12 spill response and containment plans for all materials that could potentially be spilled.

1.2. 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 variety of fuels (diesel, gasoline and lubricating oils) may be used during the site investigation of the DEW Line sites. 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. Fuel tanks, connection lines, etc. shall be checked on a daily basis to identify any spills, leaks, or damage.

.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. Identify the spilled material and quickly assess:
    - How extensive is the spill?
    - Are there any nearby water courses/potable water sources?
    - Are there any ignition sources nearby?
    - Refer to MSDS Sheets or government authority for material handling measures if unknown.
2. Warn people in the immediate vicinity and evacuate the area if necessary. Don personal protective equipment if necessary.
3. Obtain materials and equipment necessary for adequate response to fuel spills, such as excavators for creating earthen dykes and absorbent booms.
4. Isolate and eliminate all ignition sources.
5. Attempt to immediately stop the leakage and contain the spill, if safe to do so.
6. Make every effort to contain the spill by dyking with earth or other barriers on land and containment booms on water.
7. Report to the Field Team Leader the spill location, type of material, volume and extent, status of spill (direction of movement), and prevailing meteorological conditions.
8. Follow all applicable federal/ territorial regulations and guidelines or the disposal of spill materials.
9. Document all events and actions taken. Include information required by applicable regulations and guidelines.
10. Team Leader to notify the appropriate government agencies using the contact list. Report spills immediately on the 24-Hour Spill Report Lone (867)920-8130.

1.3. KEY CONTACT LIST

.1 24 Hour Spill Report Line

.1 In the event of a spill, contact the 24-Hour Spill Report Line and provide with all the relevant details.
Telephone: (867) 920-8130 Fax: (867) 873-6924

.2 Environment Canada, as lead agency shall then be contacted by officials to ensure the appropriate response. The lines are staffed 24

hours a day and can also be used to co-ordinate a response in the event of a non-spill emergency outside of normal working hours.

.2 Other Contacts

.1 In the event of a non-spill emergency (e.g. related to wildlife, fisheries, heritage resources, etc.) contacts are provided in Table 1. If any activities adversely affect the North warning System operations, contact immediately R. Helm, NWSO Ottawa (613) 992-0755 fax: 996-3925.

.3 PMO Contacts

All significant events should be reported to the Project Management Office in Ottawa. Key contacts are as follows (Fax number is 613-998-1061):

- Contract Manager - Shawn Helmerson (613) 998-4511
- Project Manager – Pete Quinn (613) 998-9523
- Project Engineer - Scott Munn (613) 990-9641

TABLE 1

CONTACTS FOR RESOURCE INTERESTS

Resource	Location	Agency	Phone No.	Fax No.
Land Use	Yellowknife	Indian and Northern Affairs	(867) 669-2671	(867) 669-2713
	Iqaluit	Indian and Northern Affairs	(867) 979-4405	(867) 979-6445
Fisheries, Marine Mammals	Yellowknife	Fisheries and Oceans Canada	(867)667-4900	(867)669-4941
	Iqaluit	Fisheries and Oceans Canada	(867) 979-8002	(867) 979-8039
Wildlife	Iqaluit	Department of Sustainable Development	(867) 975-5902	(867)975-5980
Migratory Birds	Yellowknife	Canadian Wildlife Service	(867) 669-4700	(867) 873-8185
Heritage Resources	Yellowknife	Prince of Wales Northern Heritage Centre	(867) 873-7551	(867) 873-0205
	Iqaluit	Inuit Heritage Trust	(867) 975-5500	(867)975-5504

Appendix D
Environmental Impact Summary Table

APPENDIX D: ENVIRONMENTAL IMPACT SUMMARY TABLE

The following table summarizes the identified impacts associated with the site investigation activities at the DND DEW Line sites and the required mitigative actions.

Description	Significance	Monitoring/ Mitigation Requirements
Degradation of permafrost due to test pit excavation activities	Potentially significant in excavations in ice rich ground	• Backfill excavations as soon as practical • Replace vegetation cover or topsoil as soon as possible after excavation
Potential risks to soils, terrestrial and aquatic habitat and human safety from accidental events, such as fuel spills	Potentially significant in the case of spillage	• Development of a contingency plan outlining procedures to follow in the event of an accidental spill, such as secondary containment • Training and education of personnel in emergency procedures • Proper fuel handling and storage techniques (particularly when refuelling equipment)
Disruption of heritage sites from test pit excavation activities and activities of on-site personnel	Potentially significant (prior to mitigation) in areas of high archaeological resources	• Report and record any features of potential interest, ensure areas are clearly marked • Monitor during excavation for additional features • All personnel to be discouraged from visiting archaeological and other heritage sites • Removal or disturbance of artefacts prohibited
Effect of site investigation activities and/or personnel (e.g. disturbance) on habitats and vegetation	Potentially significant on previously undisturbed areas	• Use of ATVs and other vehicles to be restricted to existing roadways (where possible)
Effect of site investigation activities on wildlife (i.e. noise or disturbances)	Potentially significant on sites where wildlife was noted	• Avoid fish or wildlife interaction during site activities • Activities in undisturbed tundra to be minimized
Effect of camp operations on habitats, vegetation, wildlife and heritage resources	Potentially significant in previously undisturbed areas and areas where wildlife was noted	• Site camp will be housed in an existing DEW Line facility away form the undisturbed tundra. • Camp storage areas will be located on previously disturbed areas and at least 30 m from the nearest water body or drainage course. • Store camp waste (i.e. kitchen) in animal proof containers to prevent scavenging by wildlife • Dispose of domestic garbage and sewage in such a manner that waste is removed from contact with the environment
Use of local services and northern residents during implementation of site investigation activities	Positive impact on northern socio-economic development	• Maximize employment and business opportunities in the North

