



# 2014 COMPENDIUM OF LICENSED RESEARCH IN NUNAVUT

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## RESEARCH HIGHLIGHTS



[Arviat students study housing, routine and community with University of British Columbia](#)



[How Inuit Elders Are Preserving Their History And The Wisdom of the North](#)



[Arviat students explore research and wildlife monitoring workshop training](#)

# 2014 Compendium of Licensed Research in Nunavut

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[College and NRCan sign Memorandum of Understanding](#)

Nunavut Arctic College President Peter Ma and Natural Resources Canada Director General Donna Kirkwood signed a Memorandum of Understanding recognizing and strengthening the relationship between the two organizations this week.



[Nine Environmental Technology students receive Scholarships](#)

Congratulations to the nine Environmental Technology Program students that are recipients of this year's Technical Professional Studies Scholarship sponsored by the Government of Nunavut's Department of Community and Government Services.



[Congratulations Mary Ellen Thomas!](#)

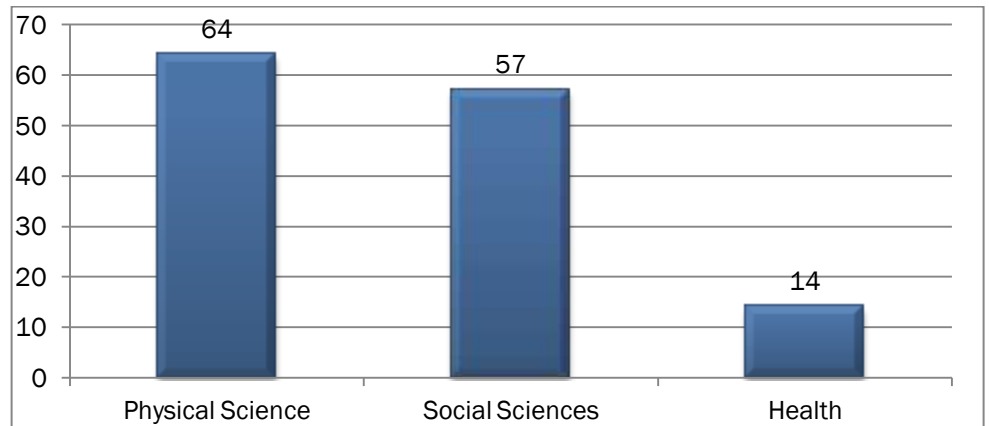
Congratulations to Mary-Ellen Thomas her 35 years of service to the Government of Nunavut (and GNWT).



**A Message from the Senior Science Officer**

2014 marked another active year for scientific research in Nunavut. NRI issued scientific research licenses for 135 projects in the health, natural and social disciplines, in accordance with Nunavut's *Scientists Act*.

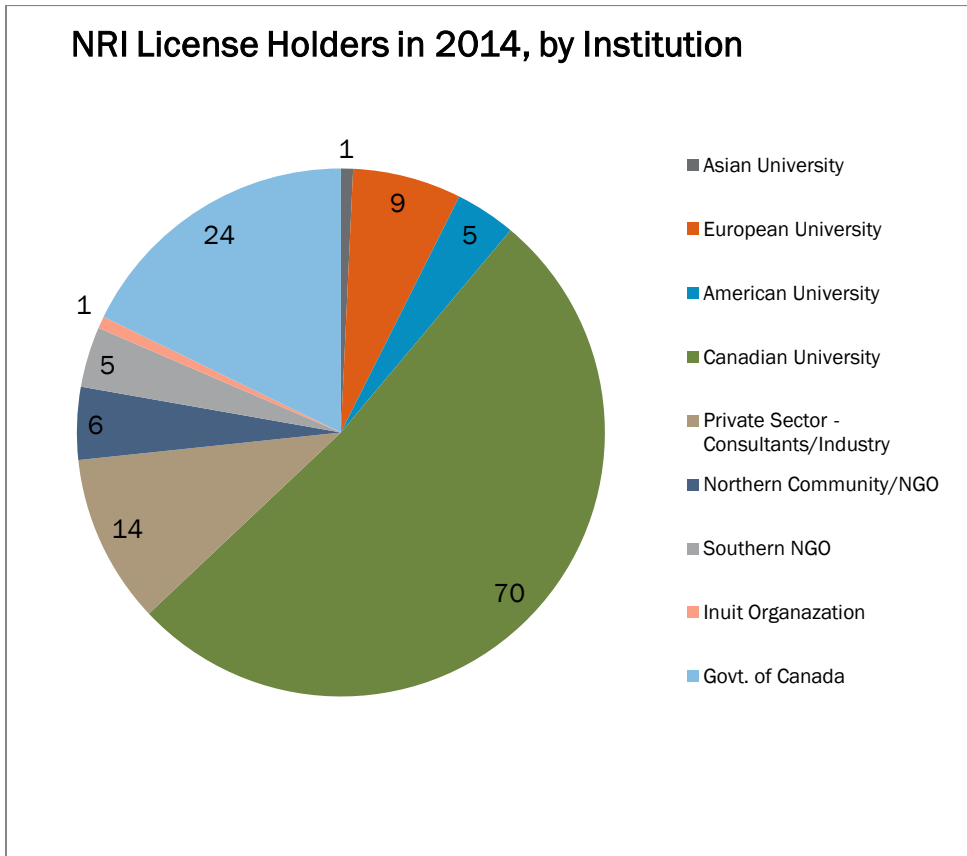
**Research Licenses Issued by NRI in 2014**



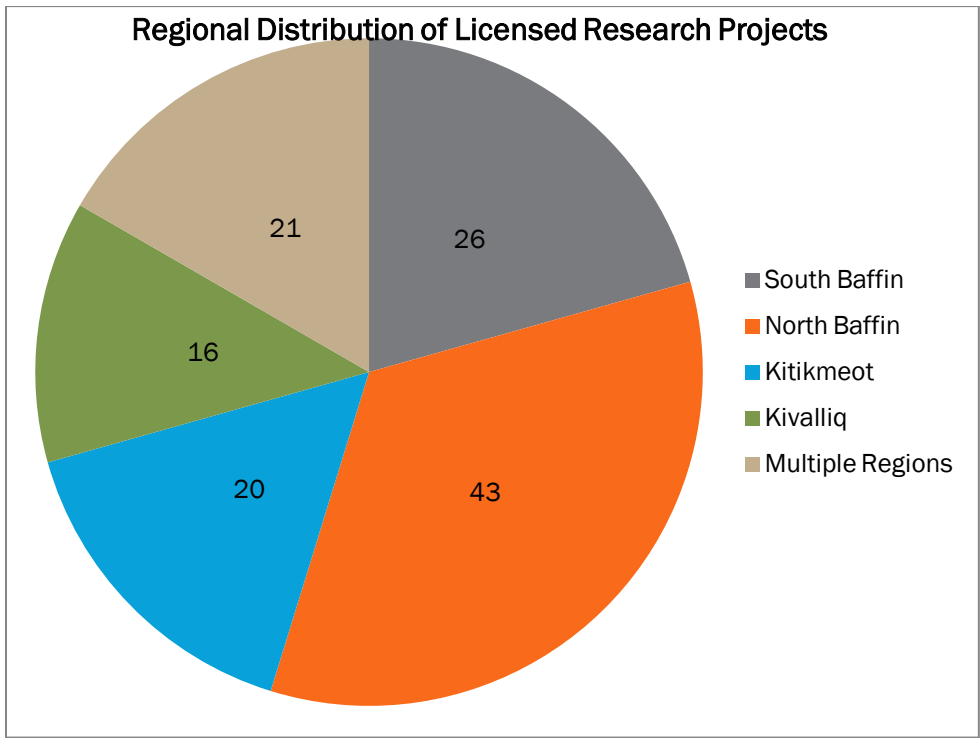
NRI licenses in 2014 were issued to researchers from Canada, the United States, Europe and Asia, representing a wide variety of government agencies, academic institutions, non government organizations, and the private sector. As in previous years, the majority of 2014 licenses (51%) were issued to researchers from Canadian Universities.

Nunavummiut were closely involved in many of the research projects licensed by NRI in 2014. Nunavummiut provide a broad range of essential support services to ensure the success of visiting scientists, and they are actively designing, initiating, and leading independent

research programs. 12 principal investigators from Nunavut received NRI research licenses in 2014 (representing 8% of 2014 licenses).



Research licenses were issued for projects in every region of Nunavut. As in past years, the majority of licensed research was undertaken in the Baffin (Qikiqtani) region. A significant portion of licensed projects involved research activity in multiple regions.



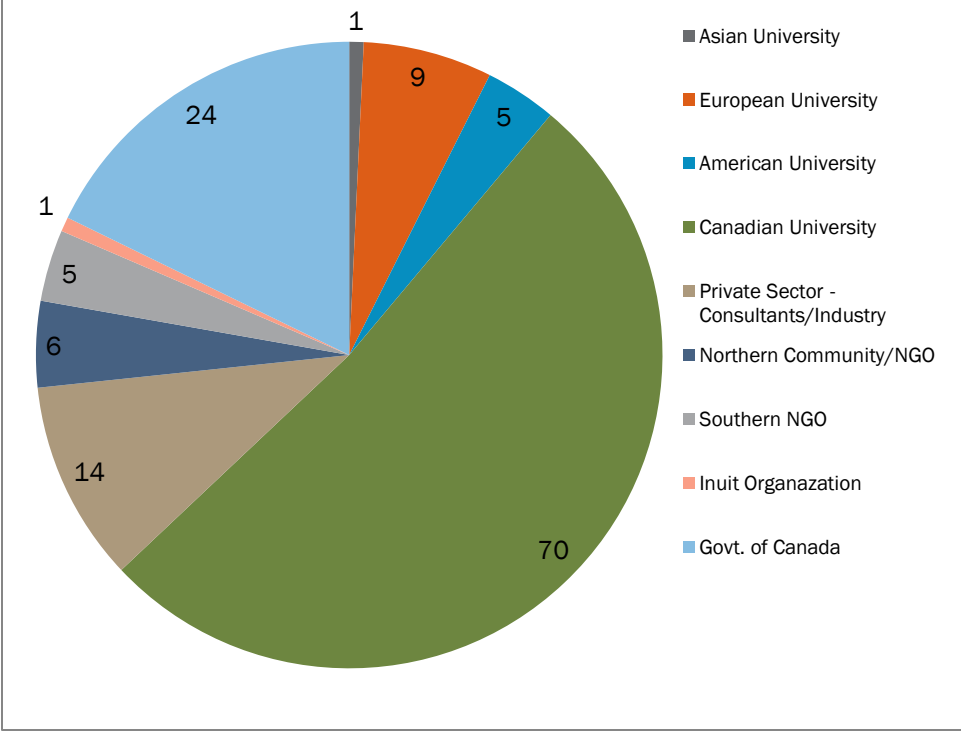
NRI will continue to keep track of licensed research projects in Nunavut to better understand trends in the scope, type, and location of research in our territory.

As one of Nunavut primary research licensing agency, NRI acts as a broker and gatekeeper for research. We work closely with Nunavut communities, Inuit organizations, government agencies and institutions of public governance to ensure that the preferences, concerns, and knowledge of Nunavummiut are appropriately reflected in research. NRI provides guidance and support to major Arctic research networks including ArcticNet, the Northern Contaminants Program, the Resources and Sustainable Development in the Arctic (ReSDA) network, and the Canadian High Arctic Research Network (CHARS). We use these relationships to help promote Nunavut’s research needs interests, and to broker research partnerships that build capacity in Nunavut. As the science division of Nunavut Arctic College, NRI is also committed to fostering opportunities for Arctic College students and faculty to engage in scientific research and training. To learn more about NRI’s responsibilities and our various programs and services, please visit our website at [www.nri.nu.ca](http://www.nri.nu.ca).

Mary Ellen Thomas  
Senior Science Officer  
Nunavut Research Institute



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ፍልጋ ስርዓቶች 2014-15**



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## 2014 LICENSED HEALTH RESEARCH IN NUNAVUT

### **Access to Primary Healthcare in Iqaluit: Component of the Evaluation of the Project for Enhanced Rural and Remote Training.**

**License Number:** 01 009 14N-M

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#### **Summary/Objectives**

The primary purpose of this study is to examine access to primary healthcare services for individuals living in Iqaluit, NU. This is a component of an evaluation of the Project for Enhanced Rural and Remote Training, an initiative of Memorial University of Newfoundland and the Government of Nunavut. This initiative provides funding for current family medicine residents to complete a portion of their residency training in Iqaluit, NU.

**Year:** 2014

**Region:** Qikiqtani

**Community/Location:** Iqaluit

**Number in Party:** 2

### **Engaging Men and Boys in Reducing Violence Against Women and Girls**

**License Number:** 05 005 14N-M

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#### **Summary/Objectives**

Pauktuutit is undertaking a two year project to increase awareness and to strengthen coping skills among Inuit men and boys in an effort to reduce gender based violence within Inuit communities. Guided by an advisory committee

composed of Inuit subject matter experts, Pauktuutit will work at the community, regional, and national level to identify issues and practical approaches to ending violence.

**Year:** 2014

**Region:** Nunavut Wide

**Community/Location:** All communities

**Number in Party:** 2

### **Factors that support the Integration and Retention of Internationally Educated Nurses in the Canadian Healthcare System.**

**License Number:** 05 010 14N-M

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#### **Summary/Objectives**

The goal of this project is to identify factors that support the successful integration, retention and career development of IEN's into the Canadian Healthcare system. This can guide potential IEN's by helping them understand how to prepare for employment as a Nurse in Canada.

