Effective June 16, 2006

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE
APPLICATION FORM

Application for: (check one)

☒ **New** ☐ **Renewal** ☐ **Amendment** ☐ **Assignment** ☐ **Cancellation**

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Joyia Chakungal
Canada - Nunavut Geoscience Office
P.O. Box 2319
Iqaluit, NU X0A 0H0

Phone: 867.975.4529
Fax: 867.979.0708
E-mail: jchakung@nrcan.gc.ca

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Phone:
Fax:
E-mail:

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

We are proposing that the location of our campsite be the Sarcpa Lake DEW station with co'ordinates provided below. For the boundaries of the project's area of interest, please refer to attached map.

Latitude: (68°33'0" N) Longitude: (83°19'0" W)
NTS Map Sheet No. 047A Scale: 1:250,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

Please see attached project discription/summary.

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire **must** be submitted with the application for undertakings listed in **"bold"**)

☐ **Industrial**
☐ **Mining and Milling**(includes exploration/drilling)
☐ **Municipal** (includes camps/lodges)
☐ Power
☐ Agricultural
☐ **Conservation**
☐ Recreational
☒ **Miscellaneous** (describe below):

Base camp from which geological mapping crews will work.

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

☐ To obtain water
☐ To cross a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control
☐ To divert a watercourse
☐ To alter the flow of , or store, water

☒ Other (describe): To obtain water for drinking and cooking purposes only.

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

Water use ☒ $100m^3$/day or less
☐ Greater than $100m^3$/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

Water returned to source
_____ m^3/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

☒ Sewage
☒ Solid Waste
☐ Hazardous
☐ Bulky Items/Scrap Metal
☐ Waste oil
☒ Greywater
☐ Sludges
☒ Other describe):Organic wastes (e.g. food scraps) will be burned. Sewage and greywater will be buried, solid wastes will be back hauled.

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND	☐ Yes	☒ No	If no, date expected March 1, 2009
Regional Inuit Association	☐ Yes	☒ No	If no, date expected March 1, 2009
Commissioner	☐ Yes	☐ No	If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

NIRB Screening ☒ Yes ☐ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

The activity associated with the Melville Peninsula Geo-mapping project will not affect the quality, quantity or flow of water flowing through IOLs, nor will it affect the rights of Inuit as stated in Article 20 of the NLCA.

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay

compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

N/A

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

See attached project description

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee of $30.00 (Payee Receiver General for Canada) ☐ Yes ☒ No If no, date expected Please send an invoice to: Canada - Nunavut Geoscience Office, PO Box 2319, Iqaluit, Nunavut; Attention Donald James

Water Use fee of $30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations;* Payee Receiver General for Canada)

☐ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: March 1, 2009 Completion Date: August 29, 2011

Joyia Chakungal	Research Scientist		January 20, 2009
Name (Print)	Title (Print)	Signature	Date

For Nunavut Water Board office use only

APPLICATION FEE **Amount: $_____** **Pay ID No.: _____**

WATER USE DEPOSIT **Amount: $_____** **Pay ID No.: _____**

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: ___Dr. Joyia Chakungal_____ **Licence No:** _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

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

2. **(co) Project Manager**:_ Joyia Chakungal_ **Tel:** 867.975.4529_ **Fax:** 867.979.0708_ **E-mail:** _joyia.chakungal@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.**

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: March 1, 2009 Completion:_ August 29th, 2009__

CAMP CLASSIFICATION

6. **Type of Camp**

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

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

Stationed out of the base came there will be: ~ 17 geologists and assistants; 2 helicopter pilots; 2 engineers, 1 cook and 1 assistant to the cook for a total of 23 people at one time.

8. **Provide history of the site if it has been used in the past.**
The proposed camp site location is the recently reclaimed Sarcpa Lake DEW station.

CAMP LOCATION

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

The campsite for which co-ordinates have been provided corresponds with the recently reclaimed Sarcpa Lake DEW station. It is our understanding that the water quality in the lake and Kingora River is of adequate drinking/cooking quality.

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 location of the camp was selected based on the availability of an airstrip, which was established when the DEW station was constructed.

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

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

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

Hamlet of Hall Beach (~ 90 km east - northeast of DEW station)
Hamlet of Igloolik (~ 110 km northeast of DEW station)

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

The hamlet offices and appropriate organizations (i.e. QIA and HTA) have been contacted in both Hall Beach and Igloolik. Project leaders and officials are currently working out a convenient time to visit each.

