CEAA SCREENING FORM
Department of Indian Affairs and Northern Development (DIAND)

1. Public Registry Required Information

Applicant: **Emma Pike**
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Contaminants and Remediation Directorate
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CEAR Number : **08-01-37711**

Subject Descriptors: Land Use

Alias Project Title: Johnson Point Site Remediation program

Lead RA and Screening Division: DIAND, Operations

RA Contact: DIAND North Mackenzie District, Tel: 867-777- 3361

Lead RA Trigger Types: CEAA Law List Regulations

Other Screening Trigger Types: Inuvialuit Final Agreement

EA Start Date: February 21, 2008 (CEAA s.5 notification and scope)

EA Type: Screening

Physical Activity as identified from Inclusion List: Land use

Physical Work Being Assessed: Land Use, Water use and Clean-up

Phase of Project / Primary Undertaking: Camp and Remediation Program

Multiple Activities: _ _ Yes _X_ No Indicate One: camp, fuel storage and clean up

Project Category Code: **Point** Linear Areal (Underline one**)**

Geographic Place Name: Johnson Point, Banks Island NWT

EA Determination: 20-1-a

EA Determination Date: April 09th, 2008

Estimated monitoring termination date: 2008 -2010 - DIAND Land Use Inspector

EA Terminated: No

2. General File Information

DIAND Land Use Permit Number: N2008X0011
NWT Water License Number: N7-1-1824

Type of Applications: New land use permit, and Water License

Present license/permit/lease number: previous WL N7L1-1814

Proposed Date of Activity: July 2008

Other RAs or Screening Divisions: Provided in Appendix D, "CEAA EA Coordination"

Other RA Types of Approval: Provided in Appendix D, "CEAA EA Coordination"

Project File Locations: DIAND North Mackenzie District (Inuvik)

DIAND District: North Mackenzie, Inuvik

3. Proponent

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Type of Proponent: Government

4. Project Location

Appendix G

Topographic Map Sheet Number: 88 B

Latitude / Longitude: Latitude 72 45' 10" Longitude 118 30' 00"

Watershed: unnamed river north of Johnson Point

Street Name: N/A

Surrounding Land Status: Crown Lands in the Inuvialuit Settlement Region

Special Designation: Johnson Point is located within the boundaries of the Sachs Harbour Planning Area as defined in the *Sachs Harbour Conservation Plan*.

5. Proposed Project and Schedule:

Johnson Point is an abandoned oil and gas staging area at which there was concern about the integrity of fuel tanks which were storing residual fuel. When exploration activities in the region ceased in the late 1970's / early 1980's, the Site was abandoned and responsibility for the Site reverted back to INAC.

Originally developed in the late 1960's as a support and staging area for oil and gas exploration throughout Banks Island, the Site is now abandoned. An assortment of camp trailers and other equipment associated with Nodwell or cat-camps were left behind. In addition to the camp material, there are 25 large bulk fuel tanks in or adjacent to the tank farm, and many other smaller fuel storage containers and construction supplies scattered around the site. The deteriorating condition of these tanks, many of which still contained large quantities of residual fuel, presented a significant risk to the environment.

To prepare for the waste fuel disposal and to determine the scope of work required at the Site, CARD conducted an initial Environmental Site Assessment (ESA) and Inventory in 2005 (under LUP N2006J0024) which included:
• preliminary soil and water sampling,
• inventory of structures, equipment and debris at the site,
• inventory of tanks and associated contents including sample collection, and
• a geophysical survey to locate and determine the extent of potential buried debris areas or existing landfills

INAC is focussed on accelerating the remediation of contaminated sites in the North to protect the health and safety of Aboriginal people, Northerners and the integrity of the environment under the Federal Contaminated Sites Action Program (FCSAP). The work proposed for Johnson Point is a direct response to community concerns from the Sachs Harbour Hunters and Trappers Committee (HTC) regarding the waste materials, abandoned buildings, and contaminated soils at site. The proposed work therefore focuses on the removal of this materials and the remediation of these soils for the protection of people and wildlife that visit this area.

During 2005, 69 fuel storage containers, ranging in size from 205-L barrels to large bulk fuel tanks in and around the tank farm, were inventoried and waste fuel samples were collected. Characteristics of the waste fuel were examined to determine the composition of the waste fuel (whether the contents are diesel, gasoline, etc.) and the suitability of incineration for fuel disposal. In addition, the approximate volume of hydrocarbons and sludge material in the bulk storage tanks at the Site was measured and inventoried in preparation for incineration in 2006.

Following the completion of the initial assessment at the Site, CARD completed several tasks during the summer of 2006. The first component, addressing fuel storage issues at the site involved mobilization of a crew and an incinerator to the site by air. A total of 108,150 L of waste fuel was incinerated, sludge on tank bottoms was consolidated, and tanks were steam-cleaned. Water collected during sludge consolidation and steam-cleaning of the tanks was treated, tested, and discharged as per the NWT Water Board Water Licence N7L1-1814 at a location that was a minimum of 30 metres from natural drainage courses and 100 metres from fish bearing waters. A total of 104,000 L of treated wastewater was treated and discharged. The second component was to determine the scale and scope of contaminants on site and collect the necessary information to develop remediation options. This assessment included soil sampling program with test pits excavated to permafrost to delineate the extent of metal and hydrocarbon contamination, to determine the extent of and the type of wastes buried in existing landfills, and to gather geophysical data for engineering requirements. Water samples were also collected and a detailed inventory of all hazardous and non-hazardous materials on site was conducted.

In 2007, using the information compiled during the 2005 and 2006 environmental site assessments, CARD developed the Johnson Point Remedial Action Plan (RAP) in consultation with the Sachs Harbour community representatives. The primary tasks and tentative schedule proposed for the remediation of Johnson Point along with the options which were evaluated are discussed in this document which is also included with this application package.

Due to the remote nature of this Site, emergency response times are significantly increased. To ensure the safety of staff at this site, the successful contractor will be required to complete site orientations with all staff, proper training will be provided for individual tasks, and approved Personal Protective Equipment (PPE) will be provided and worn as required. In addition, an Emergency Medical Responder (EMR) will be required to be on-site at all times to provide advanced medical treatment in the event of an emergency.

Assessment and consultation have identified the following primary concerns at Johnson Point:
- **Hydrocarbon-impacted soils,**
- **Hazardous and Non-Hazardous Wastes – Demolition and Site Debris, and**
- **Existing landfills**

Hydrocarbon-impacted soils at the Site are located in 2 separate areas of the site and will be addressed using two separate approaches based on the location of the impacted soils.