**Year:** 2014

**Region:** Nunavut Wide

**Community/Location:** All communities

**Number in Party:** 7

### **Gastro-intestinal bioaccessibility of metals and metalloids in food of Canadian populations.**

**License Number:** 02 046 14N-A

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### **Summary/Objectives**

Health Canada offers guidelines on the maximal amount of certain foods that may be consumed without being exposed to high levels of contaminants. These guidelines concerns the concentration of a given contaminant measured directly in the meat. However, recent studies have shown that this measure is potentially unrepresentative of the actual exposure risk in humans. Indeed, the food we eat and goes through many transformations like cooking, ingestion with other food and digestion, which can modify the risk associated with the consumption of these pollutants. Thus the concentration of a contaminated food does not necessarily represent the fraction that will be absorbed by the body.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Resolute Bay

**Number in Party:** 2

### **Gathering Community Perspectives on Infant Sleeping Practices in Nunavut**

**License Number:** 05 002 14R-M

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### **Summary/Objectives**

Nunavut has the highest rate of infant deaths (deaths until 1 year of age) in Canada. One important cause of infant death in Nunavut is sudden infant death syndrome (SIDS), where an infant dies during sleep without an obvious cause. When this occurs, it is devastating for families. Safe sleeping practices with a newborn infant are very important and may reduce the chance of SIDS. Sleeping practices that can make a difference include the position the baby is put to sleep in and other aspects such as sleep surfaces, other people in the same bed as the baby, etc. In partnership with Nunavut Tunngavik Inc (NTI) and the Arctic

Health Research Network (AHRN), this project will hold multigenerational focus groups to explore traditional and current sleep practices (positioning, co-sleeping etc). Information from the focus groups and knowledge of Inuit cultural practices will help in development of a health promotion strategy encouraging safe sleep practices and culturally relevant Maternal Child Health practices.

**Year:** 2014

**Region:** South Baffin, Kivalliq, Kitikmeot

**Community/Location:** Arviat, Cambridge Bay, Iqaluit

**Number in Party:** 5

### **Health Behaviour in School-aged Children Study**

**License Number:** 05 006 14N-A

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### **Summary/Objectives**

The HBSC study is conducted every four years. In the 2009/10 cycle of data collection, the majority of Nunavut schools participated in the spring of 2010. The study is supported by the joint consortium for school health with membership from Nunavut Health and Education representatives. The Nunavut results were disseminated to health and education representatives in hard copy and with a formal presentation in November 2011 and will be again this cycle. A data set of results can be made available through a licensing agreement.

**Year:** 2014

**Region:** Nunavut wide

**Community/Location:** All communities

**Number in Party:** 3

### **Investigating Experiences of Sexual Health Among Inuit Youth: A Public Health Study of an At-Risk Population in Canada**

**License Number:** 03 017 14N-A

Corosky, Gregory  
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Bergen Hordaland



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### **Summary/Objectives**

This exploratory qualitative study aims to achieve a better understanding of the question: how do the cultural, social, and practical experiences of Inuit youth influence sexual health outcomes? Furthermore, this investigation aims to inform and facilitate future self-directed public health interventions for among young populations in Canada's north, and draw much needed scholarly attention to the alarming sexual health outcomes of Canada's northern indigenous youth. Data will be collected through in-depth interviews and focus group discussions with members of the Arviat community (local youth and community leaders). Data will be gathered for two and a half months (from mid-September to November 2014). Sampling will be conducted through a purposive snowball method. Since this project is an exploratory study following phenomenological research tenets, the specific discussion themes are open-ended and the interview are intended to evolve as the study progresses.

**Year:** 2014  
**Region:** Kivalliq  
**Community/Location:** Arviat  
**Number in Party:** 2

### **iPad audiometry in Canada's North: a portable and cost-effective method for hearing screening.**

**License Number:** 01 003 14N-M

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### **Summary/Objectives**

This is an opportunity for school-aged participants in Iqaluit to have their hearing tested by a validated audiometry modality. If there is any hearing deficit present, a follow up visit with both an audiologist and an Otolaryngologist will be offered for confirmation and workup of the hearing loss.

This is also an opportunity to advance health research specific to the children of Canada's north. This population is at risk for middle ear disease and subsequent hearing loss. Due to the remote location of Nunavut and the subsequent difficulties in providing medical care, childhood ear pathology often presents late or is missed entirely. This results in significant language delay, as well as other serious sequellae of ear disease.

Our hope is to not only improve our understanding of hearing loss in this population, but also detect hearing conditions much earlier. This would enable for earlier treatment and therefore less morbidity from hearing-related disorders.

**Year:** 2014  
**Region:** Qikiqtani  
**Community/Location:** Iqaluit  
**Number in Party:** 2

### **Nursing Practice in Rural and Remote Canada II.**

**License Number:** 05 007 14N-M

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### **Summary/Objectives**

The purpose of this study is to better understand the nursing workforce and nursing practise in rural/remote Canada. In order to achieve this goal, a nation wide survey will be conducted with registered nurses (RN's) and nurse practitioners (NPs), licensed practical nurses (LPNs) and registered psychiatric nurses (RPNs) in rural/remote Canadian communities in all provinces and territories, in primary care, acute care, community health, home care, mental health and addictions, and long term health care settings. By better understanding nurses' perspectives and practices, health care planners and policy makers can work to improve the capacity of nursing services (nursing personnel, their activities and organization) and consequently, acces to care in rural/remote Canada The research will not be

undertaken in conjunction with or in support of any proposed programs in Nunavut.

**Year:** 2014

**Region:** Nunavut Wide

**Community/Location:** All Communities

**Number in Party:** 4

**Oncogenic drivers of lung cancer among Canadian Inuit: a retrospective histological and molecular analysis.**

**License Number:** 05 003 14Registry

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**Summary/Objectives**

Cancer is quickly becoming a major health concern among Canadian Inuit in Nunavut, with lung cancer representing more than one third of all cancer diagnoses. Inuit experience a number of barriers in accessing cancer treatment services, given their remote location. With the recent development of oral targeted therapies, some lung cancer patients may be eligible for treatment in the community based on the molecular characteristics of their tumour or "biomarkers". Determining the molecular characteristics of lung cancer among Canadian Inuit would inform policy and identify opportunities for personalized therapy in the community.

**Year:** 2014

**Region:** Nunavut

**Community/Location:**

**Number in Party:** 7

**Review of Medical Travel in Nunavut and the Northwest Territories.**

**License Number:** 01 005 14N-Mregistry

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**Summary/Objectives**

Health care in Canada's north faces considerable challenges with its remote and widely dispersed population, harsh environmental conditions and thinly deployed health professionals. Despite per capita expenditures that are amongst the highest in the world, health outcomes continue to lag behind the rest of Canada, and health disparities between the aboriginal and non-aboriginal population within the north continue to persist.

**Year:** 2014

**Region:** Nunavut Wide

**Community/Location:** Iqaluit

**Number in Party:** 3

**Should Newborn Screening Be Initiated in Nunavut for Mild CPT1 (Carnitine Palmitoyl Transferase -1) Deficiency?**

**License Number:** 05 001 14R-M

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**Summary/Objectives**

CPT1 deficiency is caused by a genetic change (mutation) in the Carnitine Palmitoyl Transferase-1 gene. This gene normally produces a protein that is involved in producing energy from the fats we eat. We all have two copies of this gene (all of our genes come in pairs) as we inherited one copy from our mother and one copy from our father. People who have a mutation in both copies of their CPT1 gene produce a protein that does not work properly. These individuals have trouble producing energy from fats. The mutations do not usually affect people in day to day life, because we get most of the energy we need by breaking down sugars from our food rather than fats. However, when we get sick or are not eating enough food for other reasons our bodies start to break down our fat

stores for energy. Thus, individuals (particularly infants) who have CPT1 mutations in both copies of the gene can run into health problems during periods of illness or fasting because they cannot produce enough energy from fats. The result may be low blood sugar (hypoglycemia) and seizures or, in the worst-case scenario, unexpected sudden infant death.

**Year:** 2014

**Region:** Nunavut Wide

**Community/Location:**

**Number in Party:** 4

**Tukisinirlungniq: Understandings of the Risks and Benefits of Consuming Beluga in Arviat, Nunavut.**

**License Number:** 03 018 15N-M

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**Summary/Objectives**

Nunavut reports the highest level of food insecurity among an indigenous population outside the developing world (Egeland et al., 2010). Nearly 70% of all homes in which children live in Nunavut are challenged in some way in the context of having safe and secure access to adequate amounts of nutritious food on a daily basis. Currently, the Inuit diet is comprised of both elements from the local environment and those things transported long distances to the north and purchased from local

stores. With increasing climate change and variability, reports of challenges to household food security are not uncommon in Nunavut and other Arctic regions.

**Year:** 2014

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 3

**Walking the Prevention Circle: Researching Community Capacity Building for Violence Prevention.**

**License Number:** 01 035 14N-M

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**Summary/Objectives**

Our research purpose is to conduct community based research on the Canadian and Australian Red Cross Societies' Walking the Prevention Circle (WTPC)-a program for building community capacity for promoting healing and preventing violence in Aboriginal communities. This research will help us understand how communities implement WTPC and will also help us learn about ways in which WTPC is effective in enabling communities to build capacity and bring about positive changes.

**Year:** 2014

**Region:** Baffin, Kivalliq

**Community/Location:** Arviat, Cape Dorset

**Number in Party:** 3

## 2014 LICENSED PHYSICAL SCIENCES RESEARCH IN NUNAVUT

### 2014 Back River Project Baseline Program

**License Number:** 04 012 14N-M

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#### Summary/Objectives

Sabina Gold and Silver Corp. (Sabina) is in the process of permitting the proposed Back River Project (the Project), located in the West Kitikmeot region of Nunavut. Rescan has been conducting baseline studies to support this project on behalf of Sabina for the past several years. A draft Environmental Impact Statement will be submitted to the NIRB in early 2014. It is anticipated that all required baseline information has been collected for the proposed project, but information gaps could be identified during the regulatory process. Additional field studies may also be required to support potential changes and refinements to engineering studies.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** George Camp, Goose Camp

**Number in Party:** 13

### 2014 Hackett River Environmental Baseline Program

**License Number:** 04 001 14R-M

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#### Summary/Objectives

Xstrata Zinc Canada (Xstrata) is exploring significant metal deposits near Hackett River in the

Kitikmeot Region of Nunavut. Xstrata is also involved in leading the submission of an updated Draft Environmental Impact Statement (DEIS) for the Bathurst Inlet Port and Road (BIPAR) Project. Xstrata is committed to support on-going exploration activities in the Kitikmeot Region, and would like to continue baseline studies in the area for potential future development.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Hackett River, BIPR (proposed road route)

**Number in Party:** 18

### 2014 Hope Bay Belt Environmental Baseline Program

**License Number:** 04 004 14R-M

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#### Summary/Objectives

TMAC Resources Inc. is exploring significant metal deposits near Hope Bay, Melville Sound, Nunavut. The Doris North Gold Mine Project is currently under construction and is anticipated to move into operations in 2013. TMAC Resources Inc. is committed to support on-going exploration activities in the Hope Bay Belt, and would like to continue baseline studies in the area for potential future development. A map of the Hope Bay Belt area is included with this proposal. The majority of the sampling would be restricted to potential deposit areas, access corridors and from reference areas. Sampling could also be conducted in the marine environment for potential future marine access.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Hope Bay Belt  
**Number in Party:** 16

**A latitudinal investigation of ecosystem sensitivity to methylmercury bioaccumulation in Arctic fresh waters**

**License Number:** 02 012 14R-M

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**Summary/Objectives**

Mercury is a priority contaminant of the Northern Contaminants Program (NCP) due to its prevalence in the Arctic and high levels found in some traditional food species. The main objective of this project is to investigate how climate affects methylmercury (MeHg) bioaccumulation in Arctic lakes.

The study design involves a comparison of MeHg bioaccumulation in three study areas along a latitudinal gradient in climate-controlled ecosystem types in the Canadian Arctic, specifically sub-Arctic taiga (Kuujuarapik, Nunavik), Arctic tundra (Iqaluit) and polar desert (Resolute Bay). Building on work conducted at Kuujuarapik in 2012, we propose to conduct a summer field program in 2013 at Iqaluit and in 2014 at Resolute Bay. In lakes and ponds, we will investigate key aspects of MeHg bioaccumulation—MeHg bioavailability to benthic food webs and organism growth rates—as well as how watershed characteristics affect the transport of mercury and organic carbon to water bodies. This information is critical for understanding how climate change is affecting temporal and geographic trends of Hg bioaccumulation in NCP-monitored fish.

**Year:** 2014

**Region:** North & South Baffin

**Community/Location:** Iqaluit, Resolute Bay

**Number in Party:** 5

**Acoustic study of marine mammals and ambient noise in Barrow Strait**

**License Number:** 02 048 14R-M

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**Summary/Objectives**

This project seeks to understand the seasonal presence and acoustic behavior of marine mammals in Barrow Strait by conducting autonomous, long-term acoustic recording at a site south of Griffith Island.

