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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: N/A Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

2. Project Manager: Erika Solski Tel: 867-975-4577 Fax: 867-975-4736  
E-mail: Erika.Solski@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.

**Yes**

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: February 2014 Completion: March 31 2016

### CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)  
☒ Temporary  
☒ Seasonally Occupied: June to September 2013  
☐ Permanent  
☐ Other: \_\_\_\_\_

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

**The design and maximum occupancy of the camp is 25 people. The expected average population is 25 people.**

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

**Not Applicable.**

## **CAMP LOCATION**

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

**The proposed location of the camp facilities will be located just north of the airstrip (GPS Coordinates 61°08'03.08"N, 100°51'59.11"W). Figures showing this layout with related features can be found in Appendix 5.**

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.

**This location was selected because of the proximity to the airstrip and a water source as well as the fact that it is a flat dry area. The site has not been used previously to our knowledge. See Appendix 2 and 5 for additional figures showing the proposed camp location.**

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

<input checked="" type="checkbox"/>	Crown Lands	Permit Number(s)/Expiry Date: <u>Application Pending</u>
<input type="checkbox"/>	Commissioners Lands	Permit Number(s)/Expiry Date: _____
<input checked="" type="checkbox"/>	Inuit Owned Lands	Permit Number(s)/Expiry Date: <u>#K VX11X01</u> <u>March 31<sup>st</sup>, 2016</u>

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

**Arviat ~380 km to the East of the Ennadai Lake Remediation Site.**

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

**Yes, Community Meetings were held in Arviat in December 2012. An additional meeting is planned for the fall of 2013 in Arviat, Whale Cove and Rankin Inlet.**

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)  
☒ Other: **To Support Remedial 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)  
☒ Other: **Remedial Activities**
17. Type of deposit (exploration focus):
- ☐ Lead Zinc  
☐ Diamond  
☐ Gold  
☐ Uranium  
☒ Other: **Not Applicable**

## DRILLING INFORMATION

18. Drilling Activities
- Not Applicable.**
- ☐ 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.

**A Site Specific Spill Contingency Plan has been provided with this Water Licence Application located in Appendix 12.**

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

**Spill kits will be located as follows:**

- **A minimum of two “Drum Spill Kits” will be maintained in the fuel storage/refueling area. An inventory of over pack drums and additional spill cleanup materials will be stored near this area as well.**
- **All mobile equipment will carry an “Equipment Spill Kit”.**
- **ATVs will carry small portable spill kits**

**For further information see the Site Specific Spill Contingency Plan in appendix 12.**

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

**See the Site Specific Spill Contingency Plan located as an appendix within appendix 12.**

## **WATER SUPPLY AND TREATMENT**

26. Describe the location of water sources.

**All water will be sourced from Ennadai Lake (GPS Coordinates 61° 07'59.27"N, 100°53'31.62"W). See Appendix 5.**

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

<input checked="" type="checkbox"/>	Domestic Use: <u>3</u>	Water Source: <u>Ennadai Lake</u>
<input type="checkbox"/>	Drilling: _____	Water Source: _____
<input checked="" type="checkbox"/>	Other: <u>3</u>	Water Source: <u>Ennadai Lake</u>

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 pumped from the lake directly into a mobile tank and transferred into the camp tank. The water intake hose will be covered with a screen (maximum screen size of 2.54 millimetres and maximum screen approach velocity of 0.038 metres/second) to ensure that no fish become trapped.**

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

**The water quality would initially be tested according to the Guidelines for Canadian Drinking Water Quality to determine if it is drinkable as is or to determine which treatment will be required to make it potable. Even if chemical analysis are showing that the water is potable, a treatment system (UV lamp, 5 micron sediment filter and carbon filter) will be installed in the kitchen and all potable and cooking water would be treated to assure the constant quality of it. The water quality will be tested every two weeks.**

30. Will drinking water be treated? How?

**UV lamp, 5 micron sediment filter and carbon filter)**

31. Will water be stored on site?

**Yes, in a 4000 litre camp water tank.**

## **WASTE TREATMENT AND DISPOSAL**

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

☒ Camp Sewage (blackwater)

