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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: _Indian and Northern Affairs Canada_ Licence No: _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: **_Jared Buchko (Public Works & Government Services Canada)**
   Tel: **_780-497-3886_** Fax: **_780-497-3842_** E-mail:**_jared.buchko@pwgsc.gc.ca_**

2. Project Manager: **_Lou Spagnuolo (Indian & Northern Affairs Canada)**
   Tel: **_867-979-7936__** Fax: **_867-979-6445_** E-mail:**_spagnuolol@inac.gc.ca__**

3. Does the applicant hold the necessary property rights? **Yes**

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? **No**
   If so, please provide letter of authorization.

5. Duration of the Project
   - [ ] Annual
   - [X] Multi Year:
     If Multi-Year indicate proposed schedule of on site activities
     Start: **__June, 2006__** Completion: **_December, 2007__**

CAMP CLASSIFICATION

6. Type of Camp
   - [ ] Mobile (self-propelled)
   - [X] Temporary
   - [X] Seasonally Occupied: **_June 15-September 15__**
   - [ ] 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 occupied for a maximum of 90 days per year by an average of 20 people (maximum of 25).

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

Radio Island is located south of Resolution Island, which is located at the south eastern tip of Baffin Island (see Appendix A – Site Maps). It is situated at Latitude 61° 18' N and Longitude 64° 52' W. The nearest community is the City of Iqaluit, located approximately 340km northwest of the site. From 1929 to 1961, the Canadian Department of Transport operated a navigational aid and weather station at the site. The site consists of two standing buildings, the remains of three other buildings, two helipads, and a beacon tower. Hazardous and non-hazardous debris is scattered throughout the site.

(See Appendix B – Remedial Action Plan)

CAMP LOCATION

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

The island, which is composed of Canadian Shield bedrock, is approximately 1 km long and 0.5 km wide. The terrain consists of tilted bedrock with parallel rock ridges, knolls and gullies. The only soils identified at the site are located in the gullies and valleys formed by the bedrock. Surface drainage at the site flows along the gullies to the ocean.

The site has a low arctic ecoclimate, marked by short cold summers and long winters. Meteorological data collected at Iqaluit between 1946 and 1990, identify mean daily temperatures ranging from –26.8°C in February to +7.7°C in July. The average mean daily temperature over the year is –9.5°C. An average annual precipitation of 424.1mm falls in this area, 60% of which is in the form of snow.

The flora in this region is limited to the gullies and valleys where there is soil present. Mosses were found throughout the site where soils were present. Marine mammals, such as walrus, seal, whale and polar bears are common to this region. Shorebirds and waterfowl are also found in this region.

The camp will be situated adjacent to the Beach Hut, the original camp accommodations (see Appendix A – Site Maps). The exact final location will be provided following award of the Contract (see Appendix L – Supplemental Information).

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 situated in a pre-disturbed area; adjacent to the original Beach Hut accommodations (see Appendix A – Site Maps). Additional details regarding type and final location of camp facilities will be provided following award of the Contract and prior to mobilization to site (see Appendix L – Supplemental Information).

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

[X] Crown Lands Permit Number (s)/Expiry Date: ___see Appendix 3___

[ ] Commissioners Lands Permit Number (s)/Expiry Date: _____

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

12. Closest Communities (distance in km):

The City of Iqaluit and the community of Kimmirut are the closest communities, approximately 340 km from Radio Island.

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

Community Consultations were held in Kimmirut on December 12, 2005 and Iqaluit on December 13, 2005 (see Appendix I – Community Consultation Q&A). Additional consultations in Kimmirut and Iqaluit are planned for April/May, following award of the Contract, to discuss employment and sub-contracting opportunities.

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?

No, it is anticipated that the activities will have a positive impact on traditional water use and local fish and wildlife habitats (see Appendix C – Environmental Screening).

PURPOSE OF THE CAMP

15.
- ○ Mining
- ○ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- ⊘ Other __Contaminated Site Remediation__ (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: _____

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

DRILLING INFORMATION

18. Drilling Activities
- ○ Land Based drilling
- ○ Drilling on ice

19. Describe what will be done with drill cuttings?

20. Describe what will be done with drill water?

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.

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

SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.

A Preliminary Contingency Plan (see Appendix H) has been developed for the site, however, the successful Contractor will be required to provide a Site Specific Contingency Plan based on proposal submitted prior to mobilization to Radio Island (see Appendix L – Supplemental Information).

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

To be provided following award of the Contract and prior to mobilization to site (see Appendix L – Supplemental Information).