Recordings will be compared to acoustic data collected in the 1980s by Canadian wildlife biologist, Dr. Ian Stirling, near the site (Calvert and Stirling 1985, Kingsley et al. 1985). Analyses will investigate changes in the behavior and presence of the animals over the past 30 years. Ambient noise will be characterized and quantified to provide a baseline description of the underwater acoustic environment.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Barrow Strait

**Number in Party:** 5

**Air Quality Monitoring at Cape Dorset**

**License Number:** 01 004 14R-M

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**Summary/Objectives**

Shipping and mining activities are expected to increase significantly in Nunavut over the coming decades. These activities bring with them an increase in air pollution. On one hand, we know that Nunavut is a very large place and that because

of dilution, air pollution will never reach the levels it does in southern Canada. On the other hand, the environmental conditions are very different: it is much colder, there is less precipitation and an increase in air pollution may have a larger effect than it would in the south. To keep track, Environment Canada is developing air quality control programs, similar to those producing weather forecasts, which will forecast air pollution levels for the future.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Cape Dorset

**Number in Party:** 4

**Airborne Geophysical Investigations of conditions at the bed of fast-flowing outlet glaciers of large Canadian Arctic Ice caps**

**License Number:** 02 026 14N-A

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**Summary/Objectives**

The purpose of this project is to gather data about the conditions underneath and around the glaciers flowing out of large islands of the Canadian Arctic in order to model and understand the actions of these glaciers now and in the future. These glaciers are important for understanding the ice caps of the islands and how the ice caps are changing. Types of information to be gathered about the glaciers are: the thickness of the ice, the nature of the sediment and/or rock under the ice, the amount of melt water there is in channels or sheets. This information will be used to improve the computer models of the islands' icecaps.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Ellesmere Island, Devon Island, Axel Heiberg Islands

**Number in Party:** 7

**Airborne Observations in support of NETCARE (NETwork on Climate and Aerosols: Addressing Key uncertainties in Remote Canadian Environments).**

**License Number:** 02 043 14N-M

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**Summary/Objectives**

NETCARE is a network project of the Canadian Climate and Atmospheric Research program of the Natural Sciences and Engineering Research Council of Canada (NSERC-CCAR) led by Professor Jonathan Abbatt at the University of Toronto and funded until 2018. The impact of aerosols on remote environments is poorly understood, hindering the ability of climate models to make accurate regional and global scale predictions. NETCARE brings together academic and government scientists to tackle climate related issues to aerosols. The network will use comprehensive measurements and modelling to identify the sources and impacts of aerosols, especially black carbon.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Resolute Bay, Pond Inlet, Nanisivik

**Number in Party:** 24

**An investigation of the sensitivity of high Arctic permafrost to climate change**

**License Number:** 02 008 14R-M

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**Summary/Objectives**

This project looks at the impact of climate change on high arctic permafrost conditions and high arctic landscapes. The aims of this project are: (1) to monitor climate conditions for different types of landscape (eg tundra, mountains, coasts, wetlands ...) and assess how much the climate is changing, (2) to determine the amount and rate of landscape change caused by warming and melting permafrost, and (3) to map these changes from for the period 2007-2011. The information collected in this study will improve our general understanding about climate and permafrost as well as help to predict how the land will respond as climates warm. This study also contributes new information about high Arctic permafrost and ground ice conditions, the sensitivity of high arctic permafrost to climate change and background data upon which landscape changes can be documented. Another component of this project looks at long-term changes in high Arctic landscapes by looking at how rock surfaces are being weathered and eroded. This research will help northerners understand how landscapes are changing and will change in the future.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Ellesmere Island, Axel Heiberg Island

**Number in Party:** 10

#### **Angilak Project 2014 Environmental Monitoring Program**

**License Number:** 03 003 14R-M

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#### **Summary/Objectives**

We will be monitoring the environmental components in the Kivalliq area to define baseline conditions. The ultimate goal is to ensure the Kivalliq's activities do not have negative residual impacts on the environment in Nunavut. Also, as

the monitoring program grows we will seek to identify more Inuit employment opportunities.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Nutaaq Camp

**Number in Party:** 3

#### **Arctic Freshwater Biodiversity in Cambridge Bay.**

**License Number:** 04 019 14N-A

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#### **Summary/Objectives**

A major factor of Arctic landscapes is their large number of lakes and ponds, which in some regions can cover up to 90% of the total surface area. In its entirety, the Arctic has been referred to as "the world's largest wetland. These numerous lakes and ponds provide important spawning and rearing habitat for fish species important as food for northern communities, especially char and lake trout. They also contribute significantly to Arctic biodiversity and can be viewed as oases in the tundra. The objectives of this project are to document the Arctic freshwater biodiversity in Cambridge Bay, to identify the variability in essential indicators of/for freshwater ecosystems that are suited for biodiversity assessment, and to measure abiotic parameters that are relevant to freshwater biodiversity.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Cambridge Bay

**Number in Party:** 3

#### **ArcticNet marine-based research program: Integrated Regional Impact Study of the**

**Canadian High Arctic.**

**License Number:** 05 012 14R-M

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### **Summary/Objectives**

The main objective of the proposed research program is to assess the changes occurring in the Canadian Arctic coastal marine ecosystem in response to climate warming. Using the Canadian research icebreaker CCGS Amundsen to access the vast expanses of the coastal Canadian Arctic, sampling operations in Nunavut waters in 2013 are scheduled to take place between 01 August and 13 October. The ArcticNet marine-based research program is however a long-term program scheduled to run every year until 2018. Shipboard sampling will be carried out along the ship track and at designated sampling stations in Hudson Strait, Baffin Bay, Lancaster Sound and the Northwest Passage. Shipboard operations will include mapping the ocean floor with sounding technologies, using a fish finding sonar to assess the distribution of important fish species, measuring meteorological parameters and sampling seawater, sediment, sea ice, plankton and juvenile fish.

**Year: 2014**

**Region:** North & South Baffin, Kitikmeot

**Community/Location:** All Communities within North & South Baffin and Kitikmeot

**Number in Party:** 41

**Assessing the impact of small, Canadian Arctic river flows to the freshwater budget of the Canadian Archipelago.**

**License Number:** 04 008 14N-M

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### **Summary/Objectives**

There are two primary goals of this project. Determine whether relatively small Canadian Arctic rivers significantly contribute to the total volume of freshwater that drains through Davis Strait and if they are chemically distinct from larger North American rivers such as the Mackenzie and Yukon rivers. To achieve these goals we propose to collect water samples from seven different rivers and their estuaries spanning over Nunavut and the Northwest Territories over a three year study period.

**Year: 2014**

**Region:** Kitikmeot, North Baffin

**Community/Location:** Clyde River, Coppermine River, Ellice River, Back River, Cunningham River

**Number in Party:** 7

**Assessment of environmental vulnerability to warming permafrost.**

**License Number:** 01 019 14R-M

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### **Summary/Objectives**

This work is part of the ongoing assessment of the permafrost conditions taking place at the Iqaluit International airport since 2010. The purpose of this project is to assess the environmental vulnerability to warming permafrost. In more details, the work proposed is to validate remote sensing images by ground truth observations. The remote sensing data are providing ground surface displacement related to thaw settlement.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Iqaluit

**Number in Party:** 3

**Baffin Island Weather Monitoring Project**

**License Number:** 01 001 14R-M



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### **Summary/Objectives**

Due to unpredictable variables, exploration, mining and other operations in Canada's Far North must not only deal with extreme weather but a climate influx because of global processes. Weather monitoring is especially important for day-to-day operations at a remote exploration camp, for seasonal planning and for evaluating weather-related risks. However, in such an extreme and remote environment, collecting environmental data is a daunting task. Automated sensors are an ideal solution, as they can survive and operate under extreme conditions, even when staff is not present to download information. In order to research climate change in the Far North, meteorological stations are essential. During this research project, Symbotiware Incorporated of Sudbury, ON, will collect weather data for Peregrine Diamonds Ltd. at its Chidliak Project in its centrally located Discovery Camp on the Hall Peninsula, approximately 120km north of Iqaluit, NU. The data collected will be used by Dr. Charles Ramcharan of Laurentian University in Sudbury, ON, for climate change research.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Hall Peninsula

**Number in Party:** 3

### **Barrow Strait Real Time Observatory**

**License Number:** 02 039 14R-M

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### **Summary/Objectives**

The goal of this project is to provide a real time ice and ocean data delivery system that includes an

ice onset and break-up prediction capability in Barrow Strait at the eastern end of the Northwest Passage. It will provide an ability to monitor and predict the evolution of the ice cover for the improved safety and efficiency of Arctic marine operations, make ice cover data and ocean measurements available to hunters and other interested parties, provide data for ice/ocean forecast models, and provide a technology that is applicable to other strategic Arctic locations.

**Year: 2014**

**Region:** Qikiqtani

**Community/Location:** Barrow Strait

**Number in Party:** 4

### **Cambridge Bay Undersea Observatory.**

**License Number:** 04 007 14R-M-Amended

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### **Summary/Objectives**

Underwater sensors and a camera provide continuous information on seawater properties, ice thickness and marine organism activity. Data from the underwater instruments and the weather station are transmitted by a WiFi link to a server in the Nunavut Government building, where data are transmitted via satellite to our ONC data centre at the University of Victoria and made available to all. We also plan to collect seawater and mud samples in the vicinity of the platform to calibrate our instruments. We would also need to collect specimens of seafloor life (invertebrates) around the platform so our experts can identify the species we are observing.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Cambridge Bay

**Number in Party:** 3

## **CANDAC – Canadian Network for the Detection of Atmospheric Change**

**License Number:** 02 016 14R-M

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### **Summary/Objectives**

Canadians have a special responsibility for their sovereign Arctic territory. The unique environmental conditions – extreme cold, low humidity and seasonal daylight variations – give rise to unusual climate and chemistry processes, many of which are poorly understood. Gaps in our scientific knowledge of the Arctic impair our ability to effectively steward Canada's North. This lack of knowledge has serious social, environmental and biodiversity implications.

In 2002 a group of researchers joined together to form the Canadian Network for the Detection of Atmospheric Change (CANDAC) with the objective of improving the state of observational atmosphere research in Canada.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Eureka

**Number in Party:** 13

## **CASE 16 - Alexandra Fiord**

**License Number:** 02 024 14N-M

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### **Summary/Objectives**

Since the beginning of Earth's history, the development of our planet is dominated by change and evolution. Especially the continents and

oceans changed and drifted through time, and the recent geography of our world is just a snapshot of a long development: some 90 million years ago, there was no Arctic Ocean and no North Atlantic, and North America, Europe and Asia have been unified within a large, ancient landmass called Laurasia. The major task of the BGR-project CASE (Circum-Arctic Structural Events) is the examination of the recent circum-Arctic continental margins and the processes who resulted in the break-up of Laurasia and finally in the formation of the Arctic Ocean.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Ellesmere Island

**Number in Party:** 15

### **Characterizing the ecology of aquatic systems in the Iqaluit area.**

**License Number:** 01 012 14N-M

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### **Summary/Objectives**

The Canadian Arctic contains a vast multitude of lakes and ponds which have served as important sources of food and freshwater for indigenous peoples and which continue to yield valuable scientific information about environmental conditions. Ecosystem structure and functioning in Arctic aquatic systems are expected to change under the influence of human induced climate change and other human impacts. However, much remains unknown about the current composition of these communities. The object of the research is to access the biological and limnological characteristics of Arctic lakes and streams in Nunavut, Canada.

**Year:** 2014

**Region:** Qikiqtani

**Community/Location:** Iqaluit & Surrounding Area  
**Number in Party:** 2

**Chert Sourcing and Palaeo-Eskimo Stone Tool Technology**

**License Number:** 01 014 14R-M

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**Summary/Objectives**

Archaeologists refer to the original inhabitants of the Arctic as Paleo-Eskimos, and chert or ammaaq was the most common type of stone they used to make their stone tools. However, we know very little about how these people acquired this stone, when, and from where exactly. In the interior of Baffin Island, oral histories have long attested to the presence of chert in the region. Amadjuak Lake, or Ammaaq Lake, is an important place to find chert and our previous research in the area has identified widespread surface scatters of this stone thereby confirming its presence in the area. If we can locate the precise geological sources of ammaaq in the interior region, it will help us reconstruct how people were moving across the landscape throughout the entire southern Baffin region.

**Year:** 2014

**Region:** South Baffin

**Community/Location:** Amadjuak Lake, Mingo Lake

**Number in Party:** 5

**Clearwater Fiord Nunavut Aeromagnetic Survey.**

**License Number:** 01 031 14N-M-Amended

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**Summary/Objectives**

The purpose of this survey is to acquire high resolution aeromagnetic data to inform land management decision by land owners, governments and industry. Aeromagnetic surveys measure magnetic properties of bedrock and are an important tool in geological mapping. The bedrock may contain mineral deposits such as carving stone, gold, copper, lead, zinc and diamonds. Understanding the geology will help geologists map the area, assist mineral exploration activities and provide useful information necessary for communities, Inuit associations and government to make land used decisions. It will be used to support new ground based geological mapping in the area and all information produced will be made publically available.

**Year:** 2014

**Region:** South Baffin

**Community/Location:** Clearwater Fiord

**Number in Party:** 3

**Climate Change and the Arctic Archaeological Record::An Archaeo-Geophysical Approach to Assess Site Stability and Predict Future Impact.**

**License Number:** 01 028 14N-M

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**Summary/Objectives**

This research has four objectives. One is to test the geophysical instrumentation in an Arctic Archaeological context to determine its suitability for this kind of on the ground research into permafrost. Two is to evaluate the current stability if the permafrost across the entire LbDt-1 site and determine if it varies with the natural and cultural topography, in order to gauge whether any areas of the site are at differential risk. If differences in the permafrost are found within the LbDt-1 site. If they can be associated with topographic or cultural

features, then the third objective will be to use that information to develop a predictive model identifying vulnerable parts of similar sites. Fourth objective is to contribute data on permafrost stability from an area not presently monitored by climate scientists.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Hone River

**Number in Party:** 8

**Climate change effects of a changing cryosphere on Northern lakes**

**License Number:** 02 019 14R-M

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**Summary/Objectives**

Climate change is projected to cause significant change to arctic aquatic ecosystems. Changes in the thickness and composition of Arctic lake ice covers will produce second order impacts on lake biological productivity and ecology. The most important effects are likely to result from changes in temperature (ice growth) and precipitation (ice cover composition). While a number of models have been developed to model these changes, their validation has been stalled by lack of relevant field data. Relevant field data has been gathered annually since 2009. In 2014, the objective is to repeat surveys at the above noted lakes with the assistance of local contractors or agencies. The proposed completion dates for the surveys at the lakes is between May 1 and June 30, 2014. Specific dates will be determined based on contractor/agency availability.

**Year: 2014**

**Region:** North Baffin/Kitikmeot

**Community/Location:** Cornwallis Island, Axel

Heiberg Island, Victoria Island, Ellesmere Island,

Queen Maude Gulf, Grenier Lake

**Number in Party:** 6

**Cretaceous High Arctic Paleoenvironmental and Paleoclimate Change.**

**License Number:** 02 034 14N-M

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**Summary/Objectives**

The purpose of our study is to develop a biostratigraphic scheme using small marine microfossils and correlate their occurrences with a framework based on chemical parameters such as carbon isotopes measured on sediments, and to understand ancient marine passageways that connect the Sverdrup Basin during Cretaceous time and with that, revise existing paleogeographic maps. An improved understanding of the past will allow us to project how the present Arctic Ocean might change as the earth continues to warm.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Glacier Fiord, Lost Hammer

Diapr, Slidre Fiord

**Number in Party:** 4

**Disappearing Ice Caps**

**License Number:** 02 011 14R-M

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**Summary/Objectives**

Our primary goal is to understand how climate is changing now and has changed in the past. We address these two questions by collecting tundra plants exposed by the melting of ice caps. We can determine how old the plants are by radiocarbon

dating, which tells us when the ice cap formed, and how long ago it was that the summers were as warm as a present.

