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EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

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

ADMINISTRATIVE INFORMATION

1. Environment Manager: Scott Hamilton Tel: 613-998-4583 Fax: 613-998-1061 E-mail: HAMILTSC@dcc-cdc.gc.ca

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

3. Does the applicant hold the necessary property rights?

The former CAM-2 DEW Line site is located on a DND reserve on federal Crown lands under the administrative control of Indian and Northern Affairs Canada. A Land Use Permit 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
   [ ] Annual
   [✓] Multi Year:
   If Multi-Year indicate proposed schedule of on site activities
   Start: July 2003 Completion: October 2006

CAMP CLASSIFICATION

6. Type of Camp
   [ ] Mobile (self-propelled)
   [ ] Temporary
   [✓] Seasonally Occupied: summer months only
   [ ] 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?

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The camp will be able to accommodate up to 50 people, with an average of 35 people on site at a time. Peak time for maximum number of people on site is mid-July to the end of August.

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, which was used from 1955 to 1993 to provide radar surveillance of the northern approaches to the North American air space. This now inactive chain of radar stations, at approximately 70 degrees latitude, stretches several thousand kilometres across the breadth of the Arctic. The DEW Line originally consisted of 42 sites in Canada, but was reduced to half of this number in 1963. The 21 sites decommissioned in 1963 are now the responsibility of the Department of Indian Affairs and Northern Development. The remaining 21 sites are the responsibility of the Department of National Defence.

In March 1985, Canada and the United States agreed to moderize the North American Air Defence System by closing the 21 remaining DND DEW Line sites and building the North Warning System (NWS). The DEW Line Clean Up (DLCU) focuses on closing out the former DEW Line sites, including the remediation of chemically contaminated soils, the stabilization of landfill areas and the demolition/disposal of surplus infrastructure and debris. A monitoring program will be carried out after the clean up has been completed.

CAMP LOCATION

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

Please see Appendix I for a description of the biogeographical and geomorphological features, and water bodies.

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 and/or associated storage areas are to be located in areas of previous disturbance to minimize damage to previously undisturbed areas. The exact location of the camp will not be available until the contract has been awarded.

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, but has not yet been received.

12. Closest Communities (distance in km):

The closest communities are Gjoa Haven approximately 80 km to the east and Cambridge Bay, approximately 325 km to the west.

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

A community meeting is being planned for March 2003 in Gjoa Haven to discuss the clean up work at CAM-2. The meeting will include an information session and a question and answer period.

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?

See Appendix I for a summary of the potential project impacts.

PURPOSE OF THE CAMP

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

Please see Appendix V.

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

A more detailed list of spill kit items can be available after award of the clean up contract.

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

A variety of fuels and other hazardous materials may be used at the CAM-2 site during clean up. The greatest volumes will likely involve Arctic diesel fuel. Other substances such as acids, solvents, lubricants, hydraulic fluid, antifreeze, fuel additives and engine coolants also pose potential environmental and safety hazards. As chemicals are usually stored and transferred in barrels of 205 litres or smaller, potential spill quantities are small.

Material Safety Data Sheets will be made available by the Contractor, after award of the contract. The Contractor is required to comply with the requirements of Workplace Hazardous Materials Information System (WHMIS), which includes the provision of MSDS information.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Please see Drawing 101 in Appendix III for the location of the existing water supply lake at CAM-2.

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

☐ Domestic Use: 12,000 L/day (340 L/day/person). Water Source: water supply lake
☐ Drilling Units: n/a Water Source: _____
☐ Other: 18,000 L/day – Contractor Use Water Source: water supply lake

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

Water will be pumped into a truck equipped with a holding tank from the water supply lake and transferred to a tank at the camp area. Water withdrawal rates are not to exceed 10 percent of the existing stream flow or 10 percent of the total water body volume. All water intake hose will be 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?

Drinking water will be monitored on a monthly basis for potability parameters, which typically include: chlorine, sodium, potassium, magnesium, calcium, iron, manganese, conductivity, hardness, nitrate, nitrite, sulphate, pH, total coliforms, and E. Coli.

30. Will drinking water be treated? How?

If required, drinking water will be treated in accordance with the Health Canada Guidelines for Canadian Drinking Water Quality. Iodine, chlorination and/or thermal heat treatment are common on-site drinking water treatments.

31. Will water be stored on site?

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

WASTE TREATMENT AND DISPOSAL

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

☐ Camp Sewage (blackwater)
Sewage will be discharged into a 2-cell lagoon with the effluent tested prior to discharge. The remaining settled solids will be buried on-site. The lagoon will be located a minimum of 100 metres away from the camp and any natural drainage course or water body and 450 metres away from any water body that supports aquatic life.

☐ Camp Greywater
Greywater from camp operations will be discharged to a pit 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 incinerated and the residue will be buried in an on-site landfill.

☐ Bulky Items/Scrap Metal
All excess fuels, camp equipment and facilities will be removed from the site after the completion of the clean up activities.

☐ Waste Oil/Hazardous Waste
It is not anticipated that the clean up activities will generate any hazardous wastes. Hazardous wastes already existing at the site will be dealt with according to the Environmental Protection Plan in Appendix II.

☐ Empty Barrels/Fuel Drums
Empty barrels and fuel drums will be disposed of according to the DEW Line Clean Up Barrel Protocol, which is in Appendix IV.

☐ Other:

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

Domestic, non-hazardous solids waste will be incinerated in an enclosed container, and the residues will be disposed of in an on-site landfill. The container will be located at least 100 metres away from the camp, any site facilities, natural water courses or water bodies. A fire extinguisher will be provided at the incineration site.

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 disposed on in an on-site landfill.

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?

Leachate monitoring is conducted as part of the Landfill Monitoring Plan, which is updated upon completion of the clean up and continues for a period of 25 years.

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?

The water supply and treatment systems have been used during the cleanup of 8 DEW Line sites, all of which are completed. No outstanding problems were discovered during the clean up of these sites. Contingency plans for fuel and hazardous material spills, wildlife encounters and discovery of heritage resources are provided in the Environmental Protection Plan in Appendix II and the Contingency Plan in Appendix V.

ABANDONMENT AND RESTORATION

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

The aim of the DEW Line Clean Up Project is to decommission those facilities used by the former DEW Line which have been declared surplus to the requirements of the new North Warning System and to restore the sites to an environmentally sound condition. Environmental restoration includes the setting of remediation objectives that are designed to preclude the continued migration of contamination (and hence biomagnification) into the Arctic ecosystem/ food chain. To accomplish this, remediation will include:

- The excavation of soils in cases where parameters exceed those that have been set for the project (i.e., believed to cause significant input into the lower levels of the food chain, for example, higher plants and detritus); and,
- The remediation of landfills which may serve as a source of water contamination and may enter the lower levels of the marine food chain (i.e., algae).

Site decommissioning activities, when the clean up is completed, will involve the demobilization of all contractor equipment, camp infrastructure (if used), and materials no longer required at the site. The requirement for the contractor to undertake these decommissioning activities will be 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 information has been collected as part of this project. Please see Appendix I for the bibliography. 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.