The first area of hydrocarbon-impacted soil is located adjacent to the Tank Farm. CARD contracted Jacques Whitford Ltd to conduct a Human Health and Ecological Risk Assessment (HHERA) at the Site in 2007. This study determined that these hydrocarbons did not present any human health or ecological risks. From these results, site specific target levels (SSTL) based on the northern environment were developed by Jacques Whitford to ensure that potential receptors including visitors and wildlife are protected for the future. The SSTL for hydrocarbon-impact soils at Johnson Point is 4570 mg/kg. These soils will be treated by alluing in a hydrocarbon-impacted soil disposal and treatment area located west of the Tank Farm within Potential Borrow Area 2.

Alluing is a process that involves aeration of soils through the use of a special excavator bucket. The alluing process has been proven effective in northern environments and was used by CARD through our remediation contractor, E. Grubens Transport, during the remediation of hydrocarbon-impacted soils at Atkinson Point – BAR-D during the summer of 2007. Alluing can often allow soils to reach the selected criteria significantly faster than other treatment methods which make it especially useful on remote northern sites with very short field seasons available for treatment.

As the Apron Area of the Site is located in close proximity to several more sensitive environments (the un-named river, the Prince of Wales Strait, and the Apron Pond), CARD has selected the CCME criteria for the protection of groundwater for aquatic life (F1 – 230 mg/kg, F2 – 150 mg/kg). These criteria are very conservative due to the inclusion of a 10x safety factor and will be applied throughout this area of the Site to protect surrounding aquatic environments. Contaminated soil from this area will be excavated, screened and sorted based on the SSTLs for the Site, and transported to the hydrocarbon disposal and treatment area. Clean borrow material sourced from one of the identified potential borrow areas will be used to backfill the excavations in the Apron Area. Hydrocarbon impacted soils with concentrations of total petroleum hydrocarbons in excess the SSTLs will be treated by alluing and then all excavated soil in the hydrocarbon-impacted soil disposal and treatment area will be re-contoured to establish natural drainage.

Existing infrastructure at the Site consists of a tank farm with 19 large tanks and various other containers, several trailer camp units with supporting equipment (CAT loader and a nodwell), and a variety of construction materials / debris. No new landfills will be constructed at Site as the Site has a small debris volume and lacks sufficient volume of suitable borrow material for landfill construction (in comparison with some DEW Line projects where landfills were constructed within the region).

The facilities at Johnson Point contain a variety of hazardous materials including asbestos and lead amended painted materials along with old batteries, electrical components, and other debris throughout the site. These materials will be collected, using the proper safety protocols (PPE, etc), containerized during the demolition process, and transported off-site to a licensed disposal facility. All guidelines and legislation on the transportation of hazardous materials will be adhered to during this process. The planned remediation of Johnson Point also includes the disposal of non-hazardous materials from the demolition activities and general site debris. Non-hazardous site debris includes cleaned and crushed barrels, scrap metal, unpainted wood, plastics, and domestic type wastes.

Disposal methods for both hazardous and non-hazardous waste are specified in the individual sections of the RAP. With very limited volume of suitable borrow material at Johnson Point, the RAP does not involve construction of any new landfills. Implementation of the Johnson Point RAP will involve the transportation of both hazardous materials (mainly lead-amended painted materials and small amounts of asbestos) and non-hazardous materials to off-site licensed disposal facilities in Inuvik or southern Canada (including all tanks, buildings, and surface debris found throughout the Site). The schedule for materials removal will be determined by the successful contractor; however, there is potential for off-site transport of materials in all three years of this project (dependent on weather and marine barge availability).

The final component involved in the remediation of the Site is the placement of the additional cover materials on the existing landfills. Assessment results indicate that the materials in these existing landfills are primarily non-hazardous in nature and not generating any leachate.

Camps

These activities will be supported by a temporary construction camp consisting of hard-side, ATCO trailer type units. Camp capacity is anticipated to be approximately 30-40 persons. Camp wastes will be managed in accordance to industry standards to reduce the potential for wildlife attraction/interaction. Solid wastes will be incinerated in a certified solid waste incinerator operated according to the manufacturer's specifications. Two sources of wastewater, requiring separate treatment systems, will be generated by these activities.

Waste water

Wastewater from the camp (grey-water from the kitchen, showers, etc.) will be collected and treated through a self-contained water treatment plant with capacity to treat oil and grease, suspended solids, and microbial components. The camp will utilize a waterless toilet system. Segregating the 'black water' waste will increase the treat-ability of the camp wastewater as this waste will be incinerated and the ash removed from the Site.

Wastewater generated by any tank washing activities will receive preliminary treatment to remove the majority of dissolved and free-phase hydrocarbons and then recycled during further cleaning activities to reduce the volume of water required and wastewater generated. Final treatment of tank-washing wastewater, along with any hydrocarbon-impacted water from excavation dewatering activities, will then remove any suspended solids and residual hydrocarbons or metals. Once laboratory testing indicates that treatment has achieved the licence criteria approved by the NWT Water Board, treated water will be discharged to the land. The discharge location will be located a minimum of 30 m from natural drainage pathways and 100 m from any fish-bearing water-bodies (the un-named river and the Prince of Wales Strait) at a location approved by the Designated Representative and the Inspector.

New Technology

The specifications developed for the proposed activities throughout these activities will include only proven technology. Contract proposals which include unproven or innovative ideas will require supporting documentation of the suitability of the proposed technology. Once the contract for the work has been awarded, this information will be provided to the Inspector as required under the Land Use Permit.

Alternatives

The primary purpose of this project is to mitigate the environmental impacts of previous activities to the natural environment. To achieve this, CARD has conducted extensive environmental site assessment activities and consultation with the communities of Sachs Harbour and Ulukhaktok. A Remedial Options Evaluation meeting was hosted by CARD and PWGSC in Sachs Harbour on April 17, 2007. The meeting was attended by delegates of the Sachs Harbour Hunters and Trappers Committee (HTC), the Sachs Harbour Elders Committee, and the Sachs Harbour Community Corporation. The **Johnson Point - Remedial Action Plan (RAP)** was the result of these assessment and consultation activities.

A summary of the alternatives considered has been included below– ***Alternatives / MethodSelection*** with the chosen alternative in **bold**. For additional details regarding the method selection and alternative considered, please refer to **Section 6.0** of the attached RAP included in the project description package. In each case, the recommended solution was based on extensive site-specific data and technical experience in developing remedial options in northern environments.