HERITAGE RESOURCES

.1 All site personnel are prohibited from knowingly disturbing any archaeological or other heritage site or collecting any artefacts. Removing artefacts is a criminal offence.

.2 In the event of finding heritage resources:

- .1 Do NOT remove any artefacts or other associated objects from the site unless their integrity is threatened in any way.
- .2 Mark the site's visible boundaries and avoid the area
- .3 Report the discovery of the site to the appropriate regulatory agency.
- .4 Document the discovery.

Appendix E
Environmental Studies Associated with the Project

APPENDIX E:
ENVIRONMENTAL STUDIES ASSOCIATED WITH THE PROJECT

The following is a list of relevant past reports prepared as part of the DEW Line Cleanup Project or on work conducted specifically at the Lady Franklin Point (PIN-3) DEW Line Site.

Environmental Sciences Group (ESG 1990). North Warning System Preliminary Environmental Study. Prepared by the Environmental Sciences Group for the Director North Warning Systems Office, Department of National Defence, 1990.

Environmental Sciences Group (ESG 1991). North Warning System Environmental Study, Volumes One to Three. Prepared by the Environmental Sciences Group for the Director North Warning Systems Office, Department of National Defence, 1991.

Environmental Sciences Group (ESG 1993). The Environmental Impact of the DEW Line on the Canadian Arctic, Volumes One and Two. Prepared by the Environmental Sciences Group for the Director General Environment, Department of National Defence, 1993.

Environmental Sciences Group (ESG 2000a). An Environmental Investigation – Lady Franklin Point (PIN-3) Fire. Prepared by the Environmental Sciences Group for the Canadian Forces Fire Marshal's Office, Department of National Defence, 2000.

Environmental Sciences Group (ESG 2000b). Letter Report Summarizing March and May Emergency Clean-up Work at PIN-3. Prepared by the Environmental Sciences Group for North Warning System Office, June 6 2000,

Environmental Sciences Group (ESG 2001). Results and Recommendations from the Environmental Investigation and Emergency Clean Up of the Lady Franklin Point (PIN-3) Fire. Prepared by the Environmental Sciences Group for North Warning System Office. (draft copy).

UMA Engineering Ltd. (UMA 1991). Environmental Clean-up Study of 21 DEW Line Sites in Canada. Volume 10, PIN-3, Lady Franklin Point, NWT.

UMA Engineering Ltd. (UMA 1994a) in association with Sheppard Green Engineering and Associates Ltd. and Jacques Whitford Environment Ltd. Design and Cost Estimating of the Clean Up of 21 DEW Line Sites. 95% Design Submission. Prepared for the Department of National Defence, December 1994.

UMA Engineering Ltd. (UMA 1994b) in association with Sheppard Green Engineering and Associates Ltd. and Jacques Whitford Environment Ltd. Design and Cost Estimating of the Clean Up of 21 DEW Line Sites. 95% Design Submission Construction Specifications. Prepared for the Department of National Defence, December 1994.

UMA Engineering Ltd. (UMA 1994c) in association with Sheppard Green Engineering and Associates Ltd. and Jacques Whitford Environment Ltd. Design and Cost Estimating of the Clean Up of 21 DEW Line Sites. 95% Design Submission Construction Cost Estimate. Prepared for the Department of National Defence, December 1994.

UMA Engineering Ltd. (UMA 1999). Landfill Monitoring Program – Nunavut DEW Line Sites. In preparation by UMA Engineering Ltd. for the Department of National Defence.

University of British Columbia/Environmental Sciences Group (UBC/ESG 1997). Polychlorinated Biphenyl (PCB) Non-Remediation Waste: Old Paints Containing PCBs in the Demolition Waste Stream. Prepared for the Director General Environment, February 1997.

Water and Earth Science Associates Ltd. (WESA 2000). Emergency Environmental Cleanup PIN-3 Radar Site, Territory of Nunavut – Design. Prepared by Water and Earth Science Associates Ltd. for Defence Construction Canada, July 2000.