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, the project will not impact traditional water use in the area nor will it have an impact on the local wildlife populations and habitats.

PURPOSE OF THE CAMP

15.

- ☐ Mining (includes exploration drilling)
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- ☑ Other: _Geological (scientific) mapping and surface sampling

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: _____

17. Type of deposit (exploration focus):

- ☐ Lead Zinc
- ☐ Diamond
- ☐ Gold
- ☐ Uranium
- ☑ Other: _The purpose of our work is to determine whether the area hosts any unidentified deposits with economic potential (e.g. diamond, iron, uranium or gold).

DRILLING INFORMATION – *****not applicable to the Melville Peninsula Geo-mapping project.**

18. Drilling Activities

- ☐ 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.

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.

The Permittee shall report all spills immediately with instructions contained in "Spill Report" form NWT 1752 (05/93), the NWT Water Board's "Guidelines for Contingency Planning" (1987) and contact the Twenty-four (24) hour spill report line (867) 920-8130. The project's spill contingency plan is attached.

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

Three spill kits will be in camp: Kitchen, Generator station and Helicopter refueling area.

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

200 x 205 L drums of Jet B will be stored on removable fuel burm.
Gasoline will be stored in CSA approved 19L jerry cans
White gas will be stored in original containers
Propane will be stored in CSA approved 100 lb pressurized cylinders and stored according to MSDS requirements.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Water will be obtained from the river or lake adjacent to the campsite.

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

☑ Domestic Use: ~0.2 m^3/day Water Source: River or lake
☐ 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 accomplished with the use of a water pump. The inta hose will be equipped with a mesh screen.

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? Yes

WASTE TREATMENT AND DISPOSAL

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

☑ Camp Sewage (blackwater)

buried.

☑ Camp Greywater

buried.

☑ Solid Waste

If flammable, (organic) it will be burned. If not, it will be back hauled to the municipal landfill at the project's cost.

☑ Bulky Items/Scrap Metal

Will be back hauled to the municipal landfill.

☐ Waste Oil/Hazardous Waste

N/A

☑ Empty Barrels/Fuel Drums

Will be back hauled to the municipality for reuse or to the landfill.

☐ Other:

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

Combustible, organic (i.e. food scraps) will be incinerated in a used fuel drum.

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 back hauled to a municipal landfill (either Hall Beach or Iqaluit).

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? N/A

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 proposed method of water supply, waste treatment and disposal methods have been utilized by government researches for decades, and has worked quite well. As a contingency, water will be manually hauled (using containers) to the campsite.

ABANDONMENT AND RESTORATION

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

The camp will be returned to its original condition. All garbage will be picked up and grey water/sewage pits will be adequately buried.

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: _____

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

CANADA–NUNAVUT GEOSCIENCE OFFICE AND GEOLOGICAL SURVEY OF CANADA'S SPILL CONTINGENCY PLAN: MELVILLE PENINSULA GEO-MAPPING PROJECT 2009

The Melville Peninsula Geo-mapping Project will make use of one field camp at Sarcpa Lake DEW station or up river along the Kingora River. The following types of fuel will be used on site: aviation fuel (Jet-B, stored in standard 205L sealed fuel drums), gasoline (stored in CSA approved 19L jerry cans) and propane (stored in CSA approved 100 lb pressurized cylinders). This document outlines the organization of the response, the plan for initial response, reporting procedures in the event of a spill, and spill kits maintained on site.

Response Organization:
The first person on the site will (1) assess the spill situation, (2) immediately contact the field Party Chief and provide all information about the spill. Upon receiving this information, the Party Chief will recommend a course of action according to the following procedure:

(a) Evaluates the scale of the spill.
(b) Activates the initial response plan.
(c) Assembles a spill response team and directs them in implementing the spill response plan including containment, recovery, remediation, and disposal operations.
(d) Calls the NWT 24 Hour Spill Line at (867) 920-8130 as soon as possible to report the spill and provide initial incident details. A NWT Spill Report Form will be faxed to (867) 873-6924.
(e) Gathers relevant information and submits a detailed spill report to the applicable regulatory agencies no later than thirty (30) days after the initial reporting of the spill.

Initial response plan:
The first person at the site will ensure safety of himself and those near the site. Next he will notify the Party Chief about the spill.