Table 2 - Alternatives / Method Selection

Alternatives Considered	Influential Factors Considered	
	Pros	**Cons**
Hydrocarbon-Impacted Soils		
Landfarming	• Proven for Arctic conditions • No specialized equipment needed • Experienced personnel in the North due to previous use in the North • Expected to achieve criteria within 3 to 5 years which is reasonable for remote sites	• Highly disruptive to the Site (significant area required to accommodate landfarm and a large volume of borrow material required to backfill impacted area. • Moderate to high cost
Alluing of Soils	• Proven for volatile hydrocarbons such as those present at this Site • Relatively inexpensive • Less disruptive to the site as treated soils can often be returned to the excavation	• Dust and volatilized hydrocarbons may require alluing operator to wear a respirator • Pre-treatment with a chemical oxidation product may be required to treat less volatile hydrocarbons
Chemical Oxidation	• Proven technology for treating hydrocarbons • Technology will work in cold climates during very short time periods	• Required chemicals often costly, highly reactive, and dangerous to handle / transport • Potential to impact permafrost in applied area
Monitored Natural Attenuation	• No large equipment required • Low cost • Not Disruptive of the Site	• Very long term, likely greater than 20 years so it is not suitable if the environment is being impacted
Remediation Strategy for Site Debris		
Transport of all site waste debris to a licensed off-site disposal facility	• Cost effective • Reduced disturbance to local environment • Removal of known site contaminants	• None
Transport of all hazardous site debris to a licensed off-site disposal facility and construction of an on-site engineered, non-hazardous waste landfill	• Reduced disturbance to local environment • Reduced off-site shipment requirements	• Additional onsite earthworks for landfill construction • Imported landfill erosion protection required • Long term monitoring required

Remediation Strategies for Existing Landfills / Debris Areas	
All surface debris will be consolidated and removed from Site. Additional cover materials may be added to some of the existing landfills to ensure their long-term performance.	Existing landfills have performed well with no significant erosion. Additional cover and some erosion-resistant materials would be added to some areas. Testing indicates that the materials generally consist of non-hazardous materials. Also, no leachate has been detected from these areas. This approach will limit degradation of permafrost in the areas while ensuring that performance of existing landfills remains stable.

Traditional and Other Land Uses

Johnson Point is located within the boundaries of the Sachs Harbour Planning Area as defined in the *Sachs Harbour Community Conservation Plan* (SHCCP) and is also on the boundary of the Ulukhaktok Planning Area as defined in the *Olokhaktomiut Community Conservation Plan* (OCCP). These publications define the following designated land use categories and are summarized in ***Table 3– Designated Land Use Categories***:

Table 3– Designated Land Use Categories:

	Definition
Category A	Lands where there are no known significant and sensitive cultural or renewable resources. Lands shall be managed according to current regulatory practices.
Category B	Lands where there are cultural or renewable resources of some significance and sensitivity but where terms and conditions associated with permits and leases shall assure the conservation of these resources.
Category C	Lands and waters where cultural or renewable resources are of particular significance and sensitivity during specific times of the year. These lands and waters shall be managed so as to eliminate, to the greatest extent possible, potential damage and disruption.
Category D	Lands and waters where cultural or renewable resources are of particular significance and sensitivity throughout the year. As with Category C, these areas shall be managed so as to eliminate, to the greatest extent possible, potential damage and disruption.
Category E	Lands and waters where cultural or renewable resources are of extreme significance and sensitivity. There shall be no development on these areas. These lands and waters shall be managed to eliminate, to the greatest extent possible, potential damage and disruption. This category recommends the highest degree of protection in this document.

Johnson Point is located within or in close proximity to the designated land use areas listed in ***Table 4 – Johnson Point and Associated Designated Land Use Areas***:

Table 4 – Johnson Point and Associated Designated Land Use Areas		
Designated Land Use Status	**Proximity to Site**	**Description of Sensitive Cultural and/or Ecological Components** (information from SHCCP)
Class C - 734C Prince of Wales Strait (SHCCP and OCCP)	Site is located on the Strait, on the boundary of this management area.	The route is used for travel between Sachs Harbour and Holman and has been used for past and present subsistence harvesting of ringed seals, bearded seals and polar bears. The area is considered an important marine environment due to ocean currents and upwellings. The Strait is also an important beluga whale migration area (June to September), year round bearded seal habitat (seal pupping season from January to May) and used by denning polar bears (November to April). The SHCCP identifies potential increases in marine traffic through the Strait as potentially harmful to the marine life in the area and states that marine traffic through the area should be restricted and additional marine ecosystem research should be conducted.
Class C – 615C Banksland Coastal Waters (Charr) (SHCCP)	Site is located on the Strait, on the boundary of this management area.	Feeding of anadromous Arctic charr in open water.
Class D - 614D Banksland Rivers (SHCCP)	The site is located within the boundary of this management area.	Both anadromous and non-anadromous forms of Arctic charr stocks are found in this management area. At Johnson Point and Headwater Lake (which feeds the un-named river that flows into the Prince of Wales Strait at Johnson Point, just north of the infrastructure at the Site) lake trout and/or Arctic charr are present as year-round residents or seasonal migrants. Sachs Harbour residents indicated in consultation meetings that Arctic charr are present in the un-named river that flows past the site.
Class E – 619E Banks Island Caribou Calving Areas (SHCPP)	The site is located approximately 15-km north of this management area	This area is a critical calving ground for Arctic Islands and Peary caribou. Animals start moving north in April and May with calving beginning in late May to early June. A draft Banks Island Multi-species Management Plan is under development by RWED, a regional recovery plan for caribou herds on Banks Island is being developed and the Sachs Harbour HTC has by-laws in place to restrict harvest.

Marine transport activities for these proposed remediation activities are limited to mobilization / demobilization of equipment and materials (including Type 1 granular materials) along with potential re-supply for the camp and associated activities. These activities will be very limited in duration (expected to be limited to 1-2 barge trips over a 3-5 week period in August of each year).

Infrastructure improvements associated with these activities may include minor development of temporary barge landing ramps on the beach area adjacent to the beach apron area. These activities would be supervised by the Designated Representative, following recommendations from Department of Fisheries and Oceans (DFO), regarding the preservation of the marine environment. There will also be minor upgrades to the Site roads to facilitate transportation of materials and equipment around the Site. Following the completion of the tasks, these temporary on-shore developments along with any culverts (existing and new) removed and natural drainage will be re-established. This approach will ensure no impacts to the Prince of Wales Strait and the associated designated land use areas (734C Prince of Wales Strait (SHCCP and OCCP) and 615C Banks land Coastal Waters (Charr) (SHCCP)).

Air traffic in the area will, when possible, maintain an altitude of >300-m (975 ft) when flying over the Prince of Wales Strait when beluga whales have been observed in the area (*Environmental Impact Screening Committee – Operating Guidelines and Procedures* (EISC – OGP)). The airstrip at the Site will be left in an abandoned condition once the remediation tasks have been completed.

