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NUNAVUT WATER BOARD

NUNAVUT IMALIRIYIN KATIMAYINGI

## EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

NUNAVUT WATER BOARD

MAY 12 2000

PUBLIC REGISTRY

Applicant: Qikiqtaaluk Corporation

Licence No: \_\_\_\_\_

(For NWB Use Only)

### ADMINISTRATIVE INFORMATION

Environment Manager: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

2. Project Manager: Michael Hine Tel: 867-979-8400 Fax: 979-8433 E-mail: mhine@nunanet.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.

5. Duration of the Project

☐ Annual

☒ Multi Year:

If Multi-Year indicate proposed schedule of on site activities

Start: June 1, 2000

Completion: May 31, 2002

### CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)

☐ Temporary

☒ Seasonally Occupied: June - October

☐ Permanent

☐ Other: \_\_\_\_\_

INTERNAL	
PC	<input checked="" type="checkbox"/>
LA	<input checked="" type="checkbox"/>
OM	<input type="checkbox"/>
TA	<input type="checkbox"/>
GS	<input type="checkbox"/>
ED	<input type="checkbox"/>
CEO	<input type="checkbox"/>
BRD	<input type="checkbox"/>

What are the design population of the camp and the maximum population expected on site at one time? What will be the fluctuations in personnel?

We anticipate a total of 6 insulated tents or Weatherhaven shelters. Maximum population is 12 persons, which should remain pretty stable over the season.

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

Site has been occupied sporadically over the past 30 years. Major exploration projects have occurred during the late '80's and early 90's, during which some 4,000 metres of drilling took place. We anticipate utilizing the old camp site for our camp.

## CAMP LOCATION

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

Camp is located in an area of Arctic tundra with limited permafrost development in low-lying areas. Elevated areas are exposed bedrock outcroppings in many areas covered with a thin veneer of glacial till 2-4 m in thickness. Flora is limited to small bushes, the occasional conifer and lichens. Regional fauna is a typical Arctic assemblage, the largest mammals being caribou, arctic fox and occasional to rare polar bears as well as various ground-dwelling animals such as marmots, hare, weasels...etc.

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.

Site will be on an old camp areas which was previously used during late 80's and early 90's.

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

<input type="checkbox"/> Crown Lands	Permit Number (s)/Expiry Date: _____
<input type="checkbox"/> Commissioners Lands	Permit Number (s)/Expiry Date: _____
<input checked="" type="checkbox"/> Inuit Owned Lands	Permit Number (s)/Expiry Date: <u>In Process</u> _____

12. Closest Communities (distance in km):

Bathurst Inlet – 50 km

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

We have attempted to contact the community, but to date have been unsuccessful. We have been in contact with KIA and NTI.

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 impact on traditional water use or on local fish and wildlife habitats is foreseen.

## PURPOSE OF THE CAMP

15. ☒ Mining  
☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)  
(Omit questions # 16 to 21)

☐ Other \_\_\_\_\_ (Omit questions # 16 to 22)

16. ☒ Preliminary site visit
- ☒ Prospecting
  - ☒ Geological mapping
  - ☐ Geophysical survey
  - ☒ Diamond drilling
  - ☐ Reverse circulation drilling
  - ☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
  - ☐ Other: \_\_\_\_\_

17. Type of deposit:

- ☐ 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?

Cuttings will be recovered and analysed when required.

20. Describe what will be done with drill water?

Drill water will be collected in a sump beside the drill and recycled where possible.

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.

MSDS sheets are attached for additives used during drilling:

- a) Polydrill 1330 – a lubricator used during drilling at a rate of 1 gallon per day; and,
- b) Calcium chloride – a salt used during drilling in permafrost – possibly 5 bags per day in some holes depending on the amount and type of overburden.

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

Non-chemical, magnetic susceptibility testing may be carried out on the core surface with an electronic sensor. No other on-site testing is contemplated.

## SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.

Yes. Fuel storage will be in a flat low-lying area surrounded by a barrier sufficient to contain spillage from several 45 gallon drums. As no bulk-storage containers will be present on site, there is no potential for a large volume spill.

As fuel containers are used, they will be rolled onto a raised wooden platform below which will be a plastic liner to collect incidental spillage which may occur during the fueling of equipment or during the transfer of fuel to smaller, portable containers.

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

Two will be located at the fuel storage area near the platform where fuel transfer will take place. A third kit will be located in the centre of camp to be used if a spill occurs from a transfer jug at the time the tanks for the living quarters are re-filled.

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

- a) Diesel Fuel            estimate 300 drums on site
- b) Aviation Fuel        estimate 50 drums on site
- c) Jet-B Fuel            estimate 100 drums on site
- d) Calcium Chloride estimate 200 100-lb bags on site

all fuel will be stored in standard metal 45 gallon drums.  
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bags will be stored on a wooden platform and covered by firstly a plastic tarpaulin and secondly by a wooden frame tent.

## WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Camp: Water source will be Pistol Lake which measures approximately 1,500 m by 500 m.

Drill: Water source will be Knutsen Lake which measures approximately 500 m by 150 m.

