Appendix A:

Exploration/Remote Camp Supplementary Questionnaire

EXPLORATION/ REMOTE CAMP
SUPPLEMENTARY QUESTIONNAIRE

Applicant: _*Indian and Northern Affairs Canada*_ **Licence No:** _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: *Kevin McKenna (Indian and Northern Affairs Canada (INAC))*
   Tel: *867-975-4731* Fax: *867-975-4736* E-mail: *kevin.mckenna@inac.gc.ca*

2. Project Manager: *Kevin McKenna (Indian and Northern Affairs Canada (INAC))*
   Tel: *867-975-4731* Fax: *867-975-4736* E-mail: *kevin.mckenna@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)? If so, please provide letter of authorization. ***No***

5. Duration of the Project

   ☐ One year or less Start and completion dates: _____
   ☑ Multi Year:

   If Multi-Year indicate proposed schedule of on site activities
   Start: *July, 2010* Completion: *September, 2030*

CAMP CLASSIFICATION

6. Type of Camp

   ☐ Mobile (self-propelled)
   ☑ Temporary
   ☑ Seasonally Occupied: *July 1 - September 1*
   ☐ Permanent
   ☐ Other: _____

7. What is the design, maximum and expected average population of the camp?

The camp will be occupied for a maximum of 30 days per year by a maximum of 10 people and an average of 6 people at a time.

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

Resolution Island BAF-5 is located at the south-eastern tip of Baffin Island, approximately 320km southeast of Iqaluit and just outside Frobisher Bay. It was part of the Pole Vault Line, used to transmit intercepted northern signals to southern military stations. This site was operated from 1953 to 1972 when the site was vacated by the U.S. Air Force. The site occupies an area of approximately three square km, and while in operation, more than 200 people were stationed there. More than 20 buildings, eight dump sites, numerous barrels, and large amounts of visible debris were left on the site.

Subsequent to several years of assessment work, the site was under active remediation between 1997 and 2006 when remediation was completed according to the NWB approved Resolution Island Remediation and Clean-up Plan 2003. The remediation off site disposal of hazardous wastes, construction of a Tier II landfill, three (3) non-hazardous landfills and three (3) Interceptor Barriers to keep any residual contamination from entering the ocean.

In 2006 a comprehensive 25 year long-term monitoring plan was initiated. Monitoring has been conducted at the site annually according to the Resolution Island Monitoring Program Plan approved by the NWB in 2004. This work has been conducted by the scientific advisors for the Remediation Project. This will be the fifth year of long term monitoring at the site, marking the end of the first phase of long term monitoring. A comprehensive Five Year Summary Report will be produced this year and distributed to regulatory, Regional Inuit Association, and government representatives. This report will include recommendations for future monitoring site closure.

CAMP LOCATION

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

The Camp is located at the Resolution Upper Site atop a 350 m cliff, about 450 m from the ocean, and 3.5 km from a fresh water lake called Old Water Lake, the non-potable water source.

The Resolution Island site is located out the mouth of Frobisher Bay, on the southeast coast of Baffin Island, in the Territory of Nunavut. It is situated at Latitude 61°35' N and Longitude 64°38' W. The nearest community is the Hamlet of Kimmirut, located approximately 300 km west northwest of the site.

The landscape is characterized by a rugged coast line including steep cliffs and sparsely vegetated areas between bedrock outcrops, surface soils are poorly sorted glacial till. Continuous permafrost, with low ice content, exists at the site at an average depth of 0.5m. Surface drainage at the site flows to the west, toward Davis Strait.

The climate at Resolution Island is described as a humid cold arctic climate with short summers and long winters. Annual precipitation measured at Resolution Island is approximately 313 mm/a at 40 m elevation and 404 mm/a at 370 m.

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 site was selected by the Resolution Island Remediation Project Management Team which included input from the on-site engineer, scientific advisors, site contractor, and INAC. The camp site was previously used as the training center and emergency shelter during active remediation until 2006. Previously the main building was part of the military station. See Appendix B for aerial photograph and Layout Map.