Johnson Point is located within the designated land use area 614D Banksland Rivers (SHCCP). On site activities in this area are not expected to have significant negative impacts as the activities will include spill contingency plans to prevent further release of hydrocarbons into the environment while operating equipment at the site. In addition, the purpose of the proposed activities at Johnson Point is to create a positive impact to the site by removing the potential for further release of hydrocarbons into the environment by treating the source (hydrocarbon impacted soils). Any excavations or other earthwork activities conducted in close proximity to freshwater or marine environments will have sediment control measures in place such as silt fencing.

Johnson Point is located approximately 15-km north of a caribou calving ground defined under designated land use area 619E Banks Island Caribou Calving Areas (SHCPP). Flight operations at the site will, when possible, maintain >610-m (2000 ft) when flying point to point in the vicinity of caribou and other wildlife species (*Environmental Impact Screening Committee – Operating Guidelines and Procedures: Appendix I*) and flights over the caribou calving grounds will be avoided. Most annual operations at Johnson Point are not expected to commence until early July so impact on caribou in this area should be minimized.

Accidents and Malfunctions:
• Unanticipated releases of mechanical fluids, fuel or hydrocarbons could contaminate soil, water or the atmosphere. Potential accidents and malfunctions that might adversely effect the environment include:

- Ground disturbance from human traffic on sensitive terrains.
- Fuel spills and drill additive spills could result in ground contamination (from mechanical failure or operator error)
- spillage of wastewater from a waste treatment system malfunction
- Wildlife encounters, such as an attack on humans (surprise encounter) or personnel shooting and injuring wildlife (responding to perceived threat or actual attack) could occur.
- Wildlife disturbance, such as disturbance of a bear den or caribou / reindeer migrating through the program.
- Severe weather

Information Sources Used:

X_ Other government data __ Historical maps __ Scientific reports _X_ Project Description for the EISC		X_ CEAA public registry system information __ Contour maps __ Oil and gas water license questionnaire _X_Other: application & additional company information

6.a) Description of Environment

Physical Environment

The proposed program is located on Banks Island which lies in the Northern Artic Ecozone. The terrain consists of low, rolling tundra plains with rock debris left by glaciers. The climate consists of a mean annual temperature of -16 ^{o}C, a mean winter temperature of -30 ^{o}C, a mean summer temperature of -5 ^{o} C, and mean annual precipitation of 142 mm.

Soil and Permafrost

Continuous permafrost conditions are found at Johnson Point. The maximum depth to permafrost at this location in mid-summer is estimated to be between 0.5-1.8 metres. The presence of permafrost is expected to limit groundwater movement to a shallow depth. The soils throughout most of the site consist mainly of sandy gravel.

Wildlife

Johnson Point is home to Peary Island caribou, polar bears, muskox, artic hare, artic fox, lemmings, and snowy owls. The Peary Island caribou have a calving ground approximately 15 km to the north of Johnson Point. The caribou start moving north in April and May with calving in late May to early June.

Aquatic Fauna

Johnson Point is located on the Prince of Wales Strait which is home to many marine mammals. These include beluga whales, ringed seal and bearded seal. The Prince of Wales Strait is an important area for beluga whale migration, is used for polar bear denning and year round habitat for seals.

Fish species found in the area include artic char that are found in a small river on the site and in the Strait. In the inland lakes and rivers there are lake trout.

6.b) Description of Socio-economic and Cultural Environment

This project is located on Banks Island approximately 270 kms. Northeast of Sachs Harbour. Inuvik is the major supply and services point for the region having both highway access and daily jet service to the south. Sachs Harbour has bi-weekly air service from Inuvik in smaller aircrafts.

Socio-economic Benefits Package will form part of the requirements for proposals as per the contracting process. This will ensure that this project provides benefits to the Inuvialuit.

7. Consultation on Project by Proponent

CARD has been working closely with the Inuvialuit Regional Corporation (IRC) to ensure Inuvialuit involvement in the remediation of Johnson Point.

The IRC suggested that CARD consult with the Sachs Harbour Hunters and Trappers Committee (HTC) and the Inuvialuit Game Council (IGC). In December 2005, CARD attended the IGC quarterly meeting in Inuvik at the invitation of the IGC. CARD presented information on the Contaminated Sites Program, reviewed the assessment activities that had been completed at Johnson Point during 2005, and summarized the activities that are proposed for 2006.

In April 2006, CARD initiated a Traditional Knowledge/Community survey in Sachs Harbour regarding Johnson Point and the surrounding area. The survey was contracted to the Sachs Harbour HTC and is presently being conducted by Joey Carpenter, an elder from Sachs Harbour. CARD and the Sachs Harbour HTC prepared the survey to collect information about how Johnson Point is used by the community of Sachs Harbour (both past and present), how the site was used by industry, what animals are found at the site at different times in the year.

In addition to the survey, CARD visited Sachs Harbour from April 24-27, 2006. CARD attended an HTC Special Members Meeting at the invitation of the Sachs Harbour HTC on April 25, 2006 to present an update on Johnson Point. During this presentation, information was provided about the process of evaluation and selection of sites for the Contaminated Sites Program, the tasks completed at Johnson Point in 2005 and a summary of the work proposed to be completed in 2006.

During this meeting, members provided information about locations around Johnson Point where Arctic charr and caribou could be found. The members also indicated that numerous archaeological sites may be located north of Johnson Point along the Prince of Wales Strait. This information was used by CARD in the design of the 2006 field program and during the development of a remediation plan for the site.

CARD conducted a site visit to Johnson Point with elders and some members of the Sachs Harbour HTC on August 13, 2006. Comments from elders and HTC members during the tour of the site were used by CARD to direct further testing for contamination at Johnson Point and to help avoid sites of cultural importance.

In the spring of 2007, following the 2006 environmental site assessment, CARD and PWGSC visited Sachs Harbour. A Remedial Options Evaluation Meeting, held on April 17, 2007, was attended by delegates of the Sachs Harbour Hunters and Trappers Committee, Community Corporation, and Elders Committee. The various technically feasible options for each site component were discussed. Options were selected based on traditional knowledge, anticipated future community use of the area, and the technical benefits and weaknesses of each approach.

Consultation Carried out by the NWTWB

The NWTWB did not request comments on the application to be considered with the Type B licence application. During the review of the 2006 application, no comments were received and the current application is for the continuation of the remediation activities. The NWTWB did publicly advertise the application and received comments from Environment Canada.

The NWT Water Board did review the comments submitted to the Environmental Impact Screening Committee for the Inuvialuit Settlement Region on the overall project description and the comments submitted to DIAND North Mackenzie District Office on the land use application and no significant negative comments related to the application for the water licence N7-1-1424 were noted.

