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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: _____David Burgess_____Licence No: _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

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

2. Project Manager:__David Burgess___Tel: 613-995-5891_____Fax: _613-947-1385

E-mail: david.burgess@nrcan.gc.ca_____

3. Does the applicant hold the necessary property rights? N/A

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization. N/A

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: _April 16, 2009_____ Completion:___May 20, 2009_(to be performed annually into the future)

CAMP CLASSIFICATION

6. Type of Camp

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

7. What is the design, maximum and expected average population of the camp? 2 persons

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

CAMP	HISTORY
Melville ice cap	Measurements began in 1963
Meighen ice cap	Measurements began in 1959
Devon ice cap	Measurements began in 1960
Agassiz ice cap	Measurements began in 1977

CAMP LOCATION

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

All camps are located in the middle of ice caps except for the Melville camp which consists of a wooden hut approximately 700 m from the margin of the Melville ice cap.

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.

- Camps are selected based on proximity to the network of mass balance poles that are measured each year.
- All sites have been previously used (see item 8)
- No assistance from the Regional Inuit Association Land Manger was sought
- Maps and satellite images of study sites are attached

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

x	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):

Melville camp – Sachs Harbor (~550km South)
Devon camp – Grise Fiord (~120km North East)
Meighen camp – Eureka (~200km East)
Agassiz camp – Eureka (~150km South West)

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?

NO

PURPOSE OF THE CAMP

15.
- ☐ Mining (includes exploration drilling)
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- x Other ____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)
- x Other: __Snow sampling_, Shallow ice core drilling (<20m)_____

17. Type of deposit (exploration focus):

- ☐ Lead Zinc
- ☐ Diamond
- ☐ Gold
- ☐ Uranium
- x Other: ___Ice_____

DRILLING INFORMATION

18. Drilling Activities

- ☐ Land Based drilling
- x Drilling on ice

19. Describe what will be done with drill cuttings?

Ice chips will be left on ice cap.

20. Describe what will be done with drill water?

N/A – drill water is not used or generated as part of the drilling procedure

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.
Drilling fluids are not used.

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

Stratigraphy of ice core will be logged by visual inspection on the Agassiz ice cap

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 SpillContingencyPlan.doc attached

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

No spill kits will be on site. The only chemicals used are fuels, which are all used outside. In the event of a spill, the substance will be soaked up with snow, which will then be contained in garbage bags or plastic containers and transported to Resolute Bay for proper disposal.

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

Gasoline will be stored on all ice caps (Devon, Melville, Meighen, and Agassiz) in 5 gallon jerry cans.

IOSOL (white gas) is stored in metal fuel bottles and 5 gallon jerry cans. We will have approximately 5 gallons of iosol on hand at any time.

The Devon summit camp also has stored approximately 2 barrels of heating oil (diesel fuel), 3 barrels of gasoline, and 4 barrels of Jet-B aviation fuel.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Ice caps – see NTS map sheets

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

x Domestic Use: 0.1 Water Source: melting snow
☐ 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 intake will be performed by melting snow

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

NO

30. Will drinking water be treated? How?

NO

31. Will water be stored on site?

NO

WASTE TREATMENT AND DISPOSAL

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

x Camp Sewage (blackwater)

_____Contained and transported to Resolute Bay_____

x Camp Greywater

_____ Contained and transported to Resolute Bay _____

x Solid Waste

_____Transported back to Resolute Bay_____

☐ Bulky Items/Scrap Metal

_____n/a_____

☐ Waste Oil/Hazardous Waste

_____n/a_____

x Empty Barrels/Fuel Drums

_____Transported back to Resolute Bay_____

☐ Other:

_____

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

Incineration is not performed at camp sites.

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

Transported back to Resolute Bay for disposal

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?

NO

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, None, None

ABANDONMENT AND RESTORATION

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

If abandonment was necessary, the wooden huts on Meighen and Melville ice caps would be dismantled and transported back to Resolute Bay. This however is an ongoing project and camps are not intended to ever be abandoned.

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: _____

*Koerner, R.M. (2005): Mass balance of glaciers in the Queen Elizabeth Islands, Nunavut, Canada. Annals of Glaciology 42 (1): p.417-423.

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