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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: _Melissa Lafreniere____Licence No: _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

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

2. Project Manager:_____Tel: _____Fax: _____E-mail: _____

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.

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 9 2010_____ Completion:____August 31, 2012_____

CAMP CLASSIFICATION

6. Type of Camp

   ☐ Mobile (self-propelled)
   x Temporary
   x Seasonally Occupied: _____
   ☐ Permanent
   ☐ Other:_____

7. What is the design, maximum and expected average population of the camp?
   Camp population will not exceed 4. Camp will consist of individal sleeping tents (4 tents), and one larger canvas "Igloo" tents for cooking and eating, and one similar tent for sample processing and other technical work.

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

   No member of our research group has used this site, however there was abundant oil and gas exploration in the area approximately 30-35 years ago.

CAMP LOCATION

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

The proposed camp will be located on dry, high plateau or hill within approximately 200m of a river or lake that can be used as a source of drinking water.

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 exact location of our camp has yet to be determined. We will select a location that consists of dry barren ground, in an area near a body of water (a river or creek) that can be used for collecting drinking water. The site location will depend in part on where we can establish an airstrip to supply our camp.

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

☐ NRI research permit number #02 063 10N-A/ expires Aug 10, 2010

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

12. Closest Communities (direction and distance in km):
Resolute Bay, Nunavut 380km, south east (106 degrees)

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

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?

The project will not impact traditional water use areas or local fish and wildlife.

PURPOSE OF THE CAMP

15.
☐ Mining (includes exploration drilling)
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
x Other ____scientific research_____

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)
- ☐ Other: _sampling stream water, monitoring soil temperature, moisture, river flow

17. Type of deposit (exploration focus):

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

DRILLING INFORMATION

18. Drilling Activities **NONE**

- ☐ 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. **NO**

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.

All fuel will be stored > 100 m from a water course in approved containers on an impermeable tarp.

Fuel transfer will be via hand pump over a similar tarp to collect spills and spill absorbent will deployed to adsorb any spills. All refueling with gasoline will occur > 100 m away from water courses and with a tarp to collect spills. Propane will not spill but care will be taken to avoid the release of gas. All empty fuel containers will be removed by aircraft. Remaining fuel will be documented with coordinates and amounts and reported to PCSP Resolute (the provider). As this is to be a multiyear project, unused fuel will be used in subsequent years, but all fuel will be removed at the end of the project. We will carry spare fuel in approved containers and fill with spouts while en route with ATVs. Further, we keep a spare empty container available to retain fuel from any container that might leak or fail.

24. How many spill kits will be on site and where will they be located?
We will have absorbent covers/pads for gasoline drums, and we will have a fullyequiped spill kit (with absorbent pads and tubes) in the main tent of camp.

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

Gasoline (in gerry cans, and drums)		180 L
Propane	5 x 20lb tanks	100lb
Motor oil (in gerry can)		4L

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Yet to be determined

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

x Domestic Use: 30L /day (0.03 m3/day) Water Source: _to be determined
☐ 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 collected manually from streams using 20L plastic jugs.

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

Drinking water quality will not be monitored

30. Will drinking water be treated? How?

Water will be filtered to remove sediment and pathogens using hand held (camping) ceramic filtration device.

31. Will water be stored on site?
Water will be collected and stored in 20L jugs.

WASTE TREATMENT AND DISPOSAL

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

x Camp Sewage (blackwater)

2L per person per day – All solid sewage will be disposed of in individual pits >100 m away from water course

x Camp Greywater
~10-15L per day, will be screened and disposed of on the ground in a shallow pit near camp. Away

x Solid Waste

Combustible waste will be burned daily in a container to collect the ashes, returned to PCSP Resolute at end of season. Non-combustible, will be collected in garbage bags and returned to PCSP Resolute at end of season

☐ Bulky Items/Scrap Metal

☐ Waste Oil/Hazardous Waste

x Empty Barrels/Fuel Drums
Will be removed by aircraft and returned to PCSP Resolute

☐ Other:

33. Please describe incineration system if used on site. What types of wastes will be incinerated?
Combustible camp garbage will be burnt daily in a 20L pail

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

Non-combustible material will be store in garbage bags and returned to PCSP Resolute at end of season

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

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

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

ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.
No restoration activities will be necessary. Three rivers will be instrumented with electronic sensors to measure flow, level, temperature, and turbidity during the summers. All river stations require temporary structures that are located on existing banks or shores and do not change the flow, dam or discharge hazardous materials. One temporary weather station will be installed and secured with flat plates, loaded with local rocks, and/or metal stakes. All materials will be removed when the work is completed. Soil moisture will be monitored using thin metal rods inserted into the ground. The rods do not disturb the soils and are removed at the end of each season. Vegetation and soils will be sampled for biomass and nutrient analyses. Shallow soil samples (100 ml) result in minimal disturbance of the landscape. Also, sampling a 5 cm2 area for biomass measurements will have a minimal impact on vegetation.

BASELINE DATA

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- [x] 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