Environment Canada submitted comments to the NWT Water Board, which were virtually identical to those it submitted to the EISC and the DIAND North Mackenzie District Office.

The NWTWB views the proposed activity as a continuation of activities undertaken under CARD's 2006 N7L1-1814 water licence, with some modifications or additions to the project, albeit with a new licence as requested.

Government Consultation

DIAND sent out a letter asking for comments to government agencies, local aboriginal and local government groups. Responses to this request are listed below.

Federal Government		**Contact Person**	**Dates Comments Received**
NWT Water Board	✔	Peter Bannon	CEAA response – May 1 & 8 2008
DFO/CCG	✔	Ernie Watson	Letter to EISC – February 25,2008
NEB	✔	Pam Romanchuk	CEAA response – Feb. 22, 2008
EC	✔	Ivy Stone	Letter to INAC – April 1st, 2008
NRCan	✔	M. Turpin	CEAA response – Feb. 25, 2008
Parks Canada	✔	Nelson Perry	CEAA response – Feb. 25, 2008
Territorial Gov't .		**Contact Person**	**Dates Comments Recieved**
ENR	✔	Claire Singer	Letter to INAC – April 2, 2008
Health	✔	Bob Mellet	No Comment
Transportation	✔	Sandra Cashin	CEAA response –
MACA	✔		No comment
PWNHC	✔	Tom Andrews	No comment
Other			

Aboriginal Groups		**Contact Person**	**Dates Comments Received**
EISC	✔	Barb Chalmers	Screening decision letter– Maech 10,2008 (IFA's 11(17)(b))
Inuvik Hunters & Trappers Committee	✔	Sammie Lennie	No comment
Tuktoyaktuk HTC	✔	Lila Voudrach	No Comment
FJMC	✔	Robert Bell	No comment
Inuvialuit Game Council	✔		No comment
Wildlife Management Advisory Council (NWT)	✔		No comment

Public/Interested Parties/Other		**Contact Person**	**Dates Comments Received**
Inuvik Comm. Corp.	✔		No comment
Ulukhaktok Comm Corp.	✔	Colin Okheena	Letter to INAC – March 11, 2008
Tuktoyaktuk Comm Corp.	✔		No Comment
Inuvialuit Land Administration		Reagan Stoddart	Letter to INAC – March 19, 2008

	✔		

Summary of Aboriginal Group and other Public Concerns

EISC:

- The EISC decided that the development would have no significant negative impact on the environment or Inuvialuit wildlife harvesting in the Inuvialuit Settlement Region (IFA Section 11. (17)(b).
  In rendering its decision, the EISC made the following recommendations:

  The EISC has approved this project for the period 2008 to 2011field seasons as requested. In providing this approval the EISC reminds the developer that any significant change in the project description or a significant incident will require the re-submission of the project for environmental screening. The developer should submit an annual report to the EISC on the project.

Inuvialuit Land Administration:

Offer the following comments/ questions to assist the assignment of terms and conditions for this project:

- Ensure that the Hydrocarbon Treatment and Disposal Area is constructed to contain the hydrocarbon contaminated soils and potential water accumulation during the alluing process. The picture at the top of Page 8 shows soil on a liner held down with sandbags. It is not clear how the soil/water is contained on this liner. ILA suggests that efforts be made to ensure that the surrounding area is not contaminated by soil/water that contains hydrocarbons.

- If the alluing process does not prove successful (at lowering hydrocarbon levels to CCME guidelines) over one summer season, will the soil be returned to excavation site or retained in the Hydrocarbon Treatment and Disposal Area for continued remediation in the following seasons?

- What is the inspection timeline for landfills post-remediation? The project description mentions that there will be no requirement for monitoring, but will there be scheduled inspection events post-remediation to ensure site stability (ex. thermal attenuation of excavated/back-filled areas or landfills)?

Sachs Harbour Hunters and Trappers Committee

- No Comment

Sachs Harbour Community Corporation

- No Comment

Ulukhaktok Hunters and Trappers Committee

- No Comment

Ulukhaktok Community Corporation

- At this time we do not have any concerns with the project . We do ask that this project be monitored closely to ensure that they are following their work plans as specified in the application.

Aklavik Hunters & Trappers Committee:
- No comment

Aklavik Community Corporation:
- No comment

Inuvik Hunters & Trappers Committee:
- No comment

Inuvik Community Corporation:
- No comment

Tuktoyaktuk Hunters & Trappers Committee:
- No Comments

Tuktoyaktuk Community Corp.
- No Comment

Fisheries Joint Management Committee:
- No comment

8.a) Description of Effects (Tables A, B and C), Mitigation, Residual Effects and Significance.

Environmental and Cumulative Environmental Effects

The project in itself is a mitigation to existing environmental impacts and hydrocarbon contamination.
The most significant potential environmental effect, therefore, would be if this project did not go ahead or if there were delays in its completion. The proposed timing, duration and location of the activities on the site should address any other potential environmental impacts.

Cumulative Effects and Mitigation

No cumulative effects from this project are anticipated. It should be noted that these activities will result in the remediation of the Site, essentially restoring the site to its natural state.

8.b) Effects of the Environment on the Project

Periods of heavy rain could limit assess to the site to smaller aircraft and poor visibility or limited aircraft availability could delay re-supply flights to the site operations. The proposed activities may require minor airstrip upgrading to ensure safe and consistent accessibility to the Site. Many of proposed activities are scheduled early in the field season to reduce flight accessibility issues and minor improvements to the airstrip itself may be completed to ensure more consistent access.

9.a) Summary of Proponents Mitigation Measures

Equipment operation within the un-named river will be minimized to prevent negative impacts to aquatic habitats. When operations are required for purposes of addressing impacted sediments, appropriate sediment control measures will be implemented and operations will be scheduled to avoid impact to Arctic Char migration.

INAC has contacted the Prince of Wales Northern Heritage Centre (PWNHC). No known archaeological sites are in the Site area. However, if any potential archaeological sites are found during the completion of the work, the PWNHC will be notified and the area will not be disturbed.

Water and soil confirmation samples will be collected throughout the remediation activities to determine that the remediation objectives at the Site have been achieved. No negative impacts are anticipated from these activities. Excavations of contaminated soil areas will be backfilled with clean fill or regraded ensuring the protection of underlying permafrost and preventing subsidence.