**Year: 2014**

**Region:** North & South Baffin

**Community/Location:** North & South Baffin Island

**Number in Party:** 6

### **Dynamics and Change of the Devon Ice Cap**

**License Number:** 02 005 14R-M

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### **Summary/Objectives**

**Project Description:** The project goal is to describe and explain ongoing changes in the area, mass and flow of the Devon Island ice cap so that we can estimate its recent current and future contribution to changes in global sea level. We are interested in how climate warming may cause faster flow of glaciers that end in the ocean, and how faster flow may lead to more mass loss by iceberg calving. Our work combines field studies with satellite and airborne remote sensing, and with modeling of ice cap flow and interactions with the atmosphere. Our fieldwork involves calibrating and validating measurements made by remote sensing and measuring changes in ice thickness, snow properties, glacier flow, meltwater production and runoff, and rates of iceberg calving. It provides us with data that we can use in our models. We access the ice cap from Resolute Bay by PCSP Twin Otter or helicopter, and travel on the ice by snowmobile or helicopter. Each year we establish a base camp on the ice cap summit where we store food, equipment and fuel. Most work is carried out from mobile 2-person camps. We install some instruments on or adjacent to the ice, but all will be removed at the end of the project so that the ice cap is left as we found it.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Devon Island

**Number in Party:** 4

**Environmental Baseline Data Collection, Meliadine Gold Project, Agnico-Eagle Mines Ltd.**

**License Number:** 03 004014R-M

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### **Summary/Objectives**

The purpose of the project is to collect baseline data in support of an Environmental Impact Statement being prepared for the Meliadine Gold Project. The goal is to collect sufficient information to characterize the “before development” of areas likely to be impacted by the development of the mine.

Local roads will be used in Rankin Inlet to access the Itivia barge landing area with a boat and driver rented in town. An Inuit assistant will be hired to participate in sample collection.

The Meliadine site is 25 northwest of Rankin Inlet. A helicopter contracted for exploration activities and located at the Meliadine site will be used to access areas to be sampled in the vicinity of the mine development. An Inuit Assistant will provide support in taking samples and at the same time learn various sampling techniques.

The existing Meliadine exploration camp will be used for accommodation as will a hotel in Rankin Inlet. A reclamation plan has been filed for the Meliadine camp with the Nunavut Water Board.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Meliadine

**Number in Party:** 2

### **Formation and preservation of elemental sulfur in springs relevant to Mars and Europa.**

**License Number:** 02 031 14N-A

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#### **Summary/Objectives**

The purpose of this study is to learn what controls the source and chemistry of a spring that discharges water with sulfide gas from a glacier at Borup Fiord. A key question is what microbes live in the water and in the minerals next to the spring. We are also interested in mineral deposits that have formed from ancient springs hundreds to thousands of years ago in almost the same location. Knowledge gained at Borup Fiord will help understand the interaction between water, rocks and life on Earth and other planets such as Mars and Jupiter's moon Europa.

**Year:** 2014

**Region:** Qikiqtani

**Community/Location:** Borup Fiord

**Number in Party:** 6

### **GEM-2 Montresor Belt Field Study.**

**License Number:** 04 014 14N-M

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#### **Summary/Objectives**

The project will produce geological maps of a remote part of the Kitikmeot region, as part of the Geo-Mapping for Energy and Minerals program—designed to upgrade the geoscience knowledge base across Canada's North to modern standards. Last mapped in the early 1980's the region lacks modern geoscience information that can be used

by communities, industry, and government to make land use decisions. In addition to better baseline information, the work will provide an indication of the mineral potential of the region.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Montresor Belt

**Number in Party:** 4

### **Geological and Geochemical Investigation of the Overby-Duggan Lake Region, Nunavut.**

**License Number:** 04 013 14N-A

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#### **Summary/Objectives**

Phase 2 of the federal Geo-mapping for Energy and Minerals (GEM) program (2013-2020) is providing public geoscience knowledge for Canada's North. The knowledge will be used for land use decisions by government and for exploration investment decisions by industry. This project aims to improve knowledge of an area last mapped in part in 1962 and in part in 1981.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Duggan Lake, Overby Lake

**Number in Party:** 16

### **Geological survey of Kent Peninsula, Melville Sound, and Elu Inlet.**

**License Number:** 04 015 14N-M

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#### **Summary/Objectives**

The second phase of the federal Geo-Mapping for Energy & Minerals (GEM) program (2013-2020) and the new Canada-Nunavut Geoscience Office's new Geoscience Program (2014-2016) will aim at generating new public geoscience knowledge for Northern Canada. This proposed project is focused on improving the understanding of an area last mapped in the late 1970s in the Kitikmeot region and specifically along the Kent Peninsula, Melville Sound and Elu Inlet. The study area is located 50-70 km southwest of Iqalukutiak (Cambridge Bay).

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Kent Peninsula, Melville Sound, Elu Inlet

**Number in Party:** 4

#### **Geoscientific project to study gold mineralization at the Meadowbank mine and Meliadine**

**License Number:** 03 002 14R-M

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#### **Summary/Objectives**

This study will help improve our ability to predict the locations of mineralization and thus reduce the economic risks of exploration in Canada's North. We will also try to determine why some formations are barren while others are fertile (gold bearing). Nunavut deposits give us the opportunity to study this important scientific question by looking simultaneously at various gold deposits in an integrated study.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Meadow Bank Mine, Meliadine Deposit

**Number in Party:** 6

#### **Geoscientific project to study the application of optical spectroscopic remote sensing to detection**

#### **of the base metal mineralization in the Izok Lake deposit area.**

**License Number:** 04 002 14R-M

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#### **Summary/Objectives**

Collect remotely sensed data (data gathered while not touching an object) consisting of light reflected back from the surface of rock outcrops and existing drillcores. These data will then be analyzed and compared with their mineralogy. This study will help determine if this type of remotely sensed data can be used to improve our ability to discover concealed mineral deposits and therefore reduce the economic risks of exploration in Canada's North. The Izok lake deposit is ideal because the surrounding area has very little vegetation that could disturb the data reflected back from the rocks.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Izok Lake Deposit

**Number in Party:** 9

#### **Glacier Mass Balance and Pollution Studies in the Canadian high Arctic**

**License Number:** 02 002 14R-M

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#### **Summary/Objectives**

This is an ongoing study aimed at monitoring the mass balance and pollution levels of the Melville, Meighen, Agassiz, Devon ice caps, and the Grise Fiord Glacier. An additional component to this work will be to measure variations in flow rates of 3 glaciers on the Devon ice cap in order to

understand how these glaciers will respond to future climate warming. Transportation at each site will be by snowmobile or helicopter where requested.

#### I. Glacier mass balance

Meteorological data will also be collected from the 11 automatic weather stations deployed as part of this network. Mass balance measurements provide an indication as to whether the ice caps under investigation are shrinking or growing in any particular year. This work will be performed out of permanent huts that exist on the Meighen and Melville ice caps, and tents on the Agassiz and Devon ice caps.

#### II. Snow sampling for monitoring pollution levels

Snow samples collected from each mass balance monitoring site will be returned to the GSC glaciology laboratory in Ottawa for analysis of the major pollutant ions (eg. Sulphates – acid snow) and pollen. Knowledge of the annual variability of pollen and pollutant concentrations at the monitoring locations improve provide important information towards quantifying current trends in levels of atmospheric pollution, understanding atmospheric circulation patterns, and interpreting long-term pollution trends from ice cores.

#### III. Variability in flow rates of major outlet glaciers on the Devon Ice cap

In-situ global positioning systems (GPS) will be deployed on 3 major outlet glaciers that drain the Devon ice cap. The in-situ GPS will track the glacier's velocity on a daily basis over the course of a 2 year period of time. These data will a) provide ground validation to measurements of glacier velocity fields derived from satellite-based methods and b) quantify seasonal variations in rates of glacier flow. These data are crucial to understanding the effects of climate warming on the dynamics and mass balance of high Arctic ice caps.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Devon Island, Ellesmere

**Number in Party:** 2

### **Ground ice dynamics and influence on vegetation microtopography of a polar desert ecosystem in the Canadian High Arctic**

**License Number:** 02 015 14R-M

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#### **Summary/Objectives**

The goal of fieldwork for 2014 will be to collect the last remaining pieces of field data. This primarily includes the retrieval of temperature data loggers installed last year near Eureka, Ellesmere Island, and collection of meteorological data from a weather station in the area. All remaining equipment from this project will be brought back to Montreal as this should be the final year of data collection. When this field season is completed the final data analysis of the of the project will begin, as well as the writing of publications for scientific literature, public outreach, and a summary for the Nunavut Research Institute.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Axel Heiberg Island, Ellesmere Island

**Number in Party:** 1

### **Hydrological processes and change, Apex River, Iqaluit area**

**License Number:** 01 022 14R-M

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#### **Summary/Objectives**

We plan to develop a long term watershed monitoring program in a river that has important uses for community members and the City of



Iqaluit. This information will help manage the river and inform users of changes that are occurring.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Iqaluit/Apex

**Number in Party:** 3

### **Ice Islands of the Eastern Canadian Arctic**

**License Number:** 02 007 14R-M

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#### **Summary/Objectives**

This research program brings together an international team of researchers to continue previous study on the drift, deterioration and shape of ice islands (large tabular icebergs of Arctic ice shelf or floating glacial tongue origin) in the Eastern Canadian Arctic. Four ice islands were studied in July and October of 2011 and future research will build on this work in 2012 and beyond. Ice islands have extensive dimensions (1 km<sup>2</sup> to 250 km<sup>2</sup>) and are considered ice hazards for shipping and natural resource exploration and development in the Canadian Arctic and Sub-Arctic. The objective of this work is to better understand the drift and deterioration of these ice islands. This will allow for accurate size and location prediction and proper risk assessment and management by stakeholders.

**Year: 2014**

**Region:** North & South Baffin

**Community/Location:** Canadian Arctic Archipelago, Arctic Ocean, Baffin Bay

**Number in Party:** 8

### **Implications of winter ice cover to the ecology of Crazy Lake**

**License Number:** 01 015 14N-A

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#### **Summary/Objectives**

Arctic regions are particularly sensitive to increasing global temperatures. For freshwater habitats, the annual ice cover period controls much of the internal lake function from timing of carbon sources, to the availability of light and oxygen, to when aquatic organisms emerge in the spring. Therefore, both the extent and duration of the ice cover period has direct consequences to ecosystem functioning. The objective of this project is to identify the implications of winter snow and ice cover on the ecology of northern lake ecosystems.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Crazy Lake

**Number in Party:** 15

### **Improved retrievals of snow depth on sea ice for numerical sea ice prediction applications.**

**License Number:** 02 018 14N-A

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#### **Summary/Objectives**

Snow depth over sea ice is a crucial variable that has to be properly initialized in numerical weather prediction (NWP) systems. However, snow depth on sea ice is poorly observed conventionally and has proven very challenging to address with satellite imagery. Recently available measurements from NASA's Operational IceBridge (O.I.B.) can directly estimate snow depth on sea ice at sufficiently high resolution to allow meaningful validation with ground reference measurements. The overarching objective of this purpose is to utilize state of the art remotely sensed measurements to improve Environment Canada's capability to provide

information on snow depth over sea ice for applications related to numerical model based prediction systems such as the Canadian Seasonal to Interannual Prediction System (CanSIPS) and the Regional Ice Prediction System (RIPS). In order to meet these objectives, a new suite of snow on sea ice thickness ground measurements needs to be acquired coincident with OIB flight lines.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Eureka

**Number in Party:** 5

**Industrial Minerals, Limestone (carbonate) resources, Southampton Island.**

**License Number:** 03 010 14R-M

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### **Summary/Objectives**

Southampton Island covers an area of 41,214 km square; more than 2/3 of the island is covered by carbonate rocks, a portion which may be pure limestone and have use as an industrial mineral. Industrial grade limestones have a diversity of uses including acid water treatment around mines, for the manufacture of lime and cement, aggregate (crushed limestone), and rock dust for explosion abatement. With a planned expansion of mining operations in the region, the potential to locally source and manufacture lime products is feasible. Coral Harbour is the only settlement on Southampton Island.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Southampton Island

**Number in Party:** 3

**Investigation of Climate Change Effects on Arctic Lake Sediment Biochemistry**

**License Number:** 02 035 14R-M

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### **Summary/Objectives**

The purpose of this study is to investigate the effects of warming climate on the chemistry and biology of Arctic lakes, focusing on changes in primary producers such as algae, and the effects on mercury cycling and mercury methylation. Methylation is a chemical process that occurs mostly in the lake sediments, but is important because it leads to the accumulation of toxic mercury in arctic char and other aquatic organisms. This study focuses on environmental variables such as water temperature and length of the ice free season (i.e., effects of climate change) that may affect the methylation process.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Cornwallis Island

**Number in Party:** 2

**Land and water research at the Cape Bounty Arctic Watershed Observatory (CBAWO) Melville Island**

**License Number:** 02 032 14R-M

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### **Summary/Objectives**

Our work is intended to determine how climate change affects the land and water quality. Our work involves taking sediment and water samples from the lakes and streams at Cape Bounty. We have chosen these lakes and rivers because the rivers appear to supply an abundant sediment and deep lakes are needed to preserve the sediments for our research. We have been doing this work since 2003 and hope to continue for several more years.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Cape Bounty

**Number in Party:** 19

### **Landscape Hazard Mapping.**

**License Number:** 03 016 14N-M

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### **Summary/Objectives**

The purpose of this project is to create a map that shows where the community lands in Arviat are changing, particularly where those changes may affect how land is being used now or in the future. Many of these changes in the landscape are occurring because of changes in climate. For example, warmer temperatures cause the frozen ground to thaw, making it more challenging to build on. Less sea ice and more wind cause greater wave action and erosion of the community shoreline, potentially impacting buildings and structures along the coast. This map will be useful for the hamlet council, community members and the Government of Nunavut in making decisions about the current and future land use planning.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 3

