Section 2

Exploration / Remote Camp Supplementary Questionnaire

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: *Aboriginal Affairs and Northern Development Canada (AANDC)* **Licence No:** _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: *Jessie Hoyt, Public Works & Government Services Canada (PWGSC)*
   Tel: *780-497-3786* Fax: *780-497-3842* E-mail: *jessie.hoyt@pwgsc.gc.ca*

2. Project Manager: *Dele Morakinyo, AANDC*
   Tel: *819-934-9224* Fax: *819-934-9229* E-mail: *dele.morakinyo@aandc-aadnc.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, 2014* Completion: *October, 2017*

CAMP CLASSIFICATION

6. Type of Camp

   ☐ Mobile (self-propelled)
   ☑ Temporary
   ☑ Seasonally Occupied: *June 15-September 30*
   ☐ Permanent
   ☐ Other:_____

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

   The camp will be occupied for a maximum of 75 days per year by an average of 30-40 people at a time.

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

Nottingham Island site is located at approximately 63^{o} 06' 43" N latitude and 77^{o} 56' 19" W longitude. The nearest communities, to the site, are Ivujivik and Salluit (both in Quebec), and Cape Dorset (Nunavut). The site is about 140 km south of Cape Dorset and about 80 km north of Ivujivik.

The Department of Transport (DOT) built a radio/navigational aid station on Nottingham Island in 1927 to provide accurate data for the opening of the Hudson Straight to shipping. The station was abandoned in 1970. Throughout the period of use by DOT, there was no reserve in place for the site.

Nottingham Island falls within a zone of equal use and occupancy between the Inuit of Nunavut and the Inuit of Northern Quebec (Nunavik). Consequently both the Nunavik Inuit Land Claims Agreement (NILCA) article 27 and the Nunavut Land Claims Agreement (NLCA) article 40 are applicable to this project.

Three (3) environmental site assessment (ESA) studies were carried out, to date, on the Nottingham Island site:

- *Earth Tech (2008) - Phase I/II ESA Remote Sites in Nunavut Cape Dorset 2 Nottingham Island);*
- *WESA (2011) - Comprehensive Phase II ESA, SB029 - Cape Dorset 2 (Nottingham Island); and*
- *EBA (2013) - Phase III ESA, Nottingham Island, Nunavut.*

The ESA's identified the following environmental issues at Nottingham:

- *17 buildings which are, generally, in disrepair with collapsed roofs, missing walls and collapsed floors. Other buildings have some of their portions constructed with asbestos containing materials.*
- *A number of antennae both standing and collapsed;*
- *A large amount of debris scattered around the site - empty fuel drums, fuel lines, scrap metal, wood, tin cans, machine parts, bricks, electrical wire, batteries, radio equipment and concrete;*
- *Contaminated Soils (mainly metals and PHCs)*
- *Two large (empty) above-ground storage tanks (AST);*

CAMP LOCATION

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

The preferred location proposed for the site camp is within minimum coordinates (63° 6' 39" N, 77° 55' 46 W) and maximum coordinates (63° 6' 43" N, 77° 56' 21" W) as indicated on the site maps in Appendix F or Fig G-1 of Appendix C. This camp location is proposed after due considerations have been giving to the biogeographical and geomorphological features of the site, and water bodies. The camp location is in an area with minimal to no vegetation which will result in minimal vegetation disturbance when setting up the camp and grading of the camp area. The camp location is also at safe distance from water bodies on the site. No nests or animal activity were noted in the area during the site assessments. In the vicinity of the selected camp location there is good drainage and minimal to no tundra ponding.

The camp location suggested is tentative and will be reassessed by the successful contractor during the pre-mobilization visit to the site about May 2014. If there is change in camp location; the new coordinates will be communicated to NIRB & NWB prior to the commencement of the remediation project.

More details:

- *Appendix B:- Nottingham Island Phase III Environmental Site Assessment Report;*
- *Appendix C:- Nottingham Island Remedial Action Plan (RAP);*
- *Appendix F:- Site Maps; and*
- *Appendix G:- Environmental (Impact) Assessment (Screening) Report.*

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 preferred camp site is on Crown Land. The location has been chosen because it is removed from the main station and the distance will prevent site contaminants getting to the camp dwellers during construction.

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

☑	Crown Lands	Permit Number (s)/Expiry Date: _____*In Process*____
☐	Commissioners Lands	Permit Number (s)/Expiry Date: _____
☐	Inuit Owned Lands	Permit Number (s)/Expiry Date: _____

All site remediation activities will take place on Crown Land. There will be no activities on Inuit Owned Lands (IOL).

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

Cape Dorset ~ 140 km north of site;
Ivujivik ~ 80 km south; and
Salluit ~ 80 to 100 km south of the site

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

Yes. Community meetings were held on January 28 & 29, 2013 in Cape Dorset, Ivujivik, and Salluit, the three (3) near-by communities to Nottingham Island. The meetings were well advertised in the towns, on the radio and through posters posted at strategic places in the communities. The meetings were attended by Mayors, council members and the community members in each of the communities. The Crown representatives (AANDC and PWGSC) at the meetings presented the proposed RAP and satisfactorily answered questions raised by the attendees. There were no concerns presented during the meetings. A translator was engaged at each of the 3 meeting locations, and provided translation (in the dialect of each location) during the meetings. Additional consultation activities are planned as the project progresses.

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. An Environmental Impact Assessment (Screening) study was conducted to evaluate the potential impacts of the project. For the most part, the report concluded the project will have a net positive effect on the environment. Some potential adverse effects, identified, will be minimized or completely removed through the implementation of the proposed mitigation and monitoring plans and project design.