Wash effluent from barrel/tank cleaning activities and grey/black water generated by the camp will be collected and treated to meet the water license criteria approved by the NWT Water Board. These criteria have been used as the standards for DEW-Line clean-ups within the region and generally include a 10x safety factor above the lowest observed effects level (LOEL). They have been selected to ensure the protection of the most sensitive organisms so discharge of the effluent will not present a risk to the environment. Once testing by an accredited laboratory indicates that the treated effluent has met the proposed water license criteria, it will be released onto the land at a location approved by the water license Inspector. The treated effluent will not be discharged if the proposed criteria are not met.

The camp for the proposed activities will have a perimeter defence around the camp consisting of an electric fence or noise maker. The fence is to be dismantled at the conclusion of the work. Also, waste generated on site will be incinerated daily and managed properly to reduce the potential of wildlife attraction.

The incinerators used in this operation for waste disposal are required to be maintained and operated according to manufacturer's specifications and therefore will not impact air quality. To mitigate any effects of fuel spills, proper fuel handling techniques will be followed and a spill contingency plan will be in place with spill kits at all fuel transfer locations.

An Inuvialuit Wildlife monitor will be on site at all time to monitor for wildlife.

Other Land Users
Residual cumulative effects from other users will be low in magnitude, local in extent and immediate to short term in duration.

9.b) Reviewers Comments

Northwest Territories Water Board

The NWTWB also examined all of the environmental information as described or referenced in this environmental Screening Report in making its conclusion. The NWTWB is of the view that CARD should implement all of the policies, practices, mitigative measures, recommendations and procedures for the protection of the environment referred to in its application and that a condition is required to that effect.

The NWTWB is of the view that if CARD's environmental protection procedures and mitigative measures are implemented, as well as any conditions imposed by the NWTWB Type B water licence that may be granted, the proposed Project is not likely to cause significant adverse environmental effects.

GNWT/ENR:

a) Use of NWT Community-Based Waste Management Facilities
The Proponent has stated that:
"Implementation of the Johnson Point RAP will involve the transportation of: Non-hazardous materials to off-site licenses disposal facilities in Inuvik or southern Canada (including all tanks, buildings, and surface debris found throughout the Site)" (Page 10, Disposal of Hazardous & Non-Hazardous Waste to Off-Site Licensed Disposal Facilities).

The Proponent has proposed that waste be disposed of in the Town of Inuvik without providing evidence of prior approval from the community. This may result in negative impacts and unwanted liabilities to the community and/or Government of the Northwest Territories (GNWT).

b) Wildlife Attraction, Waste Management and Waste Incineration

The project description states:
"One or two wildlife monitors will also be at the Site at all times to ensure the Health and Safety of site staff and to deter wildlife from the Site as necessary while also ensuring that site activities minimize impacts to wildlife." (Page 11/12, Section 6, Summary of Potential Environmental Resource Impacts) and,
"Incinerators used in this operation for solid waste disposal are required to be maintained and operated in accordance with their manufacturer's specifications and therefore will not impact air quality. All waste generated on site will be incinerated daily and managed properly to reduce the potential for wildlife attraction." (Page 11/12, Section 6, Summary of Potential Environmental Resource Impacts)

The Proponent has described how wildlife will be deterred from the Site, however measures that minimize wildlife attractants have not been identified. Specifically, the Proponent should indicate how it will ensure proper handling, storage and disposal of waste. Wildlife attraction can lead to unwanted wildlife-human contact, and/or habituation of wildlife, both of which may lead to an increase in mortality of 'nuisance wildlife', due to kills by camp or regulatory personnel for safety reasons.

c) Waste Incineration

The Project Description states that:
"Incineration of camp wastes and unpainted wood material on site will be conducted in a manner that is consistent with industry standards and approved by the Designated Representative." (Page 13, Section 9 and 9(a), Proposed Disposal Methods and Garbage)

The Proponent has not provided the 'industry standards' that are to be applied and approved by the Designated Representative to ensure proper incineration. Also, ENR is unaware of the existence of such industry standards for incineration that are applicable to remote camp operations.

The Project Description further states that:
"The successful contractor will supply a packaged waste treatment system for the treatment of grey-water generated by camp operation. This treatment plant will have capacity to treat total suspended solids and microbial components. Waterless toilets will be used to segregate the 'blackwater' wastes from camp operation. These materials will be collected and incinerated in a solid waste incinerator operated in accordance with manufacturer's specifications." (Page 14, Section 9(a), Sewage (Sanitary and Grey Water))

Untreated sewage waste is not solid waste. ENR is unaware of the existence of solid waste incinerators designed for the purpose of blackwater incineration in the context of mobile or remote camps. The use of a generic solid waste incinerator for treatment of blackwater is a non-standard and unproven technique. It therefore seems unlikely that manufacturer specifications exist detailing how to incinerate untreated sewage waste/blackwater in a portable solid waste incinerator that is not intended for that purpose.

In the context of safety, health and environmental protection, the incineration of blackwater is a complex and

inherently high-risk process. It requires specialized handling, treatment, feedstock control procedures and the use of specialized technology capable of burning this type of waste. If these procedures are not adhered to significant environmental impacts will likely result. These include production of toxic compounds and a compromise in the ability to ensure that blackwater is handled and treated in a sanitary manner.

Staff from the Workers Compensation Board has indicated (in a prior discussion with ENR) that there is a significant risk for worker illness from contact with viral, bacterial or parasitic microorganisms in sewage, especially when handling plastic bags that contain fecal material. In order to demonstrate that the proposed method of sewage handling and disposal is appropriate, the Proponent requires a comprehensive health and safety program that includes details of a Medical Monitoring Program, Safe Work Procedures and Worker Education.

For further context, ENR is only aware of sewage waste incineration being conducted in a pathological incinerator, or tightly controlled co-incineration units used at a much larger scale, and in permanent municipal or industrial applications. These incineration units are complex and costly to operate, and are not generally suitable for portable use in temporary or remote camp settings.

Recommendations

1.1 Waste Management Recommendations
ENR recommends that the Proponent consolidate waste management planning information into a stand-alone **Waste Management Plan** for review and authorization prior to operations. Also, its 'Designated Representative', environmental monitors, operators and contractors should receive copies of this Plan in their Field Guide for use. The **Waste Management Plan** should include, but not be limited to:

• The identification of mitigative measures to prevent wildlife attraction, particularly considering waste storage procedures;

• The identification of non-hazardous, hazardous, combustible and non-combustible wastes, as well as plans for waste segregation and the strategy for implementation;

• A listing of expected waste types and quantities to be transported off-site;

• The identification of acceptable and alternate waste disposal facilities, for both hazardous and non-hazardous waste;

• Alternate disposal options in the case that the reference community's waste handling facility cannot accommodate the proposed and estimated waste types and quantities listed; and

• Detailed Incineration Management Strategies (below).

