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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

## EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

**Applicant:** 5050 Nunavut Limited **Licence No:** \_\_\_\_\_

(For NWB Use Only)

### ADMINISTRATIVE INFORMATION

1. Environment Manager: Franz Environmental Inc.  
Tel: 604-632-9941  
Fax: 604-632-9942  
Contact: Carlos da Ponte  
e-mail: [cdaponte@franzenvironmental.com](mailto:cdaponte@franzenvironmental.com)
2. Project Manager: Afzaal Pirzada Tel: 604-629-0250 Fax: 604-629-0923  
e-mail: [apirzada@adrianaresources.com](mailto:apirzada@adrianaresources.com)
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:  
X Multi Year: If Multi-Year indicate proposed schedule of on site activities  
  
Start: July 15, 2008 Completion: Ongoing

### CAMP CLASSIFICATION

6. Type of Camp  
Mobile (self-propelled)  
X Temporary  
X Seasonally Occupied: February to October  
Permanent  
Other:

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

The design population is for an average of 25 people. Occupancy will be seasonal, with anywhere from 1 to 30 people during the operational period. The exploration program for the MIE Project and BVU Project will run from February to October with a camp shutdown period from November to February. During the winter shut-down, one or two people may remain on site as caretakers and to watch the camp.

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

The Muskox Intrusion has been under exploration since 1956, numerous companies examined the intrusion but no significant deposits were outlined. Studies undertaken on the area include: geophysical and geochemical surveys and geological mapping of the Marginal Series near McGregor Lake; property-wide geophysical included: VLF, magnetics, gravity, VTEM, and GEOTEM, and SQUID; and numerous, highly anomalous grab samples were collected from the Pyrrhotite Lake, Southeast Speers Lake, Sulphide Breccia, Trench 87-1, Chalco Cliffs, and Chromite Reef areas.

A Phase I/II Environmental Site Assessment was conducted in 2004 by Golder and Associates on behalf of INAC. This report provides an inventory of the historical activities conducted at the camp and some quantification of the environmental effects from these activities.

## **CAMP LOCATION**

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

The existing McGregor Lake Campsite (*115 deg, 14', 27.353"W, 66 deg, 54', 45.96"N*) is at the northernmost tip of the lake, 100m from the Lake's high water mark. The camp is located on a flat bench of glacial gravel. The terrain and vegetation surrounding the project site is very typical of the tundra; consisting of subdued topography with small valleys and gently rolling/sloping hills separated by lakes. The project is located north of the tree line and consists of continuous permafrost extending to an average depth of 300m.

There are numerous animal species that inhabit the area, including caribou, musk ox, grizzly bears, wolves, wolverines, foxes, arctic hare, weasels, field mice, ground squirrels and a few moose.

The Bluenose caribou herd calves to the northwest of Kugluktuk and scattered members of the herd can be expected to be spotted during the summer in the Project area.

The few birds that live in the area include Peregrine falcons, ptarmigan, and eagles. Ravens and seagulls occasionally come in from the coast. A variety of small birds migrate into the area in the summer as well as ducks, loons and swans.

Fish in the local lakes are dominantly yellow-fin lake trout. In the rivers the red – fin lake trout predominate with common grayling, and very rare pike, as well as arctic Char seen in Coppermine River and Melville creek.

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.

5050 Nunavut originally proposed to establish a new camp at Iceberg Creek along the southwest shore of McGregor Lake, however, as an alternative to setting up a new camp, the Kitikmeot Inuit Association required 5050 Nunavut use an abandoned exploration camp (now known as the McGregor Lake Campsite) along the north shore of McGregor Lake. This alternative location was used historically by other mining companies (Figure 1-1).

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: N/A
X Inuit Owned Lands	Permit Number (s)/Expiry Date: KTL306C016/expires July 15 <sup>th</sup> 2008. This application is part of its renewal/amendment

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

The site is about 100 km south of Kugluktuk

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

The communities are aware of the exploration that has been occurring in the area. Sixty community members attended a community meeting at the Kugluktuk Arena in the summer of 2007. An interpreter was in attendance during the meeting to field questions. The presentation portion included description of the camp, location clean up, health and safety, and the future of the project. The community members were impressed with the amount of clean up 5050 Nunavut has accomplished. Community elders were concerned with whether their people would be involved in the future of the project. Gordon Addie, President of 5050 Nunavut Ltd, explained that future activities cannot proceed without the involvement of community members. Mr. Addie stressed the importance of traditional knowledge in the future of the project and that 5050 Nunavut is committed to not reproducing the negative effects previous mining companies have made in the McGregor Lake area. If the project continues on to mine construction intense meetings will be held at that time to determine the scope of a benefit package. Meanwhile the activities associated with the MIE & BVU project (e.g. the McGregor Lake Campsite and exploration) will continue to employ residents when possible.