27. Estimated demand (in L/day \* person):

<input checked="" type="checkbox"/> Domestic Use:	<u>50</u>	Water Source:	<u>Pistol Lake</u>
<input checked="" type="checkbox"/> Drilling Units:	<u>3,500</u>	Water Source:	<u>Knutsen Lake</u>
<input type="checkbox"/> Other:	<u></u>	Water Source:	<u></u>

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:

Water intake will be located approximately 100 m offshore in Pistol Lake and will be attached to an anchored line with a float on surface. The intake will be located at a depth approximately midway between the bottom and surface.

The intake will be covered by a fine mesh screen to prevent entrapment of fish and to limit the intake of suspended organic material.

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

Due to the remote location of Pistol Lake, approximately 45 km from the nearest human settlement, no regular testing is contemplated. An initial test is planned to determine the presence of and concentration of pathogenic bacteria in the water, if any.

30. Will drinking water be treated? How?

Treatment will be dependent on the results from the initial tests. If required treatment will be either by boiling or filtering through a ceramic filter.

31. Will water be stored on site?

Drinking water will be stored in new, clear plastic 5 gallon jugs which will be kept in the kitchen. If chemical or other treatment is required, a larger storage container may be used to ensure proper sterilization procedures.

Wash water will be available from a 60 gal. hot water tank and from a 100 gal. cold water tank.

## WASTE TREATMENT AND DISPOSAL

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

☒ Camp Sewage (blackwater) – the human waste from a crew of as many as 12 staff will be disposed of using the Pacto system which seals waste in a plastic sleeve. On a daily basis the sleeves will be collected and incinerated, together with other organic waste, using either fuel oil or propane as an aid to complete combustion in the camp incinerator. There should be no blackwater outflow from the toilet system.

☒ Camp Greywater - the camp is estimated to produce approximately 800-1,000 litres of greywater per day. This water will be collected and piped to a containment pond in a low-lying area.

☒ Solid Waste - the camp, primarily the kitchen, is estimated to produce 30-40 kg of solid waste, primarily organics, per day. This material will be burned in the camp incinerator.

☒ Bulky Items/Scrap Metal – aside from fuel drums, discussed below, no other bulky scrap (waste) items are anticipated.

☒ Waste Oil/Hazardous Waste – all used or waste petroleum products will be thoroughly burned on site. Any toxic residues will be packaged for removal from the site.

☒ Empty Barrels/Fuel Drums – fuel consumption will result in approximately 75-100 empty fuel drums per month during the operating period. These barrels will be removed from the site by fixed wing aircraft to a point where they can be barged to a re-supply point.

☒ Other:

none

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

Incineration will be used for kitchen waste, wash area waste (mainly paper), human waste, office waste (paper) and materials soaked in waste oil or other petroleum products. An incinerator will be constructed using two stacked empty oil drums which will permit airflow through a central grating. Complete combustion will be ensured through the use of fuel oil or propane to raise the combustion temperature. A grating at the top will prevent the escape of burning material.

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

When practical, this material will also be burned to remove any attached organic material. Depending on size and its tendency for natural decay, it will either be packaged in barrels for removal from the site or buried. The site is not in a municipality in Nunavut.

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

Not applicable.

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

Leachate, if any, will be examined before the exploration crew temporarily shuts down its field operations, probably during October, and again when the exploration crew returns to the camp during the spring of 2001. If significant leachate is present, which is doubtful, a sample will be taken for analysis at an accredited environmental laboratory.

## 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 water supply is via a method long used in the exploration business. A spare pump will be present on site. A ceramic filter for water purification will also be available on site.

The environmental impact of the human waste disposal techniques proposed is less than that which evolve from traditional disposal methods. The methods have been used in very dry and very humid climates, both very hot and very cold. O&M problems are commonly related to the failure of individual mechanical parts. As the methods chosen do not involve "high tech" equipment, parts replacement by personnel on site is possible. Replacement items are readily available from Vancouver and can be placed on a regularly scheduled weekly flight either from Yellowknife or Cambridge Bay.

## ABANDONMENT AND RESTORATION

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

The project will operate during the summer and fall of 2000. Operations will be temporarily suspended. During this period, the shelters will be disassembled and stored in their original shipping containers on the ground.

Abandonment will only occur if the project is a failure. As many years of previous work have indicated an excellent potential for a minable gold deposit, we believe the chances for abandonment are quite limited. However, in the event that the project is abandoned, all camp installations, oil drums ..... etc. will be removed. All waste products will be either burned and buried, and/or removed from the site as applicable.

## 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:

As the project is at an early stage in an area already disturbed by human activities, we do not plan to collect baseline information at this time.

## REGULATORY INFORMATION

40. Do you have a copy of

- ☒ Article 13 - Nunavut Land Claims Agreement
- ☐ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ☐ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ☐ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ☐ NWTWB - Guidelines for Contingency Planning
- ☐ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ☐ Fisheries Act - s.35
- ☐ RWED - Environment Protection- Spill Contingency Regulations
- ☐ Canadian Drinking Water Quality Guidelines
- ☐ Public Health Act Camp Sanitation Regulations
- ☐ Public Health Act Water Supply Regulations
- ☐ Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.