ENR recommends that the **Waste Management Plan** include *Incineration Management Strategies* that ensure that any incinerators meet the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans (CCME 20011) and the CWS for Mercury Emissions (CCME 20002). These Incineration Management Strategies should address:

• Selected incineration technology and rationale for selection (the minimum requirement to accommodate camp waste streams should be a dual-chamber, controlled-air incinerator);

• Specific incineration procedures and technology for the treatment of sewage waste;

• Recycling and waste segregation for waste streams entering the incinerator;

• Operator training and qualifications, as well as the identification of trained and designated operators;

• Procedures for operation and maintenance, including record-keeping (i.e. completion of burn cycle and maintenance logs and recording of the weight of each waste load charged to the incinerator);

• A reporting requirement to summarize the tracking and record-keeping component;

• Weight scales to record the weight of each load charged to the incinerator; and

• Incineration residual disposal procedures. ENR recommends that incinerators residuals (i.e. bottom and/or fly ash) be disposed of as hazardous waste. Incineration ash can be contaminated with toxic compounds and by-products such as dioxins and furans and should therefore be tested to ensure that it is disposed of in an approved manner. If any incineration residuals are targeted for disposal in the NWT, it must be tested prior to disposal to ensure that is meets the criteria specified in the NWT Environmental Guidelines for Industrial Waste Discharges3.

As a solid waste incinerator is proposed for the treatment of blackwater waste, ENR recommends that the Proponent demonstrate in its Waste Management Plan that a qualified professional has designed its sewage treatment and disposal system. This should include, but not be limited to:

• Incinerator manufacturer's specifications and procedures that detail procedures for this treatment method;

• Details (single/dual chamber, forced/controlled air, manufacturer, model, year, size, fuel, etc.) on the incineration and drying equipment to be used and the specialized training of the operator;

• An estimate of the total amount of sewage to be incinerated; and

• A detailed health and safety program that meets the requirements of the *Safety Act* and *Regulations*.

ENR recommends that if waste is to be disposed of in NWT-based communities or facilities, the Proponent must demonstrate prior to receiving the Land Use Permit and/or Water License authorization:

• That written evidence has been obtained from the community and provided to the Land and Water Board that lists the types and quantities of waste proposed for disposal and states that the community has been consulted and has consented to the use of its waste management infrastructure;

• That the community or facility in question has a Land Use Permit and/or Water License that contains conditions that authorize the disposal of the waste types and quantities in question; and

• The community bylaws that allow for the use of its waste management infrastructure for disposal of waste sourced from industrial operations and camps outside of the community.

2. Fuel Management

The Project Description states that 180,000L of fuel is to be mobilized to site, and that the mobilization and storage of this material will be done under the supervision of the Designated Representative (Page 15, Section 11, Fuels). Page 15/16, Section 12, Containment Fuel Spill Contingency Plans also states that:
"The successful contractor for the activities at Johnson Point will be required to submit the following material prior to commencing any on-site activities:

• *Spill Contingency Plans for operation of equipment on site and for fuel transfers*

• *Secondary containment of all fuel tanks*

• *Spill kits required at all fuel transfer locations."*

However, these plans do not include a requirement for a site-specific spill contingency plan.
Page 16, Section 13, Methods of Fuel Transfer states that:

Fuel transfer and storage for the proposed activities at Johnson Point will be conducted by the successful contractor in accordance to the following regulations, under the supervision of the Designated Representative:

• *National Fire Code of Canada (1995)*

• *Transportation of Dangerous Goods Act (1992)*

• *Transportation of Dangerous Goods Regulations."*

ENR would like to note that the most recent version of the National Fire Code is *National Fire Code of Canada (2005)*. ENR further notes that the *Transportation of Dangerous Goods Act* and *Regulations* are not relevant to onsite duel storage, and are only relevant to terrestrial transportation (i.e. trucking) of dangerous goods. Hence, these regulations are not appropriately referenced for consideration and use in this operation.

2.1 Fuel Management Recommendations

ENR recommends that the Proponent ensure that a site-specific spill contingency plan is prepared and that the 'Designated Representative', environmental monitors, operators and contractors receive copies of this plan in the Field Guide.
The site-specific Spill Contingency Plan should include, but not be limited to:

• An inventory of response and clean-up equipment;

• A site map with location of storage facilities, and the location of emergency equipment and spill response and clean-up equipment; and

• A cover page that clearly identifies: the name, job title and 24-hour telephone number for the person(s) responsible for activating the Spill Contingency Plan; the means by which the Spill Contingency Plan is activated; and an inventory and location of response and clean-up equipment available to implement the Plan.

With respect to the design of fuel storage facilities, ENR recommends that the Proponent ensure that the most recent version of the National Fire Code of Canada is referenced (2005). ENR further recommends that the Proponent consult the *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products* (CCME 2003, including, but not limited to Sections 3, 4, 8 and 9).
In the case that fuel is transferred via barges or other seagoing vessels, ENR recommends that the *Arctic Waters Oil Transfer Guidelines* (Transport Canada, April 1997) be adhered to during loading and offloading.

Specific Concerns / Recommendations
Species at Risk
The *Species at Risk Act (SARA)* states that adverse effects on listed species must be identified and assessed, and regardless of significance, mitigated and monitored (Section 79). It is ENR's view that the treatment of those species listed under the Act be consistent with the treatment of species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
The following COSEWIC listed species have the potential to occur in the project area:

• Polar bear (Special Concern)
• Peary caribou (Endangered)
• Peregrine falcon (Special Concern)

• Grizzly bear (Special Concern)
To sufficiently minimize potential impacts to Peary caribou, the Proponent should adhere to the following:

• Minimum flight altitudes of no less than 300m should be maintained at all times other than take-off and landing. Aircraft over-flights can disturb wildlife,

thereby increasing stress to the animals and potentially extending to effects on overall health and condition. Lactating cows face extreme demands on their nutritional reserves and are therefore particularly vulnerable to disturbance during post-calving. Further, calves and cows may get separated if an intense disturbance such as low-level helicopter over-flight causes the animals to run.

• If caribou approach or are encountered within 500m of project activities, the Proponent should cease operations until caribou are no longer within that range.

• Caribou should not be approached or harassed by people on foot or in vehicles.