The socio-economic impact is expected to be positive. 5050 Nunavut will hire up to 9 local workers as camp field staff through Kikiak Construction in Kugluktuk. Further positions will be offered for cooking and cleaning staff.

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 environmental impact is expected to be minimal. The camp layout and use of existing structures will minimize surface disturbance. Food will be stored inside closed buildings and garbage will be incinerated daily to avoid attracting animals. Campsite activities, including fuel storage and refueling, will be conducted a minimum distance of 30m from any water body.

The drill rigs will be flown to the drill locations to limit ground disturbance. Based on the type of mineral being explored, the drill activities will be conducted a minimum distance of 30 to 100m from any water body. 5050 Nunavut will inform the helicopter pilots of the general locations of the muskox herds and will either bypass them or increase altitude to minimize the noise level on the ground. If bears are nearby, work will be aborted. Falcon nests will also be avoided.

All fuel on the camp site will be stored in 170L structurally sound steel drums with secondary containment in accordance with Section 3.9 of the CCME Environmental Code of Practice for Aboveground and Underground storage Tank Systems Containing Petroleum and Allied Products (2003), and located 100m from the high water mark of McGregor Lake. The Spill Contingency Plan discusses the preventative measures 5050 Nunavut will abide by to avoid spills, as well as spill cleanup strategies.

The water intake will be located in McGregor Lake using a 'hose & float' system. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines.

## **PURPOSE OF THE CAMP**

15. Mining (includes exploration drilling):

The purpose of the camp is to support exploration activities associated with 5050 Nunavut's MIE and BVU exploration projects in the area.

16. Activities (check all applicable)

Preliminary site visit  
X Prospecting  
X Geological mapping  
X Geophysical survey  
X Diamond drilling  
X Reverse circulation drilling  
Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)  
Other:

17. Type of deposit (exploration focus):

- Lead Zinc
- Diamond
- Gold
- X Uranium
- Other: Nickel, Copper, Platinum, Palladium

## **DRILLING INFORMATION**

18. Drilling Activities

- X Land Based drilling
- X Drilling on ice

***For further information regarding the 5050 Nunavut's uranium exploration activities please refer to the Uranium Exploration Plan submitted by Adriana Resources Inc. (previously submitted to the NWB May 7, 2007)***

19. Describe what will be done with drill cuttings?

All drill cuttings will be retained in a natural depression, 30m from the high water mark of any water body. It will be ensured that when drilling on ice the return water released is non-toxic, and not result an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines. In the case of uranium exploration, drill cuttings and mud with a uranium concentration of 0.05% will be collected and disposed of down the drill hole and the hole will be sealed. Any drill hole that encounters mineralization with uranium content greater than 1.0% over a length >1 meter, and with a meter-percent concentration >5.0, will be sealed by grouting over the entire length of the mineralization zone and not less than 10 meters above or below each mineralization zone.

20. Describe what will be done with drill water?

If drill water is of a poor quality (as according to regulations) it will be disposed of in a properly constructed sump, or an appropriate natural depression located at least thirty meters above the ordinary high water mark of water bodies. Upon completion of the drill hole the sump will be backfilled and returned as close as possible to the pre-disturbed state of surrounding areas.

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.

The drill additives that may be used include poly drill OBX, and poly drill 133-x (or other similar nontoxic biodegradable product. They are both liquid polymers, and do not contain hazardous ingredients. See attached MSDS sheets for exact chemical constituents.

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

The cores will be split, logged, sampled and stored at the campsite.

## 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.

Please refer to the McGregor Lake Campsite Spill and Contingency Plan.

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

Five spill kits will be maintained on site. They will be located at the generator room, fuel storage and transfer areas, helipad, and on each drill rig (2).

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

Fuel Type	Container Type	Number of Containers	Container Capacity (litre)	Total Volume to be Stored On-Site
Diesel (P-50)	Barrels	100	170L	17,000L
Gasoline	Barrels	10	170L	1,700L
Jet B	Barrels	300	170L	51,000L
Propane	Barrels	10	100 lb tank	1000 lbs
Lubricants & Oils	Plastic Jugs	25	20L	500L

See attached copy of MSDS sheets.