**30 litres/day x 25 people (max) = 750 litres/day. The sewage will be directed into the Bionest unit for treatment as described in Appendix 2 (question # 23 of the NIRB Part Two Form) and then disposed of in a sewage lagoon.**

☒ Camp Greywater

**170 litres/day x 25 people (max) = 4250 litres/day The camp grey water will be directed into the Bionest and treated using the Bionest Kodiak unit described in Appendix 2 (question # 23 of the NIRB Part Two Form) and then disposed of in a sewage lagoon.**

☒ Solid Waste

**Solid camp waste (paper, packaging, food, etc.) will be incinerated (combustibles only) or shipped south to a licensed disposal facility.**

☒ **Bulky Items/Scrap Metal**

**Non-combustible solid waste collected around the site and generated during site operations will be compacted and packaged for transportation off-site. Some materials that do not require off-site disposal will be disposed of in the on-site Non-Hazardous Waste Landfill (NHWL) that will be constructed at the Ennadai Lake Remediation Site (See Appendix 5 for location).**

☒ **Waste Oil/Hazardous Waste**

**Hazardous waste including asbestos, cylinders, items painted with lead based paint, and organic liquids. These materials will be packaged as per the Transportation of Dangerous Goods Regulations and shipped south to a licensed disposal facility.**

☒ **Empty Barrels/Fuel Drums**

**Empty barrels/fuel drums will be handled as per the Barrel Protocol described in the Abandoned Military Site Remediation Protocol (INAC 2009) and as outlined in the Remedial Action Plan (Appendix 4).**

- **Barrels will be inspected, sampled, tested, have any contents removed and treated, cleaned, crushed, packaged, and then be transported to the Ennadai Lake NHWL, where they will be disposed of.**
- **339 barrels have been identified at the Ennadai Lake Remediation Site.**
- **Additional barrels resulting from remedial activities will be handled in the same manner, however may be transported off-site due to landfill volume design restraints.**
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☒ **Other:**

**Other waste includes contaminated soils (metal and petroleum hydrocarbons). Contaminated soils will be handled as described in the Remedial Action Plan (Appendix 4). To summarize:**

- **Tier II soil (0.5 cubic metres) – packaged and transported south to a licensed disposal facility.**
- **Type B (hydrocarbons) soil (2,146 cubic metres) – to be treated in an onsite landfarm.**

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

**FireLake A-400 Incinerator. Combustible wastes generated from camp operations will be incinerated; these will include paper, cardboard, other packaging materials and food wastes.**

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 shipped south to a licensed disposal facility.**

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?

**The waste treatment and disposal methods have been used on similar projects in the past and are proven to work in a cold climate (see Appendix 9 which includes info from a previous project (CAM-D) using the Bionest Kodiak Treatment system). The only waste treatment to take place on-site is the incineration of combustible wastes and treatment of the black and grey water.**

**Potential O&M problems that could be encountered during the incineration of the combustible wastes are failure of the incinerator and incomplete combustion. The contingency plan for these problems include either repairing the incinerator or testing the ash before disposing of in the Non-Hazardous waste landfill on-site or shipping the waste off-site for disposal.**

**Potential O&M problems that could be encountered during the treatment of black and grey water using the Bionest Kodiak System which involves two small sewage lagoons include(s) increased volumes of material for treatment and failure to meet discharge criteria. The contingency plans for these problems include constructing the sewage lagoon in an area that would allow for an additional lagoon to be constructed nearby to contain increased volumes of material and allow for additional treatment time as required.**

**Drinking water: We will have some spare parts for the UV lamp and carbon filters. Water bottles will be also available for emergencies.**

**Waste water: The treatment system comes with spare parts. In case of temporary shutdown, the waste water will be accumulated into lined lagoon.**

## **ABANDONMENT AND RESTORATION**

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

**Since this is a Remediation Project, the Remedial Action Plan details the final abandonment and restoration activities at the site. A copy of the Remedial Action Plan has been provided in Appendix 4.**

## **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: \_\_\_\_\_

**An Environmental Screening Report was completed and is provided in appendix 6. Also an Archaeological Impact Assessment was conducted at the site and has been provided in Appendix 8. A list of additional documents detailing the site has been provided in Appendix 9.**

## **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*