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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: ___Anne Hamilton_____Licence No: _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: _____Tel: _____ Fax: _____E-mail:_____

2. Project Manager: Anne Hamilton Tel: (204) 880-4799 Fax: (204) 474-7600 E-mail: anne_hamilton@umanitoba.ca

3. Does the applicant hold the necessary property rights?

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: _____
   X Multi Year:

   If Multi-Year indicate proposed schedule of on site activities
   Start: _July 31, 2009 Completion: August 31, 2010

CAMP CLASSIFICATION

6. Type of Camp

   ☐ Mobile (self-propelled)
   ☐ Temporary
   ☐ Seasonally Occupied: _____
   ☐ Permanent
   X Other: A temporary camp housing 4-5 people that is adjacent to an archaeological site (Tungatsivvik, borden number: KkDo-3). The camps will be occupied for 2-4 weeks in the summer while the archaeological site is excavated.

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

The maximum population of the camp will be 5 individuals. Structures to be erected for this project are limited to personal camping tents (a maximum of five), an equipment tent, and a main cook tent. These structures will be secured using ropes, rocks, and tent pegs.

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

The camp has been used before in 1984, 1990, 1991, 1992, 1994, 1998, and 1999. In each of these years short-term camps were set up adjacent to the Tungatsivvic archaeological site. Site activites were limited to basic daily living (i.e. sleeping, cooking, eating, and processing recovered artifacts). Impact to the areas was minimal since all equipment and refuse was removed when the camps were packed up upon completion of excavations at Tungatsivvik.

CAMP LOCATION

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

The camp will be set up on the eastern shore of Peterhead Inlet approximately 10 km from Iqaluit, in proximity to a known archaeological site, Tungatsivvik. Camp will be located on a slope lying between low bedrock hills. The area is heavily vegetated with grass moss and lichen covering most of the ground. I small freshwater stream flows nearby the camp (ammroximately 20-30 meters) to the ocean. The only time this stream will be accessed is to draw water for daily use (i.e. drinking, washing).

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 location of the camp site was chosen for its proximity to the Tungatsivvik site where I plan to conduct excavations this summer so that equipment and crew would not have to travel significant distances on a day-to-day basis in order to complete the project's tasks. The site has previously been used by archaeologists conducting excavations in 1984, 1990, 1991, 1992, 1994, 1998, and 1999.

The camps site is located on Crown Lands and a one-year Land Use Permit through INAC has been applied for. As a courtesy, I will contact Mr. John Amagoalik, the Director of Lands & Resources at the Qikiqtani Inuit Association of my project plans in 2009 even though the sites are on Crown Lands.

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

X	Crown Lands	Permit Number (s)/Expiry Date: _Applied_____
☐	Commissioners Lands	Permit Number (s)/Expiry Date: _____
☐	Inuit Owned Lands	Permit Number (s)/Expiry Date: _____

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

Iqaluit, approximately 10 km east.

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

Yes. Mr. John Amagoalik, the Director of Lands & Resources, Qikiqtani Inuit Association.

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 to both questions.

PURPOSE OF THE CAMP

15.
- ☐ Mining (includes exploration drilling)
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- X Other _ Archaeological survey and excavation, and camping while undertaking these activities.

16. Activities (check all applicable)

- ☐ Preliminary site visit
- ☐ Prospecting
- ☐ Geological mapping
- ☐ Geophysical survey
- ☐ Diamond drilling
- ☐ Reverse circulation drilling
- ☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- X Other: _ To conduct archaeological fieldwork.

17. Type of deposit (exploration focus):

- ☐ 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?

NOT APPLICABLE

20. Describe what will be done with drill water?

NOT APPLICABLE

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

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

NOT APPLICABLE

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.

See Question 25

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

An emergency fuel spill kit with absorbent materials and protective gloves will be kept at the camp near the fuel storage in the event of a spill.

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

Naphtha will be used for cooking and heat. Approximately 15 to 20 one gallon containers will be brought in for use. Four five-gallon jerry cans of gasoline will be used to power the generator. At the campsite, an in-site cache to securely store fuel will be established. This cache will be away from the day-to-day activities of the camp so that the fuel containers are not disturbed or displaced.

All fuel will be stored away from bodies of water. Likewise, transfer activities will be undertaken away from lakeshores, creeks, or rivers. The kind of fuel being used evaporates very quickly and should not pose an immediate threat to the surrounding area in the unlikely event of a spill or leak. Naphtha will be transferred to stove fuel containers via an appropriate funnel. The same transfer method will be used to transfer gasoline to the generator. Because of the small quantities of fuel being used and the restricted nature of transfer activities, the potential for a large scale spill is precluded.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The camp will be located 20-30 meters from a freshwater stream that flown into the ocean.

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

X Domestic Use: _20 liters Water Source: _Freshwater stream flowing near camp_
☐ 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:

Water will be gathered from the stream using refillable 5 liter plastic collapsible containers. There will be no formal or mechanized water intake system for this small, temporary camp.

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

Yes, we will evaluate the water quality using a water purification kit. Given the small size of our camp, I do not anticipate the quality of the water to fluctuate during the time we will be occupying the camp. As such, the water will likely only test be tested a few times throughout the duration of the project.

30. Will drinking water be treated? How?

If the water requires treatment a water purification system will be used consisting of dissolvable tablets that are available from most retailers selling camping equipment. We would also boil the water if it were deemed necessary to eliminate any bacterial contamination.

31. Will water be stored on site?

Yes, in 4-5 refillable 5-liter plastic collapsible containers.

WASTE TREATMENT AND DISPOSAL

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

X Camp Sewage (blackwater)

Latrines will be dug into the ground at the base camp to contain human waste and will be buried when no longer in use. Lime will be used to coat the pits to facilitate decomposition and limit contamination. Given the small number of people in the camp and its short occupation span, the overall quantities of blackwater will be negligible.

X Camp Greywater

Grey water will be deposited in a small pit excavated adjacent to the latrines. Upon completion of the camp, this small pit will be backfilled. Given the small number of people in the camp and its short occupation span, the overall quantities of greywater will be negligible

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X Solid Waste

All garbage produced by the crew during the project that is combustible will be burned, and that which cannot be burned will be transported out of the field for disposal in Iqaluit.

☐ Bulky Items/Scrap Metal

NOT APPLICABLE

☐ Waste Oil/Hazardous Waste

No hazardous wastes will be used during or produced by this project.

☐ Empty Barrels/Fuel Drums

NOT APPLICABLE

☐ Other:

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

Small contained camp fires will be used to burn any combustible waste. Materials that will be burned include paper products and food packaging (e.g. cardboard boxes, labels). Any materials that cannot be burned will transported out of camp.

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

Non-combustible waste will be collected in garbage bags at the site and transported back to Iqaluit for disposal in the municipal dump. The waste that will be disposed of at the dump will consist of regular house-hold materials and therefore, special authorization to dispose of it is not required.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).

NOT APPLICABLE

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

NOT APPLICABLE

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?

Yes, the methods implemented at these camps have been used at multiple other archaeological camps throughout Nunavut for decades.

ABANDONMENT AND RESTORATION

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

All structures, garbage, and other items brought in for use during this project will be removed upon completion of the proposed work. In accordance with standard archaeological procedures in the North, all excavated sites and test areas will be back-filled and re-sodded once excavations are complete in order to return the surface of the site as close to its original condition as possible. This includes replacing the soil, grading the area back to its natural contours, and replacing any surface vegetation.

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.)
- X 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