Gasoline:
If possible and safety permits, stop the flow and eliminate ignition sources. Gasoline forms vapors that can ignite and explode. No smoking is permitted when responding to a gasoline spill. Use particulate sorbent material to soak up the spill. All contaminated water, snow/ice, soils, clean up supplies, and absorbent materials will be stored in closed, labeled containers. The containers will be stored in ventilated areas away from incompatible materials. Electrically ground all containers and transporting equipment.

626 Tumiit Building P.O.Box 2319 Iqaluit, Nunavut X0A 0H0 tel: (867)979-3539 fax: (867)979 0708 email: cngo@nunanet.com
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Canada

Nunavut

Aviation Fuel:
If possible and safety permits, stop the flow and eliminate ignition sources. Aviation fuel forms vapors that can ignite and explode, so no smoking is permitted when responding to an aviation fuel spill. Use particulate sorbent material to soak up the spill. All contaminated water, snow/ice, soils, clean up supplies, and absorbent materials will be stored in closed, labeled containers. The containers will be stored in ventilated areas away from incompatible materials. Electrically ground all containers and transporting equipment.

Propane:
If possible and safety permits, eliminate all ignition sources. No smoking is permitted when responding to a propane release. Do not attempt to contain or remove release. No disposal is required, as it cannot be contained once it has been released.

Reporting Procedure:
1. Fill out **"SPILL REPORT"** form as completely as possible before making the report.
2. Report IMMEDIATELY to Yellowknife using the 24 hour Spill Report Line. 24 HOUR SPILL REPORT LINE **(867) 920-8130**
3. Where FAX is available, follow up by sending a copy of the spill Report to **FAX # (867) 873-6924**
4. RCMP communications may be used if other means are not available.
5. DIAND's Water Resources Inspector ((867)-975-4298) will also be notified.

Spill Kits:
We will have spill kits available in the field camp. Each kit will be inspected by the Party Chief on a regular basis to ensure it contains the following:

1 package of 10 disposable 5 mil polyethylene bags.
10 lb. Bag of particulate
1 bail of 17' x 19' x absorbent sheets (100 sheets/bail)
2 PVC oil resistant gloves
2 respirators
2 pairs of splash protective goggles.

Contacts:
DIAND Water Resources ((867) 975-4555)
Environment Canada ((867) 975-4636)
INAC Environment and Contaminants ((867)-975-4549)

Canada
626 Tumiit Building P.O.Box 2319 Iqaluit, Nunavut X0A 0H0 tel: (867)979-3539 fax: (867)979 0708 email: cngo@nunanet.com
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Nunavut

MELVILLE PENINSULA-ᒥᑦ ᓄᓇᖅᐱᒋᓪᓗᐊᖅᓯᒪᓂᖅ: ᐱᓕᕆᐊᒧᑦ ᓇᓗᓇᐃᔨᖅᓯᒪᓂᕐᓂ

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[3]ᑲᓇᑕ – ᓄᓇᕗᑦ ᐅᔭᖅᑲᓕᓕᒫᑦ ᐊᑦᓚᐃᖏᑐᒃ, ᐃᖅᑲᐃᑦ, ᓄᓇᕗᑦ