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

- ☑ Crown Lands — Permit Number (s)/Expiry Date: ____*N/A*_____
- ☐ Commissioners Lands — Permit Number (s)/Expiry Date: _____
- ☐ Inuit Owned Lands — Permit Number (s)/Expiry Date: _____

All site Long Term Monitoring activities will take place on Crown Lands.

12. Closest Communities (direction and distance in km):

Iqaluit is approximately 320 km northwest of Resolution Island; Kimmirut is approximately 300 km northwest west of Resolution Island.

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

Amarok HTA will be contacted to contract two (2) local wildlife monitors for the duration of monitoring activities.

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 no adverse impact on traditional water use and local fish and wildlife habitats.

PURPOSE OF THE CAMP

15.
- ☐ Mining (includes exploration drilling)
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- ☑ Other ___*Contaminated Site Long Term Monitoring*___(Omit questions # 16 to 22)

16. Activities (check all applicable) ***Not Applicable (N/A)***

- ☐ 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 (exploration focus): ***Not Applicable (N/A)***
    - ☐ Lead Zinc
    - ☐ Diamond
    - ☐ Gold
    - ☐ Uranium
    - ☐ Other: _____

DRILLING INFORMATION

18. Drilling Activities ***Not Applicable (N/A)***
    - ☐ Land Based drilling
    - ☐ Drilling on ice

19. Describe what will be done with drill cuttings? ***Not Applicable (N/A)***
20. Describe what will be done with drill water? ***Not Applicable (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. ***Not Applicable (N/A)***
22. Will any core testing be done on site? Describe. ***Not Applicable (N/A)***

SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

    A revised Spill Emergency Plan (2001) and additional amendment (2002) was approved by NWB for the site. Development of an updated Spill Contingency Plan is in process and will be submitted to NWB for approval upon delivery to INAC.

    The successful Contractor will also provide a Site Specific Contingency Plan prior to mobilization to site.

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

    A variety of spill containment materials were left on site after the remediation efforts were completed at Resolution Island. These include sorbent booms, bags of sphagnum sorbent, rolls of geotextile and liner materials, as well as a Kubota 310 loader.

    Two drum type spill kits will be located adjacent to the fuel containment area. Each will be capable of absorbing 174L of liquid hydrocarbons. In addition, a smaller spill kit will be located by the pump used at the water source at the generator building, and at the area ATVs are refueled.

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

Estimates of the quantities of fuels on site are:

Gasoline: Approximately 4,000 L stored in 20 – 205 L barrels;

Diesel: Approximately 60,000 L stored in 3 registered tank systems – one of 8 x 32,000L double walled tanks at the lower site, one 32,000 L double walled tank at the upper site helipad, and a third 60,000 L single walled vertical above ground tank with lined berm secondary containment near camp.

Other fuels: Small quantities of hydraulic and motor oil (less than 205L), propane (less than 50kg), lubricants (less than 50 L)

Chemicals: Two types of fertilizers: 1 x 20l bucket of Diammonium Phosphate (DAP) and 6 x 20kg bags Urea are present at the site; they are used for landfarm bioremediation research. They are stored in their original bags inside plastic 'action packer' containers which are in turn stored inside the monitoring camp seacan.

Handling, storage and use of all fuels from the storage tanks will be in accordance to the CCME, 2003: Environmental Code of Practice for Aboveground Storage Tank (AST) and Underground Storage Tank (UST) Systems.

The MSDS sheets for all fuel and chemicals on site are provided in Appendix C. Workers will comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding employee training, use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Material Safety Data Sheets (MSDS), as required by WHMIS

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The potential source of water for domestic camp uses is the nearby Old Water Lake located midway between the upper site and (3. 5 Km from the camp), along the road.