\*In the chance of encountering Uranium in the drill cores, 5050 Nunavut currently holds a Waste Generator # NUG100022 which will be used to document hazardous waste that may occasionally be transported from the Project area for proper disposal. The same individual in charge of documenting the hazardous wastes will have completed a course in the Transportation of Dangerous Goods specifically designed to train geologists in the safe transport of nuclear substances.

For the long term storage of drill core, radiation levels will be reduced to less than 1.0  $\mu\text{Sv}$  measured at 1.0 meter from the surface and in no instance will the level be allowed to exceed 2.5  $\mu\text{Sv}$ . In practice, it is anticipated that major uranium intersections will be transported to the Saskatchewan Research Council for testing and storage at their nuclear materials storage facility.

## WATER SUPPLY AND TREATMENT

25. Describe the location of water sources

Water for the camp will be pumped from McGregor Lake using a 'hose and float' system, while water for the drilling operations will be pumped from lakes and streams nearby the drill sites.

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

Domestic Use: 3m<sup>3</sup>/day for 30 people    Water Source: McGregor Lake  
Drilling: 260m<sup>3</sup> for 10,000m of drilling    Water Source: Nearby lakes & streams  
Other: \_\_\_\_\_ Water Source:

27. 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:

The water for camp operations will be pumped from McGregor Lake using a 'hose & float' system. The intake end of the pipe will be equipped with a screen to avoid fish entrapment. The screen size will be determined following the calculations outlined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines.

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

Water for human consumption will pass through a UV filtration system and/or brought in as bottled drinking water. Water quality sampling will be conducted in accordance with the Public Health Act *Public Water Supply Regulations (R.R.N.W.T 1990, c.P-23 including amendments R-015-2004)*

29. Will drinking water be treated? How?

Water for human consumption will pass through a UV filtration system and/or brought in as bottled drinking water.

30. Will water be stored on site?

Water for domestic use will be stored in three 305 gallon water tanks.

## WASTE TREATMENT AND DISPOSAL

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

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### X Camp Sewage (blackwater)

All sewage will be collected with a waterless Pacto toilet system. The resultant encapsulated waste will be burned in the incinerator.

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### X Camp Greywater

All camp discharge water; estimated for 30 people at 3.0 cubic metres per day of wash water, shower water and kitchen water, will be biologically treated in a sump. The Sump will be located 100m from the high water mark.

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### X Solid Waste

Volumes of solid waste will vary with the daily population of the camp and project activities. All combustible solid waste will be burned daily in an incinerator. The non-combustible solid waste will be packaged up and flown out to Yellowknife on the return flight that brought in supplies.

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### X Bulky Items/Scrap Metal

Bulky items and scrap metal will be back hauled from the site for recycling or disposal in the Yellowknife landfill.

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### X Waste Oil/Hazardous Waste

Waste oil volumes from the camp and related activities will be less than 0.04 cubic metres per week. Waste oil will be incinerated or used for heating purposes. There will be no hazardous materials on the project site.

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### X Empty Barrels/Fuel Drums

The empty barrels/fuel drums will be flown out to Yellowknife or Kugluktuk on the return flight that brought in supplies. They will be returned to the vendor.

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### Other:

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

The site will be equipped with a Smart Ash cyclonic Barrel Burner® incinerator, or similar type, which burns 50 lbs/hour. It will be used to dispose of domestic wastes from the kitchen and camp facilities as well as waste oil.



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

The non-combustible waste is back hauled to the Yellowknife landfill.

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

A 2 m × 2 m × 1 m sump will be dug in well-drained soils within 100 m of the camp, and 100 m away from the high water mark of water bodies.

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

No, any leachate from the greywater sump will be biologically treated and is not expected to pose a problem.

## **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 water supply and waste treatment and disposal methods have been used and proven in cold climates.

Water supply: O&M problems that may occur include a malfunctioning pump, or malfunctioning of the generator creating power to run the pump and heat the water intake line. Contingency: There is enough room in all of the water tanks to hold 915 gallons of water, which will hold over the camp until either the pump or generator is fixed or replaced.

## **ABANDONMENT AND RESTORATION**

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

Please refer to the attached McGregor Lake Campsite Abandonment and Restoration Plan (2008)

## **BASELINE DATA**

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

Baseline data has not been collected for this project.

## 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 I 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 I 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*