### **Limnology and Aquatic Ecology of High Arctic Lakes and Ponds on Cornwallis Island and surrounding Islands.**

**License Number:** 02 025 14N-M

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### **Summary/Objectives**

The purpose of this project is to collect and assess water on sediment samples from lakes and ponds on Cornwallis Island and surrounding islands. On Cornwallis Island near Resolute Bay, our research group at Queen's University has been monitoring several freshwater lakes and ponds for the past 30 years, constituting one of the longest and most valuable freshwater monitoring programs in the high Arctic. These data have given us critical insight onto how aquatic systems respond to climate warming and other anthropogenic stressors in the high Arctic. Our goal in the next three years is to continue this monitoring program, as well as collect data from new sites.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Resolute Bay, Prince Leopold Island, Tern Island

**Number in Party:** 4

### **Long-term limnological and paleolimnological monitoring of Nettilling Lake, central Baffin Island, Nunavut, Canada**

**License Number:** 01 017 14N-M

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### **Summary/Objectives**

Lakes and ponds are a major feature of the Arctic landscape, and these contain sediment archives from which biological, physical and chemical proxies can be extracted to reconstruct climate and environmental changes through time. To explore the past and recent natural environmental climate fluctuations of central Baffin Island, we are planning on collecting sediment cores and installing data loggers in Nettilling Lake. The faunal (chironomids) and floral (diatoms) fossil assemblages within each sedimentary sequence will be analysed, along with sedimentological and

geochemical analyses to quantitatively track long-term environmental changes during the last postglacial period, which covers approximately the last 6,000 years.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Nettiing Lake

**Number in Party:** 5

### **Mary River Project**

**License Number:** 02 013 14R-M

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### **Summary/Objectives**

Baffinland and its consultants have carried out environmental baseline studies for a number of years, since about 2005. Baffinland plans to continue some aspects of its baseline studies to establish future monitoring programs that will begin as early as next year during construction. A research licence from the Nunavut Research Institute is being sought for ongoing freshwater and sediment quality work. Separate permits are being sought for archaeology and wildlife from the Government of Nunavut, and a scientific licence will be sought from the Department of Fisheries and Oceans related to fish and fish habitat work.

Standard water and sediment sampling methodologies will be used, consistent with those described in the baseline studies attached to the Final EIS. Sampling locations will be accessed by foot, by truck (along the tote road) or by helicopter, as necessary. The field staff will be located in the existing camp facilities at Mary River and Steensby Port.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Steensby Port, Mary River, Milne Port/Road

**Number in Party:** 5

### **Meta Incognita Peninsula-Resolution Island and Hall Peninsula Geoscience Projects**

**License Number:** 01 024 14N-A

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### **Summary/Objectives**

Recent geological field work conducted during the Hall Peninsula Integrated Geoscience Project has produced a substantial amount of new geologic data and observations which are being used to create modern 1:250,000 scale geological maps, and inform industry, government, and community stakeholders of potential economic resources in this area. Several findings from that project warrant further in depth study and documentation, such as sites with elevated concentrations of nickel, copper, gold, and molybdenum, and rocks with potential rare earth element mineralization. Additionally, carving stone deposit resources on and near Opingivik Island have been identified as excellent quality, but further evaluations are necessary to define the deposit.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Hall Peninsula, Meta Incognita

**Number in Party:** 12

### **Metal Loading and Retention in Arctic Tundra Lakes during Spring Runoff.**

**License Number:** 01 018 14N-M

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### **Summary/Objectives**

Spring snow melt is the most important hydrologic event of the year in Arctic landscapes. During this relatively short period in spring, inputs of water and waterborne contaminants such as mercury (Hg) and other trace metals to surface waters can exceed those occurring during the remainder of the year. Nevertheless, there is little research on the transport of metal to lakes during snow melt periods in Arctic Canada. The main objective of this project will be to quantify, using hydrological and water chemistry measurements, the relative contributions of mercury, and other trace metals in snowmelt runoff to the water column and sediment of lakes in the vicinity of Iqaluit, Nunavut.

**Year: 2014**

**Region:** Qikiqtani

**Community/Location:** Iqaluit

**Number in Party:** 6

#### **Microbial investigations of perennial springs, permafrost and ground ice in the high Arctic**

**License Number:** 02 023 14R-M

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#### **Summary/Objectives**

The microbial biodiversity in unique habitats including cold perennial salt springs and permafrost environments have not been fully explored, and molecular traits that enable microorganisms to survive and thrive in the Canadian High Arctic are unknown. My research program examines microbial biodiversity and ecology in unique polar habitats and aims to expand our knowledge of polar microbial communities.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Axel Heiberg

**Number in Party:** 6

#### **Natural Attenuation as an Oil Spill Response Strategy in the Arctic**

**License Number:** 02 050 14N-A

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#### **Summary/Objectives**

The primary objective of this project is to identify and assess the natural attenuation capacity of the microbial community present in seawater in the Arctic to biodegrade oil, should a spill event occur under Arctic conditions. Surface seawater will be collected from Allen Bay, Nunavut, to assess the microbial and genetic capacity of the natural microbial community to degrade oil under controlled conditions at the Polar Continental Shelf Project facilities in Resolute Bay.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Resolute Bay

**Number in Party:** 3

#### **NEIGE (Northern Ellesmere Island in the Global Environment)**

**License Number:** 02 010 14R-M

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#### **Summary/Objectives**

This is a follow-on of our work in the program NEIGE, to continue monitoring and environmental measurements in Quttinirpaaq National Park's lakes, fiords and vicinity. We will determine the diversity of microbial life in shallow water communities using state of the art molecular techniques, characterize the physical characteristics and processes within northern Ellesmere Island's meromictic lakes, and define

the structure and function of microbial food webs within Lake A, C1, Ward Hunt, Disraeli Fjord and Milne Fjord using HPLC and flow cytometry analyses at Laval University. Our climate stations will continue to provide long-term air and soil monitoring data for this globally important site.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Quttinirpaaq National Park, Resolute Bay Lakes, Markham Ice Shelf

**Number in Party:** 6

### **Northern Boothia Peninsula Aeromagnetic Survey**

**License Number:** 04 006 14R-M

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#### **Summary/Objectives**

The purpose of this airborne survey is to acquire high-resolution aeromagnetic data to provide publically available geoscience information to inform land-use decisions by landowners, governments, and industry. Aeromagnetic surveys measure magnetic properties of bedrock and are one of the tools used in geological mapping. The bedrock may contain mineral deposits, such as gold, copper, lead, zinc, and diamonds. Understanding the geology will help geologists map the area, assist mineral exploration activities, and provide useful information necessary for communities, aboriginal associations, and government to make land use decisions. This survey will be flown to improve our knowledge of the area. It will support potential future ground-based geological mapping and to provide basic information to support mineral exploration.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Boothia Peninsula

**Number in Party:** 2

### **Northern Ellesmere Ice Shelves, Epishelf Lakes and Climate Impacts**

**License Number:** 02 006 14R-M-Amended

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#### **Summary/Objectives**

This research program will continue work on the current characteristics and stability of the northern Ellesmere Island ice shelves and adjacent multiyear landfast sea ice. Fieldwork started at this location in 2008, and will continue for the foreseeable future. Almost all of the ice shelves in this region have experienced dramatic break-ups over the last eight years, so this project aims to improve understanding of the causes of these events and the fate of the remaining ice shelves and related ice features.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Milne & Petermann Ice Shelves, White Glacier

**Number in Party:** 4

### **Peregrine Diamonds Ltd. Chidliak Property 2014 Baseline Environmental Studies**

**License Number:** 01 026 14R-M

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#### **Summary/Objectives**

The Chidliak Project site owned and operated by Peregrine Diamonds Ltd. (Peregrine) is situated in Hall Peninsula, southeast Baffin Island, Nunavut approximately 120 kilometres northeast of Iqaluit. EBA, A Tetra Tech Company (EBA) was retained by Peregrine to conduct the 2013 studies on the project site to gain an understanding of the

Environmental Baseline conditions, which would then function as a key management tool for planning exploration studies at the project site began in 2009 and have continued annually.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Peregrine Diamonds Chidliak Camp, Iqaluit, Pangnirtung

**Number in Party:** 3

**Permafrost Hydrology and Environmental Significance of Perennial Springs in the Expedition Fiord Area, Axel Heiberg Island**

**License Number:** 02 009 14R-M

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**Summary/Objectives**

My research on the cold perennial springs on Axel Heiberg Island in the Canadian high Arctic has led to a better understanding about the unique nature of saline groundwater in permafrost. This is an ongoing study concerned with the technical analysis of several aspects of spring hydrology and geomorphology. The aims of this research are (1) to determine the origin of perennial spring flow, (2) to understand and explain processes related to the interaction between groundwater and permafrost, and (3) to describe the microbial communities associated with springs, lakes and permafrost. These efforts have contributed to a better understanding about the limits of life in cold climates and about unique physical processes that are occurring in the Arctic. This is the only research on cold perennial springs being conducted in the high Arctic. These springs have no commercial value and our research is driven entirely by scientific questions.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Axel Heiberg Island

**Number in Party:** 4

**Provenance of clastic sediments in the Sverdrup Basin, Canadian Arctic Islands**  
**Provenance of clastic sediments in the Sverdrup Basin, Canadian Arctic Islands**

**License Number:** 02 001 14R-M

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**Summary/Objectives**

The 2012 to 2014 field programme aims to build on previous CASP research and existing published information (Geological Survey of Canada and other workers). The main aim of this research is to characterise the nature and origin of sediment within the Sverdrup Basin by targeting several sites over a three year period (2012, 2013 and 2014).

The islands within Nunavut which we would like to visit (Axel Heiberg and Ellesmere islands) are located around the margins of the Sverdrup Basin, where we can study the greatest range of sedimentary rocks.

The aim is to make detailed field observations and measurements, and in addition to undertake sampling for sediment provenance analysis (sandstones), with a complementary palaeontological sampling programme (permit pending) to allow correlation across the basin.

Other objectives are to compare the stratigraphic succession on the northern and southern margins of the Sverdrup Basin, to test existing sequence stratigraphic interpretation and facies models, and to collect a sample set with which to quantify the uplift and burial history of the Mesozoic and Cenozoic successions.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Axel Heiberg Island,

Ellesmere Island  
**Number in Party:** 6

### **Seabed Mapping of Frobisher Bay to Support Infrastructure Development & Natural Hazard Assessment**

**License Number:** 01 032 14N-M

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#### **Summary/Objectives**

Frobisher Bay is becoming a focal point for a range of new infrastructure development options that supports Nunavut's capital city and a natural resource development in the region. This includes a possible deep water port, fishing industry, mine at Chidliak diamond property, fibre optic cable connecting through the Northwest Passage and Hydro Electric dam site in the area. In order to support the evolution of this region, and its safe use by residents, an innovative partnership between the Canada-Nunavut Geoscience Office, Government of Nunavut's Nulijuk research vessel and Natural Resources Canada will produce, the first ever, detailed maps of the seabed of Frobisher Bay

**Year:** 2014

**Region:** South Baffin

**Community/Location:** Frobisher Bay

**Number in Party:** 8

### **Somerset Island Aeromagnetic Survey**

**License Number:** 02 022 14R-M

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#### **Summary/Objectives**

The purpose of this airborne survey is to acquire high-resolution aeromagnetic data to provide publically available geoscience information to inform land-use decisions by landowners, governments, and industry. Aeromagnetic surveys measure magnetic properties of bedrock and are one of the tools used in geological mapping. The bedrock may contain mineral deposits, such as gold, copper, lead, zinc, and diamonds. Understanding the geology will help geologists map the area, assist mineral exploration activities, and provide useful information necessary for communities, aboriginal associations, and government to make land use decisions. This survey will be flown to improve our knowledge of the area. It will support potential future ground-based geological mapping and to provide basic information to support mineral exploration.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Somerset Island

**Number in Party:** 2

### **Tracking Paleoenvironmental Change in the latest Mesoproterozoic (ca. 1.1 billion years old) Bylot Supergroup, Baffin Island.**

**License Number:** 02 040 14N-M

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#### **Summary/Objectives**

This project will entail studying the superbly exposed and well preserved sedimentary rocks of the Borden Basin in Northern Baffin Island. The goal for this year is to establish three camps in different parts of the basin at which we will carry out geological mapping, describe and log the rocks, and to collect hand specimens for geochemical analysis. The purpose of this research is to study changes in the global environment around one billion years ago, when these rocks of the Norden Basin were formed.