27. Estimated water use (in cubic meters/day):

☑ Domestic Use: ***115 L /day/person*** Water Source: ***Old Water Lake***
☐ Drilling: _____ 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? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

Non-potable water will be hauled by trailer and ATV to the camp site from the nearby lake and stored on-site for usage. Water will be pumped into a small steel tank using a small horsepower pump and water intake pipe equipped with a small (< 2mm) mesh screen.

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

Water samples will be taken from the nearby Old Water Lake and sent to a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory for analysis. The samples will be analysed for GCDWQ criteria. The water in this lake has been tested for water quality and used as a source in past years. Bottled water will be supplied to the site until the tests confirm that the water is safe for drinking.

30. Will drinking water be treated? How?

If the on-site water in its current state does not meet the GCDWQ, it will be treated to meet the guidelines if possible, or alternatively, the use of bottled water brought to site will be continued. The contractor will determine the appropriate equipment, supplies and materials required to treat the water in accordance with the Health Canada GCDWQ.

31. Will water be stored on site?

Non-potable water may be temporarily stored in the monitoring camp holding tank; 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)

The camp sewage will consist primarily of human waste from toilet use with an estimated flow of 40 L/day/person. The sewage will be directed to the lagoon constructed when the Monitoring Camp was set up in 2006. See Appendix B.

The maximum fluid depth in the lagoon will not exceed one metre and it has the capacity to hold sewage generation for the monitoring season. The location of the lagoon is approximately 450 m from the any water body supporting aquatic life and is downwind of the monitoring camp (based on the prevailing wind direction). After site monitoring, the lagoon will be appropriately decommissioned following all applicable regulations and guidelines for sewage lagoon decommissioning in Nunavut.

☑ Camp Greywater

The camp greywater will consist primarily of wastewater generated from the kitchen and bathroom sinks and showers. The estimated flow from this wastewater stream is 75 L/day/person. This waste will be disposed together with the sewage.

☑ Solid Waste

Combustible non-hazardous wastes will be incinerated on-site in an enclosed container. The non-combustible, non-hazardous solid waste generated from the camp activities, will be backhauled for disposal in the Iqaluit municipal landfill, or will be stored at site and disposed of off-site at a southern

facility during the sealift, currently scheduled for September 2011. Hazardous camp wastes will be appropriately disposed with the remaining hazardous wastes off-site.

☐ Bulky Items/Scrap Metal

N/A

☑ 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

N/A

☐ Other:

N/A

---

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

Combustible and food wastes will be incinerated on-site in an enclosed container

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 will be backhauled for disposal in the Iqaluit municipal landfill, or will be stored at site and disposed of off-site at a southern facility during the sealift, currently scheduled for September 2011.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all 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 waste treatment facilities will be proven for use in the north. Specifications for the waste facilities will be provided in the general contracting specifications and will be forwarded following contract award.

ABANDONMENT AND RESTORATION

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

Remediation of the site was completed in 2006. Long-Term Monitoring (LTM) activities began in 2006 as well. This (2010) will be the fifth (5th) year of LTM, after which a detailed Five Year Review and Summary Report detailing the results of the first phase of LTM will be produced. This Five Year Review Summary Report will address future plans for both LTM of the site and further plans for final abandonment and closure of the Monitoring Camp. The Five Year Review and Summary Report will be distributed to NWB upon delivery scheduled for March 31, 2011.

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: __

REGULATORY INFORMATION

40. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ☑ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ☑ NWNSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ☑ *Northwest Territories Waters Regulations, 1993*
- ☑ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ☑ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ☑ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ☑ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ☑ NWTWB - Guidelines for Contingency Planning
- ☑ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ☑ *Fisheries Act, RS 1985* - s.34, 35, 36 and 37
- ☑ DFO - Freshwater Intake End of Pipe Fish Screen Guideline

- ☑ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ☑ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ☑ Public Health Act - Camp Sanitation Regulations
- ☑ Public Health Act - Water Supply Regulations
- ☑ *Territorial Lands Act* and *Territorial Land Use Regulations*; Updated 2000