2009-ᒥᑦ, ᐃᓚᒋᑦᓯᓂᐅᓐ ᒪᖕᒪᑐᖅᑲᑯᑦ ᓄᓇᖅᐱᒋᓪᓗᐊᖅᓯᓂᖏᒃ ᐅᐃᕐᖃᓕᓴᓂᖅᓱᑦᔪᑦ ᐱᓕᕆᐊᒥᑦ, ᑲᓇᑕᐅᐸᑦ-ᓄᓇᕗᑦᓯ ᐅᔭᖅᑲᓂᓂᖅᑐᕐᓂ ᐊᑦᓚᐃᖏᑐᒃ (CNGO) ᐊᒻᒪ ᐅᔭᖅᑲᓂᓕ ᖃᐅᔨᓴᖅᑎᑦ ᑲᓇᑕᒥ (GSC) ᖃᐅᔨᓴᓂᐊᖅᑐᑦ ᐱᓕᕆᐊᒥᑦ Melville Peninsula-ᒥ, ᓄᓇᕗᑦ. ᑐᖏᑦᓯᓯᒋᐊᕆᔭᖏᒃ ᐱᓕᕆᐊᖅ ᐅᑦᓯᒥᒍᖅᑎᑦᓯᓂᑦ ᖃᐅᔨᓴᐅᑭᐅᓂᖅᑲᓂᓕᓂᑦ ᖃᐅᔨᓴᒪᐅᓕᒃᑯᑦ ᐊᐃᑕᑐᖅᓯᒪᔪᓕᒃ. ᐱᓕᕆᐊᖅ ᐅᑦᓯᒥᒍᖅᑎᑦᓂᓂᐅᓂᐊᖅᑐᖅ ᑐᕈᓯᐅᑎᓂᑦ ᑎᑎᕐᓂᑦ ᐃᖅᑲᐅᓂᐊᖅᑎᓄᑦ ᑎᑎᕐᓂᑦ ᐃᖅᑲᐅᒪᐃᖅᑐᑦ ᑕᐅᖓᓂ, ᐊᒻᒪ ᖃᐅᔨᓴᖅᑎᑦᓂᑎᓂᐅᓂᐊᖅᑐᖅ ᑕᐅᖓᓂᐊᖅᑐᑦ ᐃᓚᐅᑦᓯᒪᔪᓕᒃᑯᑦ ᐊᐃᑕᑐᖅᓯᒪᔪᓕᒃᑯᑦ ᐃᓕᓴᐅᓂᐊᖅᑐᑦ ᐱᓕᕆᐊᖅ ᐃᖅᑲᐅᓂᐊᖅᑎᓄᑦ 8 ᑎᑭᑦᑐᒍ 10 ᐃᑲᔪᖅᑎᓂᒃ ᓴᓂᕆᔨᕐᓂᑦ. ᐃᖅᑲᓇᐃᔨᖓᔪᓕ ᐃᓕᓴᓂᐊᑎᓂᑎᓂᐊᖅᑐᑦ ᖃᐅᓂᖅᓴᖓᓂ ᑐᓴᕐᓂᖅᑐᑦ, ᐅᐱᓕᓴᐅᓂᐊᖅᑐᑦ ᐊᒻᒪ ᖃᓂᓂᖅᖃᑦ.

ᓄᓇᖅᐱᒋᓪᓗᐊᖅᓯᐅᑉᐸᖅ ᐱᔪᓐᖃᓗᐊᓂᐊᖅᑐᑦ ᒪᓕᒐᓂᒃ ᐅᖃᕆᐊᓂᒃ ᑕᐃᖅᐅᔪᓂᒃ Prince Albert ᐊᒻᒪ Penrhyn ᑲᑎᓂᖓᔪᓕ. ᑕᒪᑲᑭ ᐅᖃᕆᓂᐊᕐᓇᕆᔨᑉᐸᖅᑕᓕ. Prince Albert Group ᐊᐅᒪᒥᓂᓂᒃ ᐅᖃᕆᖏᖅᑐᑦ ᔨᓗᖏᑕᐅᓇᖅᑐᖏᒃ, ᐱᙵᕆᐃᓕᓗ (ᑲᐅ, ᔨᓂᒃ ᐊᒻᒪ ᓂᑯ) ᐊᒻᒪ ᐸᑦᑎᓇᒪᓕ ᐃᓕᓂᕐᓂᑦ ᐃᓗᓕᓂᕐᓂᑦ (PGEs) ᓄᓇᒧᑦᑐᑦ. Penrhyn Group ᔨᓗᖏᑕᐅᓇᖅᑐᖏᒃ ᐊᒻᒪ ᐅᖃᕆᑎᐊᕐᓂᓂᑦ. ᖃᐅᓂᓂᐅᕆᑦᑕᓚᐅᖅᑐᖏᒃ ᐃᓕᓴᓂᐊᒥ, ᑲᓂᕆᖅᑲᒃ ᐊᒻᒪ ᓇᐅᑦᓯᒃ ᐅᖃᕆᑦᑕᖏᑕᐅᓇᖅᑐᖏᑐᓂ ᑎᓯᓂᖅᐸᓂᑦ ᑕᐃᒪᓕᕐᓂ.