**Year: 2014**

**Region:** North Baffin

**Community/Location:** Anmaat Mt, Alpha River, Shale Valley

**Number in Party:** 6

### **Tundra Monitoring in Ukkusiksalik National Park**

**License Number:** 03 013 14N-M

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#### **Summary/Objectives**

To install a long term monitoring station in Ukkusiksalik National Park to monitor changes in the tundra ecosystem that makes up approximately 64% of the park's landscape. Climate change is considered to be a key stressor on ecological integrity and Arctic research to date suggests that the layer of soil above the permafrost that thaws in the growing season (active layer) is being affected. As a result, the monitoring station will focus on measuring changes to the active layer and to the plant community.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Ukkusiksalik National Park

**Number in Party:** 4

### **Upper Air Building Laboratory, Resolute Bay**

**License Number:** 02 004 14R-M

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#### **Summary/Objectives**

The Canadian Aerosol Baseline Measurement (CABM) program under the Climate Chemistry Research Measurement and Air Quality Research

sections are proposing to measure changes in the levels of absorbing (black carbon) and scattering aerosols and gases that may accompany increased ship traffic and increasing mining activities in the Canadian Arctic as well as from an increase in forest fires at more southern latitudes. In particular, black carbon, which is a strong light absorber that is released into the atmosphere from the incomplete combustion of fuels, is recognized as one of the "Short Lived Climate Forcers" that may contribute to more rapid melting of Arctic ice.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Resolute Bay

**Number in Party:** 4

### **Variability and Forcing of Fluxes through Nares Strait & Jones Sound**

**License Number:** 02 028 14R-M

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#### **Summary/Objectives**

Our project was initiated in 2003 and continued through the IPY and beyond. Its purpose is to measure the strength and properties of ocean currents flowing through the Canadian Arctic to Baffin Bay. The amount of fresh water mixed with the seawater is of special interest. The Arctic currents are important sources of nutrients for marine life in Nunavut and important pathways for fresh-water movement in the climate system. About half the outflow from the Arctic Ocean passes through Nunavut. The water that comes south was originally delivered to the Arctic by currents from the Pacific Ocean and by snow, rain and rivers. Our project's short name is CATs, for Canadian Arctic Through-flow study.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Nares Strait, Jones Sound  
**Number in Party:** 13

**Winter to Summer Transitions in the Arctic-Ice Covered Ecosystem (Arctic-ICE) - Multiyear Project**

**License Number:** 04 005 14R-M

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**Summary/Objectives**

Climate warming has induced rapid change in the ice-covered marine ecosystem of the high Arctic. In this project we will investigate: (1) physical and

biological processes controlling the timing of marine primary production, which has been hypothesized as an indicator of potential change in the ecosystem, (2) the influence of rivers and sea ice melt on the freshwater budget and organic carbon cycle in coastal bays near Cambridge Bay, and (3) microbial diversity in sea ice, seawater and marine sediments as it relates to in situ biogeochemical cycling and the potential microbial response to increased industrial activity, e.g., oil spills.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Dease Strait, Wellington Bay, Queen Maud Gulf

**Number in Party:** 4

## 2014 Licensed Social Sciences Research in Nunavut

### **A Case Study Analysis of Inuit Youth Responses to the Mary River Mine in Pond Inlet.**

**License Number:** 02 041 14N-M

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#### **Summary/Objectives**

The purpose of this research is to speak to Inuit youth (16-29) about the Baffinland Mine. We are interested in knowing more about what young Inuit believe will be the benefits and the challenges. Our goal is to learn more about the concerns, positive and negative, that young Inuit would like to discuss. We are going to use a focus group method so that small groups from the community can talk with us together. We will protect the confidentiality and anonymity of the participants and share the results in academic journals and prepare a report to post on Isuma TV for the community to read.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Pond Inlet

**Number in Party:** 2

### **A study of the contemporary music scene in Arviat, Nunavut**

**License Number:** 03 001 14R-M

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#### **Summary/Objectives**

While Nunavut, and Arviat in particular, have been the location of several studies surrounding traditional music, I am particularly interested in the

North-South relationship of musical activities. My principal interest lies in two areas. First, what does the contemporary music scene look like in Arviat, including both traditional and popular musics? Second, does the increased visibility of Inuit music in the South (ie. use by classical ensembles and popular musicians) have any influence on musical practice in Arviat? Several Arviat musicians now travel regularly to perform traditional music in Southern settings, some under the direction of a professional agent. Do these musicians gain legitimacy at home through these activities?

**Year:** 2014

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 2

#### **Adaptation, Industrial Development and Arctic Communities**

**License Number:** 05 009 14R-M

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#### **Summary/Objectives**

The key objective of this project is to engage in community-based, historical and comparative research into Arctic industrial development. By undertaking fieldwork in mining-affected communities and archival research into the legal and policy frameworks surrounding mineral development, our research team aims to inform debates and policy-making efforts surrounding the rapid industrialization of Arctic regions. The focus of this work is on three Nunavut communities currently encountering mineral exploration and development activity in their vicinities, and/or with a history of mining in the area: Kugluktuk (Coppermine) in the Kitikmeot region, Qamani' tuaq

(Baker Lake) and Kangiqiniq (Rankin Inlet) in the Kivalliq region. In addition, we have extended our research to a fourth community, Arctic Bay (Ikpiarjuk Tununirusiq), where we will examine the legacies of the former Strathcona Sound (Nanisivik) lead-zinc mine.

**Year: 2014**

**Region:** Kitikmeot, Kivalliq, North Baffin

**Community/Location:** Baker Lake, Arviat, Rankin Inlet, Kugluktuk, Arctic Bay, Resolute Bay

**Number in Party:** 8

**An Ethnological Study of the socio-political and economic function of IQ (Inuit Qaujimagatuqangit) in the Contemporary Inuit Community.**

**License Number:** 04 011 14R-M

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#### **Summary/Objectives**

Since the establishment of Nunavut, IQ (Inuit Qaujimagatuqangit: Inuit Knowledge or Inuit ways of doing things) has attracted worldwide public and academic attention. How should IQ be applied to the management of Nunavut government to establish the governance system compatible with the Inuit societal values? How should the governance system of Nunavut, still based on the modern Qablunaat (Euro-Canadian) way of governance, be modified according to the IQ principles? These issues are important to the contemporary people of the world as well as Nunavut Territory and Canada, because their challenge to modify the Qablunaat way of governance according to the IQ principles should contribute to the establishment of an alternative governance system more sensitive to and empowering the indigenous peoples.

The purpose of this research project is to investigate how IQ functions in contemporary Inuit communities to modify and adapt the governance system of Nunavut to the Inuit way of life. Based

on this investigation, we consider the role of IQ in maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

We will carry out the research in Kugaaruk where we have conducted ethnological research since 1988. Our research is composed of the following 4 parts.

Research on language (Inuktitut) and traditional knowledge: Omura will continue study on Inuktitut and traditional ecological knowledge of animal, plant, geographical features, climate etc. by formal interviews.

Research on story telling: Omura will collect life history, legend and myth by formal interviews to consider the role of story telling in transmission of IQ.

Research on subsistence activities: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on subsistence activities and food sharing practices to understand how IQ functions as a bridge of traditional way and modern mechanized way of subsistence.

Research on societal values: Stewart, Omura, Kishigami, Kuzuno and Kubota will make a series of participant observation and interviews on social relations to understand how IQ functions as an integral part of maintenance and reinforcement of family and community ties, problem solving and integration of modernity with traditional way of life.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Kugaaruk

**Number in Party:** 5

**Arctic Fishery Project: A Community-Based Strategy towards a Sustainable Fishery at Gjoa Haven.**

**License Number:** 04 021 14N-M

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### **Summary/Objectives**

The ERM Foundation would like to support the development of the Gjoa Haven HTO's strategy for a sustainable Fishery for subsistence and potentially commercial purposes. The objective of this work is to better understand community perspectives to inform the Sustainable Fishery Strategy.

**Year: 2014**

**Region:** Ktikmeot

**Community/Location:** Gjoa Haven

**Number in Party:** 2

### **Arctic Inspiration Prize-Inuit Qaujimajatuqangit Project**

**License Number:** 03 014 14Registry

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### **Summary/Objectives**

In December 2013, the Inuit Qaujimajatuqangit team was awarded a \$240,000 Arctic Inspiration Prize to be used for a book project aimed at documenting Inuit Elders' understandings of Inuit world views. The book will serve as a resource for academics, researchers, educators and the next generation of Inuit. The Elders believe that the creation of such a book will be of benefit to researchers in all fields and disciplines, but, most importantly, to Inuit themselves as they move forward in a rapidly changing and challenging world.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 8

### **Back River Project: Socio-Economic and Land Use Studies**

**License Number:** 04 010 14R-M

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### **Summary/Objectives**

Sabina Gold & Silver Corp. is exploring significant gold deposits near Back River, Nunavut. The area holds a number of potential ore deposits that are being investigated. The baseline studies could form the basis of Socio-Economic Impact Assessment and Analysis per Part 5 of Article 12 of the NLCA. The Socio-Economic study will focus on the communities of the Kitikmeot Region, including social, economic, education, cultural, and governance characteristics. The Land and Resource Use study is more site-specific, and will investigate land (and water) uses in the areas surrounding the Back River deposits.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaruuk

**Number in Party:** 5

### **Broadband Internet in Nunavut: Policy, Access, Usage**

**License Number:** 01 029 14N-A

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### **Summary/Objectives**

My work aims to examine the differing solutions for improving access and availability to broadband articulated by government players, private companies and advocacy groups. I am also studying, to a lesser extent, Internet usage in the territory, and experiences of that usage, looking at how broadband has impacted business and communication, and the benefits and possible

frustrations experienced in using the internet in Nunavut.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Iqaluit

**Number in Party:** 2

**Certified Trade with Indigenous Peoples: A Cooperation Project between Research and Practice**

**License Number:** 01 027 14N-M

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**Summary/Objectives**

The goal of the project is to establish a certification system and label for Inuit seal fur under which a small and direct trade with seal skins and potentially seal products between Inuit from Nunavut and producers / retailers in Switzerland can take place. Switzerland does not have import barriers for seal products. However, the project will require extensive information of consumers in Switzerland about the Inuit culture and seal hunt in order to overcome the existing animal welfare concerns against seal hunting.

**Year: 2014**

**Region:** Baffin

**Community/Location:** Iqaluit, Pangnirtung

**Number in Party:** 1

**Climate Change & Health Adaptation Youth Photovoice Project.**

**License Number:** 02 052 14Registry

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**Summary/Objectives**

The Climate Change and Health Adaptation Youth Photovoice is a youth engagement project, with an aim to train 6 youth from the Baffin Region in research methods, and to support the development and implementation of 6 individual photovoice projects that explore the following overarching research questions. What do Nunavut youth perceive to be the most pressing health and wellness issues related to climate change? What do youth perceive to be the role of language, knowledge transfer, and Inuit culture in adaptations to climate change?

**Year: 2014**

**Region:** Qikiqtani

**Community/Location:** Hall Beach, Igloolik, Pond Inlet

**Number in Party:** 3

**Community Experiences of Arctic Natural Resource Management – a Comparative Study.**

**License Number:** 02 047 14N-A

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**Summary/Objectives**

The purpose of my research is to study, through approximately 5-10 interviews, the relationship between Arctic communities and the corporations and governments that extract natural resources in their region. Specifically, I seek to determine whether communities have been successful in gaining some control of local resource management, or in benefitting from local resource development.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Pond Inlet

**Number in Party:** 2

## **Community Workshop on Ringed Seals Research in Nunavut**

**License Number:** 01 013 14N-A

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### **Summary/Objectives**

The purpose of this workshop is to create a space for knowledge exchange related to ringed seal research in Nunavut, involving researchers, hunters involved in ringed seal research programs; representatives from regional, territorial and the federal governments; wildlife management organizations; and community organizations. The objectives are to identify questions, strengths, and concerns about current programs and, determine mutual information needs and ringed seal knowledge priorities among researchers and communities. The long term goals are to identify opportunities and needs for further research, and begin to identify ways to strengthen relationships between researchers and community members, to ensure future research is responsive to the needs to communities in Nunavut and current environmental issues.

**Year:** 2014

**Region:** Qikiqtani

**Community/Location:** Iqaluit

**Number in Party:** 2

## **Comparisons of Inuit tracking techniques and estimates of polar bear characteristics from tracks.**

**License Number:** 02 020 14N-M

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### **Summary/Objectives**

The project contributes to a developing non invasive polar bear survey by integrating genetic analyses of polar bear tissue (collected through collaborations with the Government of Nunavut) and Inuit traditional knowledge to develop new techniques of identifying polar bear age. The work builds on previous reliability assessments of Inuit estimating polar bear characteristics from tracks, revealing high agreement, potential accuracy, and shared techniques in their diagnoses.

**Year:** 2014

**Region:** North & South Baffin, Kivalliq

**Community/Location:** Arctic Bay, Arviat, Kimmirut

**Number in Party:** 3

## **Creating Citizens, Building**

**Societies: Education, Citizenship and Change in the Eastern Arctic.**

**License Number:** 01 007 14N-A

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### **Summary/Objectives**

The rapid introduction of formal education to the eastern Arctic in the 1960s brought massive changes to Inuit family relations and society. This research will document and analyze these changes between 1960, when the federal day school was established in Igloodik, and 1999, when Nunavut was founded, aiming to make Inuit perspectives more visible.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Igloodik

**Number in Party:** 2

**Cultivating the Arctic's Most Valuable Resource: An Analysis of the Barriers to High School Completion Among Aboriginal Youth in Northern Communities**

**License Number:** 01 016 14R-M

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### **Summary/Objectives**

The objective of this project is to uncover the key determinants of high dropout rates from high school among Aboriginal youth in Northern communities. Nunavut had the highest average dropout rate of all Canadian provinces and territories, at 50.0% of the population aged 20-24 between 2007 and 2010. By gathering information from focus groups and a survey of high school-aged youth in Iqaluit, our project will be able to answer a crucial question concerning Iqaluit's education system: what initiatives and resources are needed to ensure a higher rate of high school completion among youth?

We anticipate that the results of our study will provide insight into effective policies for reducing early exits from high school. Increased educational attainment should foster social and economic prosperity as additional schooling at the high school level has been shown to bring about increases in earnings, improvements in health status, job stability as well as other important societal benefits such as reduced crime and cultural revitalization.

**Year: 2014**

**Region:** Baffin, Kivalliq, Kitikmeot

**Community/Location:** Hall Beach, Igloolik, Iqaluit, Kugluktuk, Rankin Inlet

**Number in Party:** 2

### **Educational Change in Nunavut: Looking for the Past in Decolonizing Policy, Programs and Pedagogies**

**License Number:** 01 008 14R-M

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### **Summary/Objectives**

This dissertation research examines some of the processes and goals of educational change underway in Nunavut since the creation of the territory in 1999, with a particular emphasis on how and why knowledge from and about the past (such as histories, memories, Elder knowledge) figures in policy, leadership, and curriculum development. This research places decolonizing purposes at the forefront of studying teaching and learning in a cross cultural, Indigenous and Arctic educational context.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Iqaluit

**Number in Party:** 2

### **Exploring the Leadership Practices of Principals Who Promote the Educational Success of First Nations, Metis, and Inuit Students.**

**License Number:** 01 020 14N-M

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### **Summary/Objectives**

The overall purpose of the larger study is to compare and contrast the perceptions and practices of Prince Edward Island, Nunavut, and Saskatchewan principals/educational leaders (e.g., Elders) who foster educational achievement for First Nations, Metis, and/or Inuit students. However, through this proposal, I only ask for permission to interview principals/educational leaders in Nunavut.