More Details – Appendix G – Environmental (Impact) Assessment (Screening) Report

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 Remediation*_____(Omit questions # 16 to 21)

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): *N/A*

- ☐ Lead Zinc
- ☐ Diamond
- ☐ Gold
- ☐ Uranium
- ☐ Other: _____

DRILLING INFORMATION

18. Drilling Activities *N/A*

- ☐ Land Based drilling
- ☐ Drilling on ice

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. 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 site specific Spill Contingency Plan has been developed for this site and included with this application as Appendix E. This plan was 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. The plan describes the procedures that will be adopted at Nottingham in the event fuel spills.

Any additional documentation developed prior to or during the construction relating to spill contingency , will be submitted to NWB at and when they are available.

See Appendix E – Site Specific Spill Contingency Plan

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

There will be at least two drum spill kits present at the Nottingham site each capable of absorbing 174 L of liquid hydrocarbons. Both kits will be located near the fuel containment area. A smaller spill kit will be

located by the pump used to transport non-potable water. Two standard spill packs, each capable of absorbing 40 L of liquid hydrocarbons will be available; a task crew will be accompanied by at least a spill pack each time they are working on the field.

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

Types and approximate quantities of fuels:
Gasoline: Approximately 1025 L stored in five 205 L barrels;
Diesel: Approximately 3075 L stored in fifteen 205 L barrels;
Oil: Approx. 40 L of hydraulic oil (two 20 L pails) and 40 L of motor oil (two 20 L pails);
Propane: Three 45 kg tanks; and
Grease: Approximately 20 tubes stored within two 4 kg cases.

Method of Storage & MSDS Sheets:

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. Refueling 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. Propane will be stored in 45 kg (100 lb) certified tanks near the kitchen tent.

Contractor will comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding employee training, use, handling, storage and disposal of hazardous materials, and regarding labeling and provision of Material Safety Data Sheets (MSDS), as required by WHMIS

Upon award of contract, the Contractor will provide more specific information on the types, quantities, and the MSDS sheets for all fuel and chemicals on site.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Water sources are water Lakes 1, 2 & 3 ***(see Appendix F).***

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

- ☑ Domestic Use: *150 L /day/person* _____ Water Source: *Water Lakes 1, 2 & 3*
- ☐ 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 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?

Water lakes 1, 2, & 3 were sampled and analyzed during the Phase III Environmental Site Assessment. The criteria for the Guidelines for Canadian Drinking Water Quality (CDWQ) (May 2008) were met for most parameters except for some metals and ion that showed exceedances. A detailed study of bacteria (faecal and total coliforms with E.coli) of the water sources (Lakes 1, 2 and 3) is required prior to using water from theses sources for drinking. Coliform testing will be conducted on a regular basis throughout the construction season and further testing will be carried out for the parameters that were exceeded. A potable water treatment system and polishing unit capable of bringing the raw water to drinking standard has been recommended by the RAP (Appendix C). Water bottles will be brought to the site for camp use until the water from the treatment meets the Canadian Drinking Water Quality. More details in Appendices B and C

30. Will drinking water be treated? How?

Drinking water treatment will only be required if the tested parameters do not meet the CDWQ guidelines.

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)

Two independently operated temporary lagoons will be installed. Each lagoon will have an individual capacity for 45 days of wastewater storage or one half of the duration of the construction season, whichever is less. Maximum fluid depth will not exceed one metre. The location of the lagoons will be a minimum of 30 m from the construction camp or other temporary facilities and drainage paths, a minimum of 30 m from water bodies supporting aquatic life and downwind of the construction camp (based on the prevailing wind direction). Discharge criteria will be as follows: 1) oil and grease – none visible, 2) pH – 6 to 9, 3) TSS – 180 mg/L, 4) BOD – 120 mg/L, 5) fecal coliforms – 10,000 CFU/dl.

After Site Remediation, the lagoons 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. This waste could be treated in the sewage lagoon or be directed to a discharge pit excavated a minimum 30 m from the camp, any natural drainage course, or water body. Upon completion of site activities the pit will be filled in and finished to grade.

☑ 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 (with the other non-hazardous wastes) at a southern facility.

☑ Bulky Items/Scrap Metal

All scrap metal and bulky items will be disposed off-site to a southern facility.

☑ 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 at a southern facility.

☐ Other:

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

Combustible solid waste will be the only solid waste incinerated on-site. Non-combustible solid wastes will be shipped offsite for disposal at a southern facility. Specifications for the type of incineration system to be used at the site will be provided by the successful contractor, following contract award. These details will be forward to NWB prior to mobilization to site.

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

All hazardous wastes generated during site / camp operations will be shipped, together with the existing hazardous wastes on the site, to an approved southern facility. Similarly, all non-combustible non-hazardous waste generated during site / camp operations will be shipped, together with the existing non-hazardous wastes on the site, to an approved southern facility

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 wastewater treatment and solid 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 to the site.

ABANDONMENT AND RESTORATION

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

After remediation, the temporary camp facilities will be removed from the site. The site will be stabilized and all wastes and materials, slated for off-site transport, will be removed and shipped off-site to southern facilities. The site will be fully regarded to ensure proper drainage throughout the site.

No landfill is planned to be constructed at Nottingham Island. Therefore there may not any need for long-term monitoring.

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: __*See list Below*_____

- *Earth Tech (2008) - Phase I/II ESA Remote Sites in Nunavut Cape Dorset 2 Nottingham Island) – also includes Archaeological Assessment report;*
- *WESA (2011) - Comprehensive Phase II ESA, SB029 - Cape Dorset 2 (Nottingham Island); and*
- *EBA (2013) - Phase III ESA, Nottingham Island, Nunavut.*
- *EBA (2013) - Environmental (Impact) Assessment (Screening) Report*
- *EBA (2013) – Remedial Action Plan (RAP)*

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