ᐃᓕᑎᐊᖅᓗᒍ ᓄᓇᖅᐱᒋᓪᓗᐊᖅᓯᐅᑉᐸᖅ, ᓄᓇᕗᑦ ᖁᑲᖏᓂᕆᑦ (ᐊᐅᔪᐃᔨᑐᒍᒫᓕᖅᑲᓕᓪᓚᕆᔪᓕᒃᑯᑦ) ᓄᓇᖅᐱᒋᓪᓗᐊᖅᑕᐅᓂᐊᕐᓇᖅᑐᑦ. ᐊᐅᔪᐃᔨᑐᒍᒫᓕᖅᑲᓕᓪᓚᕆᔪᓕᒃᑯᑦ, ᑕᐃᘐᑦᓯᐅᑉᐸᖅᑕᐅᓇᖅᑐᑦ, ᓇᓗᓇᐃᖅᑲᓇᖅᑐᑦ ᐅᖃᕆᑦᑕᓂᐊᖅᑐᓂᑦ ᓄᓇᒧᑦᑐᑦ.

ᐃᐅᑎᐊᖅᓗᒍ ᓄᓇᖅᐱᒋᓪᓗᐊᖅᓯᐅᑉᐸᖅ, 45,000-ᐊᑦᑐᓇᖅ ᖁᖏᑕᒪᓕᕆᓂᖅ ᖃᐅᔨᓴᖅᑎᑦᓯᐅᑉᐸᖅ ᖁᖏᑕᑎᑕᐅᓂᐊᖅᑐᑦ ᖃᐅᑎᖅᓯᓕᕆᔨᑦ ᓄᓇᖏᓂ ᐅᐱᖅᖏᓴᒥ (ᐃᓕᑭ - ᒪᐃ) 2009-ᒥᑦ.

ᖃᐅᔨᓴᕐᑎᓕᒫᑦ ᓴᖅᑭᖅᑎᑕᐅᓂᐊᖅᑐᑦ ᓄᓇᖅᐱᒋᔭᓂᑦ ᐊᒻᒪ ᐅᓂᒃᑲᑦ ᑲᓇᑕᐅᐸᑦ-ᓄᓇᕗᑦᓯ ᐅᔭᖅᑲᓂᓂᖅᑐᕐᓂᑦ ᐊᒻᒪ ᐊᑐᐃᓐᓇᐅᑎᑕᐅᓂᐊᖅᑐᑦ ᐃᓄᓐᓄᑦ ᐊᑐᐃᓐᓇᐅᕗᑐᑎᐊᕐᑐᒃ.

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MELVILLE PENINSULA GEOLOGICAL MAPPING: PROJECT DESCRIPTION

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In 2009, as part of the Federal Government's Geo-mapping for Energy and Minerals program, the Canada – Nunavut Geoscience Office (CNGO) and Geological Survey of Canada (GSC) will conduct a geoscience project on Melville Peninsula, Nunavut. The primary objective of the project is to update and advance geological knowledge of the region. The project will provide up-to-date information for exploration companies working in the area, and is intended to increase the level of mineral exploration and provide benefits to Igloolik, Hall Beach and Repulse Bay.

Geological mapping will be carried out over three summers (2009 – 2011). In 2009, the field crew will operate out of a helicopter supported, tent camp at the Sarcpa Lake DEW Line Station (Figure 1) and possibly, two man fly-camp(s) located approximately 150 km south of the main camp. Mapping will occur in July and August. The project will include hiring 8 to 10 field assistants from Hall Beach. The jobs will provide training in the areas of camp support, mineral prospecting and exploration.

The mapping will focus on two belts of rocks called the Prince Albert and Penrhyn groups. Both are thought to have high potential for mineral deposits. The Prince Albert Group hosts volcanic rocks that have the potential for gold, base metals (copper, zinc, and nickel) and Platinum Group Element (PGEs) deposits. The Penrhyn Group has potential for gold and gemstone deposits. Recent exploration in the Igloolik, Hall Beach and Repulse Bay region has also demonstrated the occurrences of diamonds.

In addition to mapping the bedrock, the surficial materials (glacial deposits) will also be mapped. The glacial deposits, called till, carry clues that can lead prospectors to a deposit. Thus, an understanding of the ice flow history is critical to mineral exploration in the region.

In support of the ground-based mapping, a 45,000-line kilometre aeromagnetic survey will be flown over the central part of the peninsula in the spring (April – May) of 2009.

All data will be published in the form of maps and reports through the Geological Survey of Canada and will be made available to the public as soon as they become available.