**Year: 2014**

**Region:** Qikiqtani, Kivalliq

**Community/Location:** Iqaluit, Rankin Inlet

**Number in Party:** 0



**Food Security in a Changing Socio-Economic Environment, Clyde River, Nunavut**

**License Number:** 02 030 14N-A

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**Summary/Objectives**

The food security (or, increasingly, the food insecurity) of Aboriginal communities across the Canadian North, but especially of Inuit living in Nunavut, has taken on an increasing urgency in light of anticipated negative environmental and associated socioeconomic consequences due to climate change. To date, however, the preponderance of research on this subject in relation to Inuit has been approached either from a vulnerability to climate change focus or from a market cost-nutritional health one. In reality, neither approach has paid serious importance to the traditional resources as a material and cultural important component of food security for Nunavummiut (here, Inuit citizens of Nunavut). The research being proposed is intended as a step to redress this knowledge gap.

**Year:** 2014

**Region:** North & South Baffin

**Community/Location:** Clyde River, Iqaluit

**Number in Party:** 2

**Feeding our Families in Kugluktuk: How are residents successful? How could things be improved?**

**License Number:** 04 003 14N-M

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**Summary/Objectives**

Despite extremely high financial costs of living, many people in small, remote communities in the Canadian Arctic successfully feed their families. Different things make this possible, such as Government programs, policies, social networks or food sharing relationships. But for whom they work and how? Do some aspects of these actually prevent people from feeding their families?

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Kugluktuk

**Number in Party:** 3

**Hackett River Project: Socio-Economic and Land Use Baseline Studies**

**License Number:** 04 009 14R-M

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**Summary/Objectives**

The primary goal of the research is to gather and update data on the socio-economic, cultural, education, governance and land use characteristics at community, regional and territorial levels. This will include current socio-economic profiles and characteristics of the study communities, and the identification and description of land uses/users.

Research methods include a desk-based review of existing literature and statistics including quantitative and qualitative information. Issues scoping will draw from this initial research, as well as the findings and outcomes of past and ongoing developments in the area. The field study program will build upon this research through meetings, interviews, focus groups and workshops in the communities.

**Year:** 2014

**Region:** Kitikmeot

**Community/Location:** Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk

**Number in Party:** 6

**Health Systems Performance in Circumpolar Regions: Can regional comparisons support policy and stimulate improvement?**

**License Number:** 01 010 14R-M

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**Summary/Objectives**

This study will evaluate how health systems stewardship (governance) in circumpolar countries and their northern regions works. We will learn about the countries values for health, and the functions they have that enable them to deliver health services to northern residents. We will aim to learn about how the current health system works and how we can make it better and improve health for northern residents.

**Year:** 2014

**Region:** South Baffin

**Community/Location:** Iqaluit

**Number in Party:** 2

**Identifying Waste Facts in Iqaluit,Canada.**

**License Number:** 01 021 14N-M

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**Summary/Objectives**

The study will rely heavily on archival research,including previous research studies (such as the Sustainable Iqaluit documents and academic research),waste management plans,newspaper reports and publicly available govcerment documents.The proposed study will develop a history of waste in Iqaluit using a variety of media,government and industry publications.

**Year:** 2014

**Region:** South Baffin

**Community/Location:** Iqaluit

**Number in Party:** 4

**Impacts of Climate Change on Berry Productivity:Integrating Traditional Knowledge and Community Participation with Science.**

**License Number:** 04 018 14N-A

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**Summary/Objectives**

This project is part of ArcticNet initiative IMPACTS OF VEGETATION CHANGE IN THE CANADIAN ARCTIC:LOCAL AND REGIONAL ASSESSMENTS. The goals are to improve knowledge of the ecology of berry producing species through the establishment of a long term community based monitoring program using berry species and shrub growth as indicators of climate change. We are interested in integrating local and traditional ecological knowledge with scientific data to understand variations in annual productivity of commonly used berries.

**Year:** 2014

**Region:** Kivalliq

**Community/Location:** Arviat, Rankin Inlet, Kugluktuk

**Number in Party:** 2

**Improved understanding of the Inuit Qaujimaqatuqangit knowledge system.**

**License Number:** 02 042 14N-M

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**Summary/Objectives**

This study is intended to provide a report that community representatives can use to inform proponents of development projects (such as government, researchers, industry, academic and non-governmental organizations) about the governance and decision-making structures within their community thus bridging the information gap between communities and proponents. This report can facilitate the design and implementation of projects and developments in Nunavut in accordance with the principles promoted in the United Nations Declaration on the Rights of Indigenous Peoples.

**Year: 2014**

**Region:** Qikiqtani

**Community/Location:** Pond Inlet, Qikiqtarjuaq`

**Number in Party:** 5

### **Improving Criminal Justice for People with Mental Illness in Remote Arctic Communities**

**License Number:** 01 006 14R-M

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#### **Summary/Objectives**

The purpose of this research is to explore the feasibility of creating specialized mental health criminal court programs that divert offenders with mental illness from the justice system to community treatment in remote Arctic communities affected by scarce resources, geographic isolation, and Inuit cultural considerations. The study's goal is to identify the principles that guide the specialty "problem-solving" courts that focus on the underlying individual and social causes of crime in many Canadian cities and elsewhere and to determine whether these principles can be used in the absence of the resources usually associated with these courts to deliver "therapeutic jurisprudence" in remote communities in Nunavut.

**Year: 2014**

**Region:** Qikiqtani, Kivalliq

**Community/Location:** Arviat, Iqaluit, Qikiqtarjuaq

**Number in Party:** 2

### **Introducing the Emotional and Effective Geographies of Law: Strengthening Community through the practise and Feeling(s) of Inuit Law.**

**License Number:** 04 016 14N-M

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#### **Summary/Objectives**

To better understand Inuit and legal social norms related to subsistence activities and other areas of hamlet life. The Advisory Committee chose sealing and fishing. In resonance of Inuit way of knowing that go beyond rational thinking, the project also seeks to learn more about the role of the body, emotions and "the feeling" in certain areas related to the enactment of norms. The topic includes norms pertaining to the management of resources, the settling of disputes, interactions with non Inuit normative orders (e.g. Canadian Law), etc.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Kugaaruk

**Number in Party:** 2

### **Inuit Life and Death in Contemporary and Historical Contexts.**

**License Number:** 02 049 14N-M

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#### **Summary/Objectives**

The objective of this part of the research is to investigate the way the Canadian government dealt with the tuberculosis epidemic in the Canadian Arctic during the 1950s and 60s and to document the Inuit experience of being sent to southern sanatorium.

As a result of archival research in the Hamilton Sanatorium in Ontario I have hundreds un-identified photographs of Inuit who spent time in the Sanatorium. I will hold community meetings to display these photographs and attempt to collect names and dates for the photographs.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Arctic Bay

**Number in Party:** 2

**Inuit Qaujimajatuqangit about wolverine, wolf and grizzly bear, and how they cope with environmental changes.**

**License Number:** 03 006 14R-M

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#### **Summary/Objectives**

We aim at collecting Inuit Qaujimajatuqangit to document wolverine, wolf and grizzly bear distribution and abundance changes, ecology (food, reproduction, behaviour) and how they adapt to changes in the environment. IQ should especially provide a longer temporal perspective than scientific knowledge and should then greatly help to assess trends in population abundances (past and current) and distribution and to detect environment changes.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Baker Lake, Arviat

**Number in Party:** 4

#### **Inuit Qaujimajatuqangit and Harvest Studies Supporting the Mary River Project**

**License Number:** 02 014 14R-M

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#### **Summary/Objectives**

Baffinland Iron Mines Corporation (Baffinland) is looking to build a mine at Nuluujaak (Mary River). Inuit Qaujimajatuqangit (IQ) studies were initiated in 2006 to document the existing condition of the land and wildlife in the region and obtain feedback on the potential effects of mine development. The studies proposed here include supplementing the IQ studies already initiated, as well as collection of current wildlife harvest information from local hunters. The IQ studies will help Baffinland plan a project that considers and respects local knowledge, including how the people use the land and which areas are most important. The information will be very important to support an environmental assessment, including identifying potential negative and positive impacts of the project on the communities and wildlife, and identifying mitigation opportunities.

These studies will be conducted and coordinated by Baffinland, with the assistance of Knight Piesold Ltd., with the participation of local researchers and Hunter and Trapper Organizations.

**Year: 2014**

**Region:** North & South Baffin

**Community/Location:** Arctic Bay, Cape Dorset, Clyde River, Hall Beach, Igloodik, Pond Inlet

**Number in Party:** 6

**Inuit leadership and Governance in Nunavut and Nunavik: Life Stories, Analytical Perspectives and Training**

**License Number:** 01 002 14R-M

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### **Summary/Objectives**

The CURA Inuit Leadership and Governance in Nunavik : Lifes Stories, Analytical Perspectives and Training is under the responsibility of Frédéric Laugrand, professor at the department of anthropology in Laval University. The research will be conducted in Nunavut and Nunavik from April 30, 2010 until January 31, 2015. The general objective of this research is to analyze Inuit leadership and governance in those regions.

Three main objectives can be identified:

- to gather new knowledge on Inuit leadership and governance from original methods, while simultaneously meeting the needs of communities. Since no substantial research has yet been conducted in this field, it is necessary to collect empirical data in a multidisciplinary perspective;
- to contribute to the training of a young generation of Inuit leaders who wish to link tradition and modernity; also to consider how local, acquired knowledge is applied to address contemporary issues in Northern communities. This objective is essential, as Nunavut and Nunavik are in dire need of a qualified workforce to run the new institutions according to a governance mode adapted to local and regional needs;
- to nurture an analytical, critical and comparative reflection on Inuit leadership, springing from improved interconnection between the expertise of leaders and young Inuit, and those of academics who have conducted research on these questions for many years.

**Year: 2014**

**Region: South Baffin**

**Community/Location: Iqaluit**

**Number in Party: 10**

### **Inuit women and environmental change: examining experiences and adaptation in Iqaluit, Nunavut**

**License Number: 01 023 14N-M**

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### **Summary/Objectives**

As our climate changes, adaptation will be required of communities worldwide. Without an adequate baseline understanding of how individuals experience climate change, both local and global policy will remain ineffective in responding to these changes. Likewise, the adaptation experiences of marginalized sub groups such as women, children and the elderly are lacking representation in climate change literature at a global scale. Within the context of Canada's north this lack of representation holds true. While a great deal of literature has focused on climate change on traditionally male dominated traditional activities, only two academic articles detail how Inuit women are experiencing climate change in Canada's north.

**Year: 2014**

**Region: South Baffin**

**Community/Location: Iqaluit**

**Number in Party: 2**

### **Kugluktukmiut and Inuvialuit Willow Project: Inuit Qaujimajatuqangit of Catkin-bearing shrubs and climate change.**

**License Number: 04 020 14N-M**

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### **Summary/Objectives**

Students and knowledge holders from Kugluktuk and Inuvik will learn Inuit Qaujimajatuqangit of willow from elders. While harvesting willows,

students will learn about edible willow buds and how to make willow mats, tent frames and fishtraps. They will test willow buds for vitamin C and will look at ecological benefits of harvesting willow, as a way to counteract the significant increase in the Arctic shrub over the past few decades, a concern since shrub dominated areas often reduce productivity of edible berries and the lichen eaten by caribou.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Kugluktuk

**Number in Party:** 3

### **Living Inuktitut: Using Social Space in the Eastern Arctic**

**License Number:** 02 029 14N-M

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### **Summary/Objectives**

This research will build on the works of numerous scholars and organizations concerned about the well being of contemporary Inuit. Since the Second World War, the government encouraged Inuit to settle in structured villages to access essential services. The government provided subsidized rental houses arranged along linear roads; however, Inuit were never consulted with regard to design, size or location.

Existing Inuit self-built structures are constructed with sophisticated design principles, accommodating cultural patterns and different ways of grouping according to seasons or occasions. Designing for the local climate and environment is also thoughtfully considered such as uses of form and materials, carefully set openings, massive walls, and shallow pitched or curved roofs to retain the snow as an insulator.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Clyde River

**Number in Party:** 4

### **Making Housing Home: Stabilization Everyday Routines and Linking Home and Housing in Vancouver & Arviat, Nunavut.**

**License Number:** 03 011 14N-M

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### **Summary/Objectives**

We are attempting to answer the following research questions: How do patterns of activity in everyday life get turned to routines? What role do routines have in making people feel at home? How much is the maintenance of routines dependant upon the stability and related characteristics of peoples housing situations? How does the maintenance of routines relate to fully participating in work and school?

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 6

### **Musk Ox Health & Resilience: Musk Ox Surveillance on Victoria Island to Support Food Security, Food Safety, Public Health & Musk Ox Health**

**License Number:** 04 017 14N-M

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### **Summary/Objectives**

The proposed aims to develop a community based musk ox health surveillance system in the community of Cambridge Bay in order to monitor musk ox health over time and be able to detect

disease emergence. This surveillance system will be built through community involvement and will incorporate traditional and local knowledge about musk ox health and diseases.

**Year: 2014**

**Region:** Kitikmeot

**Community/Location:** Cambridge Bay

**Number in Party:** 4

### **Near the Floe Edge: Inuit Women's Roles in the Mixed Economy**

**License Number:** 02 033 14R-M

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### **Summary/Objectives**

Recent academic research in Nunavut has focused on the potential impacts of climate change on the physical and biological subsystems of the northern ecosystem. A corollary to this research has been social scientific investigation of the vulnerability of Inuit and other Arctic Indigenous peoples to disruptions in their traditional activities and, ultimately, the security of local food systems. Yet academics and communities alike have focused interests in subsistence adaptability and food security on hunting practice, which is an activity dominated by men. Meanwhile, little to no attention has been paid to the role of women in subsistence activities, one that I argue is fundamental not only to local food security, but to Nunavummiut cultural resilience as well.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Clyde River

**Number in Party:** 3

### **Northern Men's Research Project**

**License Number:** 05 004 14R-M

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### **Summary/Objectives**

This research is being conducted by Inuit community-based researchers with support from a university-based academic advisor. The process builds the capacity of the Nunavut Literacy Council to carry out high quality, community-based research. It increases the number of Inuit trained in qualitative research techniques. The community-based, participatory approach creates space for men to reflect on their own experiences in post-secondary education and work, and for their voices to be heard by a broader audience. The understandings of men's experiences gained through the project will be used to support and inform the work of Ilitaqsiniq - the Nunavut Literacy Council - a non profit, Nunavut-based, territorial organization.