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

Preliminary estimates of fuel requirements are listed below, exact quantities and storage location will be provided following Contract award and prior to mobilization (see Appendix L – Supplemental Information).

All liquid fuels will be stored in barrels on pallets within a containment area surrounded by a 0.5 m berm and lined with hydrocarbon resistant material. Refuelling activities will occur directly from the barrels in the containment area into the respective vehicle. The containment area will be located on flat, even ground at a distance of no less than 30 m away from the camp and any natural drainage area or water body.

Gasoline: Approximately 13,000 L stored in 65 - 205 L barrels;
Diesel: Approximately 61,500 L stored in 300 - 205 L barrels; and
Oxy-Acetylene Bottles: Approximately 20 – 50 lb tanks

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

All potable water will be supplied through commercially available bottled water. The majority of non-potable water will be taken from the man-made pond adjacent to the Main House. This may be augmented by water pumped, and transported by helicopter, from Lower Lake located on Resolution Island (note: water usage for this lake will not exceed Resolution Island licence NWB5RES0308).

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

- ⦸ Domestic Use: **_150 L /day/person_** Water Source: **_unnamed man-made pond _**
- ○ Drilling Units: _____ Water Source: _____
- ○ Other: _____ 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 will be pumped to the camp via a small horsepower pump and water intake pipe placed overland and equipped with a small mesh screen. The pump will be placed at least 30 m from water bodies and a spill kit will be sited near the pump.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

Due to lack of water onsite and size of camp, drinking water will be provided through the use of commercially supplied bottled water.

30. Will drinking water be treated? How?

n/a

31. Will water be stored on site?

Non-potable water may be temporarily stored in barrels or tanks on-site, however, no reservoir or other more permanent structure will be constructed.

WASTE TREATMENT AND DISPOSAL

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

- ⦸ Camp Sewage (blackwater)

All camp sewage will be collected and back hauled for disposal off-site. The use of an appropriate technology (such as a compostable toilet) will be used to reduce volume, wherever possible.*

- ⦸ Camp Greywater

All camp greywater will be treated using a portable treatment unit, proven for cold climates. Following confirmation that discharge results meet criteria in the Guidelines for the Discharge of Treated Municipal Wastewater the water will be released to land.*

- ⦸ Solid Waste

Combustible solid waste will be incinerated on-site using an approved incinerator unit. All non-combustible solid waste will be disposed of off-site.*

⊘ Bulky Items/Scrap Metal

All scrap metal and bulky items will be disposed of off-site.

⊘ Waste Oil/Hazardous Waste

All waste oil and hazardous waste will be consolidated and shipped off-site, in accordance to the Transportation of Dangerous Goods Act, for disposal at an approved southern facility.

⊘ Empty Barrels/Fuel Drums

Empty barrels will be collected, crushed and disposed of off-site.

○ Other:

***Note: Specifications for technology used in these applications will be provided following Contract award and prior to mobilization (see Appendix L – Supplemental Information).**

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

Combustible solid waste will be the only waste incinerated onsite. All remaining waste will be shipped offsite for disposal. Specifications for the type of incinerator used will be provided following Contract award and prior to mobilization (see Appendix L – Supplemental Information).

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

All hazardous waste will be shipped to an approved southern facility. All non-combustible non-hazardous waste, estimated at approximately 100 m^3, will be shipped off-site for disposal. Details regarding the location of the disposal facility will be provided following Contract award and prior to mobilization (see Appendix L – Supplemental Information).

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?

All wastewater treatment and waste incineration equipment will be proven for use in the north. Specifications for the type of equipment used, and contingency plans in place, will be provided following Contract award and prior to mobilization (see Appendix L – Supplemental Information).

ABANDONMENT AND RESTORATION

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

Following the completion of the remediation activities the temporary camp facilities will be removed from the site. No long-term monitoring will be initiated since all non-hazardous, hazardous and contaminated soil will be removed from the site (see Appendix B – Remedial Action Plan).

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:

Jacques Whitford, 2005 - Environmental Screening (see Appendix C);
Jacques Whitford, 2006 - Human Health & Ecological Risk Assessment (see Appendix D);
Earth Tech, 2001 - Environmental Site Delineation and Material Inventory (see Appendix E);
ESG, 1996 - An Environmental Assessment of Radio Island, NWT (see Appendix F);
SENES, 2003 - Ecological Risk Evaluation for Radio Island (see Appendix J);
SENES, 2003 - Human Health Screening Level Risk Assessment (see Appendix K); and
Archaeological Assessment Report (see Appendix L – Supplemental Information)

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
- ⦸ 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.