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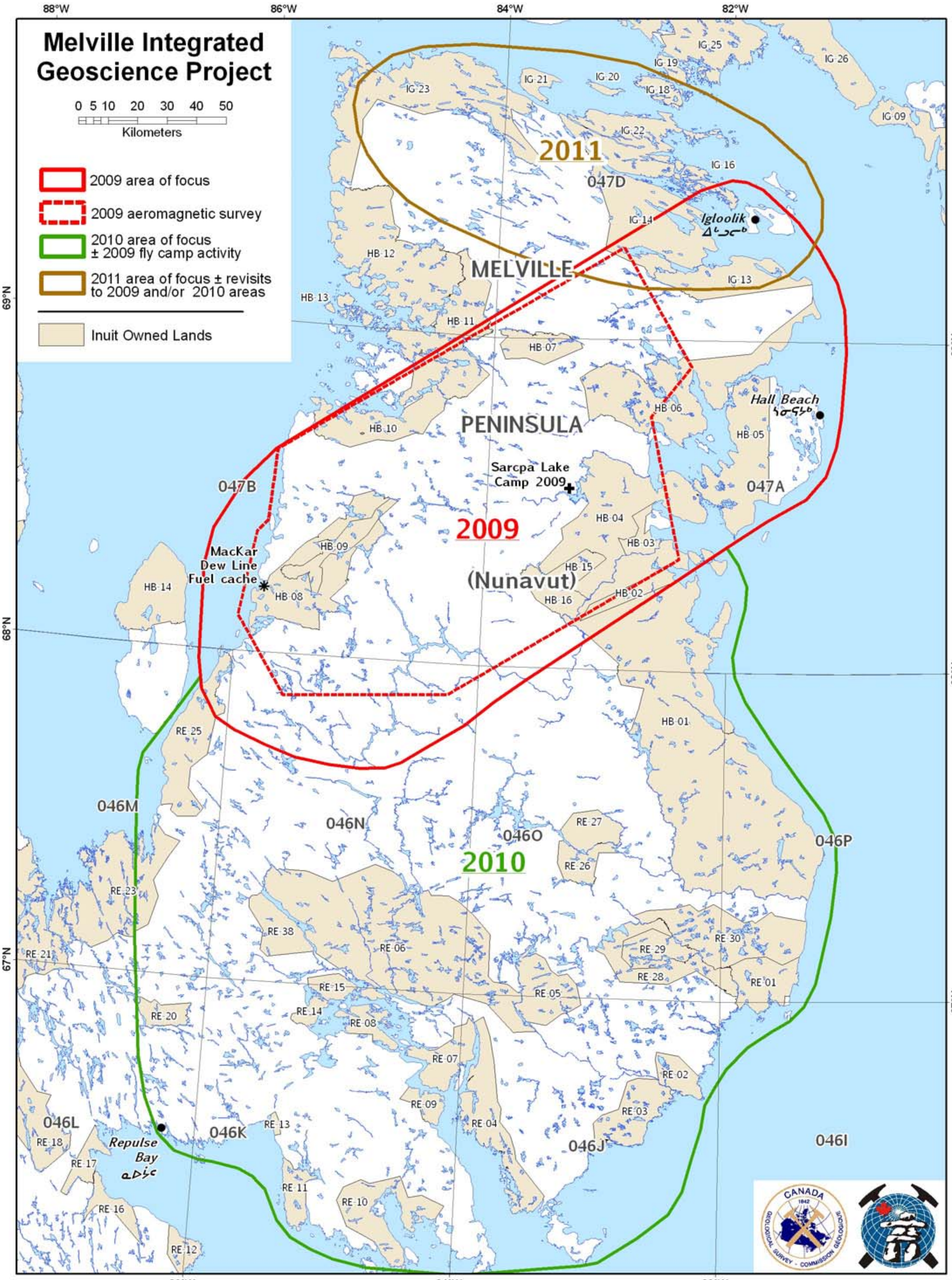
Melville Integrated Geoscience Project
0 5 10 20 30 40 50
Kilometers
2009 area of focus
2009 aeromagnetic survey
2010 area of focus ± 2009 fly camp activity
2011 area of focus ± revisits to 2009 and/or 2010 areas
Inuit Owned Lands
88°W
86°W
84°W
82°W
69°N
68°N
67°N
2011
2009
2010
MELVILLE
PENINSULA
(Nunavut)
Igloolik
Hall Beach
Sarcpa Lake Camp 2009
MacKar Dew Line Fuel cache
Repulse Bay
047D
047B
047A
046M
046N
046O
046P
046L
046K
046J
046I
CANADA
1842
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