**Year: 2014**

**Region:** Kivalliq, Kitikmeot, Qikiqtani

**Community/Location:** Cambridge Bay, Arviat, Cape Dorset, Rankin Inlet

**Number in Party:** 8

### **Oral Histories of Auyuittuq National Park.**

**License Number:** 02 054 14N-M

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### **Summary/Objectives**

Parks Canada is collecting oral histories about the area that is now Auyuittuq National Park. These stories will mainly be used to help Parks Canada staff, resident of Pangnirtung and Qikiqtarjuaq, and visitors understand the history of Auyuittuq National Park.

**Year: 2014**

**Region:** Qikiqtani

**Community/Location:** Pangnritung, Qikiqtarjuaq  
**Number in Party:** 4

**Piusituqavut:How Inuit Traditions are Experienced in a Modern,Artistic Space**

**License Number:** 02 036 14N-M

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**Summary/Objectives**

The objective of the research is to explore the role of artistic programs for Inuit youth in their experience of well-being and traditions. My research project stems from a broad interest for Inuit Qaujimatuaqangit in Nunavut and the importance of keeping Inuit traditions alive for healing. However,I would like to understand how, within the context of the social and cultural changes that Inuit society is undergoing, Inuit knowledge and traditions are expressed and used in a modern artistic setting. It thus appears essential to explore what Inuit traditions mean to people participating in such activities.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Igloodik

**Number in Party:** 3

**Positive Impacts of Climate Change that Support Community Food Production in Arviat.**

**License Number:** 03 008 14N-Mregistry

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**Summary/Objectives**

Arviat has completed research in the area of food security over the past three years. Much of this

work is informing Arviat's response and participation in the poverty reduction strategy: The Makimaniq Plan. Additionally, funded through the PHAC Innovation Strategy, Arviat developed nutrition profiles for our children aged 6-12 years as part of our Inusiysiarniq project. The research indicates serious concerns regarding low protein and nutrient intake levels in this young population. Both these areas of research have pointed us in the direction of exploring the potential for local food production beyond the harvesting of country food.

**Year:** 2014

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 8

**Safe and sound: Exploring Inuit mothers' experiences of child welfare in relation to Inuit Qaujimatuaqangit (IQ) in Arviat, Nunavut.**

**License Number:** 03 012 14N-M

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**Summary/Objectives**

This research project responds to concerns expressed by Inuit about the child welfare system (social services). Inuit have stated that Qallunaat (non-Inuit) ways of doing things do not work in their communities – child welfare is no exception. Mining is seen as the economic future of Nunavut yet it can also hold implications for child wellbeing. An increasing number of families are finding employment in the mining industry. Research concerning the social impact of mining has noted some of the problems that can result from this form of employment on families.

**Year:** 2014

**Region:** Kivalliq

**Community/Location:** Arviat

**Number in Party:** 2



**Stories of Schooling:Hearing and Learning from Inuit Experiences of Qallunaat Schools**

**License Number:** 02 051 14N-A

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**Summary/Objectives**

For decades, many Inuit have expressed the need for schooling to reflect Inuit culture yet the imposed school system, often referred to as Qallunaat schools is structures on and retains many qualities of Southern Canada schools. My goals is to understand Inuit experiences of schooling.I am interested in the stories and thoughts of Inuit students who are currently attending, or have attended a Qallunaat School in the last 15 years.I plan on to conduct interviews with about 40 Inuit community members who have been educated in the local day school.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Arctic Bay

**Number in Party:** 2

**Sustainable Futures North: Water,Energy and Food Security in the North:Building Community Capacity for Sustainable Futures**

**License Number:** 02 017 14N-M

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**Summary/Objectives**

The Sustainable Futures North project combines regional assessments of water, food and energy systems with an education and outreach program designed to build capacity through developing post secondary curricula and courses in environmental management, sustainability and engineering.

**Year:** 2014

**Region:** Baffin

**Community/Location:** Clyde River, Iqaluit

**Number in Party:** 2

**TUKTU 2:Mining Impacts and Sustainability in Qamanit'uaq,Nunavut.Developing Strategies and Models for an Equitable Partnership.A Comparative Study with Kangiqsujuaq,Nunavik.**

**License Number:** 03 007 14N-M

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**Summary/Objectives**

The TUKTU 2 Project is based on the findings of TUKTU 1 and is developed at the request of the Baker Lake Inuit workshop participants. We will study the culmulative impacts of the two mines (gold and uranium), develop future scenarios, indicators of sustainability, strategies that preserve caribou livelihood while improving local population well being.

**Year:** 2014

**Region:** Kivalliq

**Community/Location:** Baker Lake

**Number in Party:** 3

**TUKTU: Impact of mining on ecosystems, caribou herds and Inuit life styles in Baker Lake, Nunavut. Triangular research collaborations for alternative scenarios of change**

**License Number:** 03 005 14R-M

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**Summary/Objectives**

This research project aims to understand how mining exploration and development are affecting Arctic communities at the social, environmental and economic level using Baker Lake as a case example and pilot project for Nunavut. We will study with the community the existing mining impacts and factors of change on caribou herds and community development.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Qamani'tuaq

**Number in Party:** 3

### **The Ethnoarchaeology of Inuit Sea-Mammal Hunting, NW Foxe Basin, NU.**

**License Number:** 02 044014N-M

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#### **Summary/Objectives**

The economic and ideological importance of sea mammal hunting by Inuit has been largely neglected by both archaeologists and anthropologists. My research seeks to address how dramatically the sea mammal hunting economy has changed on the arctic since AD 1200. Recent archaeological surveys of ancestral Inuit sites around Igloodik and Hall Beach, Nunavut, have proven the existence of a widespread and long lasting walrus hunting tradition. In mid July I hope to travel to Igloodik, where I will use archaeological data collected in the region and oral histories of Igloodik elders, to build a dialogue with local elders and hunters on the regional change over time of seal and walrus hunting practices and beliefs.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Igloodik

**Number in Party:** 2

### **The Potential Impact of High Speed Internet on Inuit Culture, Education and Well Being.**

**License Number:** 01 036 14N-M

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#### **Summary/Objectives**

Internet capability was introduced to Nunavut Territory as early as 1995. Since then a series of initiatives to establish high speed connectivity in the arctic has been undertaken by government agencies, grass roots organizations and private corporations. My project will first focus on a historical analysis of communication technology in Nunavut with an emphasis on traditional use of information and communication technology (ICT). Moving forward from this analysis, I will investigate how modern ICT is currently being utilized in communities, especially by younger people.

**Year: 2014**

**Region:** North & South Baffin, Kivalliq

**Community/Location:** Arviat, Baker Lake, Cape Dorset, Pangnirtung, Pond Inlet

**Number in Party:** 2

### **The Qikiqtani Truth Commission: Reinventing the Truth Commission Model for Inuit Social Justice and Self-Determination**

**License Number:** 01 030 14N-M

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#### **Summary/Objectives**

This project considers the QTC as an important case study of how Indigenous peoples are reinventing the truth commission model in ways that uphold Indigenous cultural practices and ways of knowing while furthering the goals of social

justice and self-determination. As an Inuit-sponsored and Inuit-led truth commission, the QTC is a groundbreaking commission in this and many other respects. The goal of this project is to interview key staff members of the Qikiqtani Inuit Association and Qikiqtani Truth Commission to learn more about the creation of the commission, its guiding principles and practices, and its ongoing community, national, and international impacts.

**Year: 2014**

**Region:** South Baffin

**Community/Location:** Iqaluit

**Number in Party:** 2

### **The Study of the Inuktitut Dialect Spoken in Resolute Bay.**

**License Number:** 02 045 14N-A

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### **Summary/Objectives**

The project aims to describe the Inuktitut dialect spoken in Resolute Bay, Nunavut. Subsequently, the properties of this dialect will be compared to those of the Inuktitut dialect spoken in Inukjuak, Nunavik, in order to reveal any difference that could have emerged since the relocation in the 1950s of inhabitants of Inukjuak to Resolute Bay and Grise Fiord.

**Year: 2014**

**Region:** North Baffin

**Community/Location:** Resolute Bay

**Number in Party:** 2

### **Traditional Knowledge Studies Regarding Agnico Eagle Mines' Amaruq Project and Proposed Access Road.**

**License Number:** 03 019 14N-M

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### **Summary/Objectives**

The purpose of this study is to document traditional knowledge in the area of the Amaruq advanced exploration site, 50 km northwest of the Meadowbank Mine, and a proposed all-weather access road connecting this site with the Meadowbank Mine. The information will be used in the environmental permitting for this project.

**Year: 2014**

**Region:** Kivalliq

**Community/Location:** Baker Lake, Chesterfield Inlet

**Number in Party:** 5

### **Understanding Community Change in the Qikiqtaaluk: Examining social cohesion of communities affected by the Mary River Project through community based research**

**License Number:** 02 027 14Registry

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### **Summary/Objectives**

QIA is leading this project to research community change in four communities considered affected by the proposed Mary River Iron Ore mining project, and to develop an understanding of how resource development affects social, collective, and individual well-being.

**Year: 2014**

**Region:** Baffin

**Community/Location:** Pond Inlet, Igloolik, Clyde

River, Cape Dorset

**Number in Party:** 5

**Understanding the Transfer of Inuit Knowledge including Hunting Skills to Inuit Youth, Nunavut, Canada: Implications for Sustainable Arctic Food Systems**

**License Number:** 02 037 14N-M

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**Summary/Objectives**

Working in close collaboration with Inuit hunters, community members and the local school, my project will document the transfer of Inuit Knowledge (Inuit Qaujimagutuqangit), specifically hunting skills, from elders to youth in the community.

**Year:** 2014

**Region:** Qikiqtani

**Community/Location:** Igloolik

**Number in Party:** 3

**Unsettling the Indigenous**

**License Number:** 03 009 14N-M

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**Summary/Objectives**

This research concerns the history of Inuit living in the communities of Gjoa Haven and Naujaat. It builds from the experience of Netsilik Inuit spending winters with Norwegian explorer, Roald Amundsen, as part of his travel through the Northwest Passage in 1903-05. Much of the credit belongs to Netsilik Inuit who lived in the area and taught the crew how to survive the challenging conditions of Arctic winters. At the same time, the Canadian government sent the ship Neptune north to the Foxe Basin near the present-day community

of Naujaat to assert Canadian sovereignty in the region.

**Year:** 2014

**Region:** Kivalliq & Kitikmeot

**Community/Location:** Naujaat, Gjoa Haven, Arviat

**Number in Party:** 4

**Wage Employment and Harvesting at Clyde River**

**License Number:** 02 038 14N-M

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**Summary/Objectives**

The food security (or, increasingly, the food insecurity) of Aboriginal communities across the Canadian North, but especially of Inuit living in Nunavut, has taken on an increasing urgency in light of anticipated negative environmental and associated socioeconomic consequences due to climate change. To date, however, the preponderance of research on this subject in relation to Inuit has been approached either from a vulnerability to climate change focus or from a market cost-nutritional health one. In reality, neither approach has paid serious importance to the traditional resources as a material and cultural important component of food security for Nunavummiut (here, Inuit citizens of Nunavut). The research being proposed is intended as a step to redress this knowledge gap.

**Year:** 2014

**Region:** North Baffin

**Community/Location:** Clyde River

**Number in Party:** 2

**Where Do We Keep Our Past? Working Towards an Indigenous Museum and Preserving Nunavut's Archaeological Heritage**

**License Number:** 03 015 14N-A

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### **Summary/Objectives**

Everyone in Nunavut does not have access to a museum, especially one that holds cultural material. There is little know information on how a museum in Nunavut would affect the Inuit. Through research with existing cultural centres in Canada we are able to learn what museum and heritage centre models work best for indigenous and isolated communities. In my research I will explore the potential for major cultural impacts in Nunavut with the development of a museum we can call our own. I intend to use my research to work towards the establishment of the proposed Nunavut Heritage Centre, and my goal is to have Inuit archaeological collections returned to Nunavut.

**Year: 2014**

**Region:** Kitikmeot, Kivalliq

**Community/Location:** Cambridge Bay, Rankin Inlet

**Number in Party:** 1

### **Why Leave Home? Inuit Engagement with Mining & Mining Policy.**

**License Number:** 02 021 14N-A

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### **Summary/Objectives**

I'm interested in talking to community members in Igloolik about the factors that go into individuals decision making process to leave home and take a job at the Mary River Project. "Home" is broadly defined, including experiences of ties to community and family, land use, livelihood, and identity. My goal is therefore to conduct semi structured

interviews with Inuit in Igloolik about their reasons to leave or not to leave home to work at the Mary River Project. My aim is to conduct research that both fulfills my doctoral requirements and possibly contributes to QIA's Social Policy Department's major research project Understanding Community Change: Examining Social Cohesion in the in the Qikiqtani through Community Based Research.

**Year: 2014**

**Region:** Qikiqtani

**Community/Location:** Igloolik

**Number in Party:** 2

### **Yukon, Northwest Territories & Nunavut Social Enterprise and Non Profit Organization Survey 2014**

**License Number:** 05 013 14Registry

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### **Summary/Objectives**

This is a part of a Canadian Project looking at the social enterprise sector in Canada using surveys to look at the size, scope and impact they have in regions. Social enterprises are becoming a successful type of organization to provide goods and services to communities and having a clear, social, cultural, environmental or employment mission.

**Year: 2014**

**Region:** Nunavut Wide

**Community/Location:** All communities

**Number in Party:** 5

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