General Concerns / Recommendations

ENR acknowledges and supports the mitigative measures set out by the Proponent, but includes the following additional comments to ensure the protection of both wildlife and researchers in the project area:

• Improper food and waste storage, handling and disposal can lead to the attraction and subsequent habituation of bears and other carnivores. It is important that attractants be minimized and that proper food and waste handling techniques be used.

o Burning garbage in pits or barrels and storing garbage for fly-out are the most common causes of wildlife conflicts. Wastes must be completely burned or stored in sealed, odour-proof containers. Storing refuse in a manner likely to attract wildlife is a violation of the *Wildlife Act.*

• Harassing wildlife can lead to greater expenditures of energy on the part of the animal and a loss of fitness. This is especially important for mammals in the winter and when female animals are still feeding their young through lactation. This is also critically important for raptors during the nesting season. ENR considers the chasing or stalking of wildlife for photography or during Eco-Tourism to be harassment. No wildlife should be disturbed, chased or harassed by human beings on foot, in a motorized vehicle or by aircraft.

• Although the concept of feeding small mammals and birds seems trivial, it is in fact a large problem. The increase in local food supply will increase the likelihood of wildlife immigrating to the area, which may include predators and scavengers. This may lead to nuisance wildlife that may have to be destroyed. The grouping together of large concentrations of animals also increases the potential for the spread of diseases. No wildlife should be purposefully encouraged to habituate to human presence (i.e. do not feed wildlife).

• All field personnel who spend more than three weeks in the field a year should complete a bear-safety training course. This is both a worker safety and wildlife issue. ENR feels that if all field workers have bear safety training and learn how to react to bears, the cases of bear attacks and the number of bears

destroyed as nuisance wildlife will correspondingly decrease. This training is also important because it will inform employees and owners on proper bear proofing methods for camps.

Requests of the Proponent

• ENR requests that the Proponent record and forward all bear sightings to the local Wildlife Officer at the earliest opportunity. This will give ENR a better understanding of the location and frequency at which bears investigate camps and other developments. It will also increase ENR's ability to relocate bears that frequent developments before they become habituated and must be destroyed as nuisance wildlife.

• ENR requests that the Proponent contact the local Renewable Resource Officer as soon as possible is there are any problems with bears.

Ian Ellsworth: Inuvik 777-7230 / 777-1185 (cell) / 777-7236 (fax)
Lizz Gordon: Inuvik 777-7201
Owen Allen: Inuvik 777-7247
Paul Voudrach: Tuktoyaktuk 977-2350 / 977-2335 (fax)
Ian McLeod: Aklavik 978-2248 / 978-2756 (fax)

• To aid in ENR's tracking of impacts to wildlife and to monitor the responses of species at risk to development activities, we request that the Proponent provide ENR's Inuvik Regional Biologist with records of any wildlife sightings made during the program. This information should include, if possible, information on location (GPS, if possible) and the number and reaction of the wildlife to overflights or other project activity (if applicable). This information would provide distribution information and could be used to help plan future mitigation.

GNWT/Health: No Comment

GNWT/Prince of Wales Northern Heritage Centre (PWNHC): No comment

Fisheries and Oceans (DFO):

Based on the information provided and a site visit conducted on July 31, 2007, we have concluded that the project is not likely to cause significant adverse effects on fish and fish habitat. DFO provides the following comments for consideration to assist the EISC in screening the proposed works:

Remedial activities have the potential to impact fish. Of most concern are activities that have the potential to contribute sediment to water courses. Some of these include development of borrow sources, construction of barge landings, road upgrades, airstrip repairs, and drainage repairs. Also of concern is the long term stability of any infrastructure such as the airstrip. As such, DFO recommends the following measures be incorporated into the project to ensure that any potentially adverse effects on fish and fish habitat will be mitigated:

1. The long term stability of the airstrip, including cross drainages and culverts, should be ensured.

2. All road culverts should be removed and drainages stabilized upon completion of remedial activities.

3. To avoid the Arctic char migration period in the unnamed river, in water works should not occur between September 15 and October 30 of any year.

4. Machinery should be operated in a manner that minimizes disturbance to the bed and banks of any watercourse.
    a. To prevent additional disturbance, all vehicular traffic should be restricted to the road unless necessary for remedial works.
    b. Machinery should be clean and free of fluid leaks.
    c. Wash, refuel and service machinery and store fuel and other materials for the machinery away from the water to prevent deleterious substances from entering the water.
    d. An emergency spill kit should be on site in case of fluid leaks or spills from machinery.

5. Waste materials removed from the work site should be located above the ordinary high water mark and stabilized to prevent them from entering any watercourse. Spoil piles could be contained with silt fence, flattened, covered with biodegradable mats or tarps, and/or planted with preferably native grass or shrubs.

6. Effective sediment and erosion control measures should be installed before starting work to prevent the entry of sediment into the watercourse. Particular attention should be paid to the road ditches and drainages. These measures should be maintained until complete re-vegetation of disturbed areas is achieved or until such areas

have been permanently stabilized by other effective sediment and erosion control measures, in the event that re-vegetation is not possible.

7. Disturbed areas should be vegetated by planting and seeding preferably native grasses and cover such areas with mulch to prevent soil erosion and to help seeds germinate. If there is insufficient time in the growing season remaining for the seeds to germinate, the site should be stabilized (e.g., cover exposed areas with erosion control blankets to keep the soil in place and prevent erosion) and then vegetated the following spring. If re-vegetation is not possible due to climatic extremes and/or lack of appropriate seed or stock, the site should be stabilized using effective sediment and erosion control measures. Care should be exercised to ensure these measures do not cause thawing or frost heave.

8. Effective sediment and erosion control measures should be maintained until complete re-vegetation of disturbed areas is achieved or until such areas have been permanently stabilized by other effective sediment and erosion control measures, in the event that re-vegetation is not possible.

Please note that this letter does not constitute authorization of the proposed work pursuant the *Fisheries Act*. It is the proponent's responsibility to obtain any approvals that may be required under any other piece of legislation.

Environment Canada (EC):

The following comments are provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*. Environment Canada has the following general comments relative to this file:

1. Meeting the requirements of the *Fisheries Act* is mandatory, irrespective of any other regulatory or permitting system. Section 36(3) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The legal definition of deleterious substance provided in subsection 34(1) of the *Fisheries Act*, in conjunction with court rulings, provides a very broad interpretation of deleterious and includes any substance with a potentially harmful chemical, physical or biological effect on fish or fish habitat.

With respect to the transport, handling and storage of fuels and hazardous materials, Environment Canada has the following recommendations.

2. All sumps, pits, spill basins and fuel caches shall be located above the high water mark of any waterbody and in such a manner as to prevent the contents from entering any waterbody frequented by fish. Therefore, please note that maintaining a buffer of 30 m may not always be an adequate preventative measure.

3. Environment Canada recommends the use of secondary containment with an impervious liner, such as self-supporting insta-berms, for storage of all barreled fuel rather than relying on natural depressions to contain spills.

4. The proponent shall ensure that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.

5. Please note that fuels or hazardous materials cached for this study must be removed at the end of the project.

6. The proponent shall have a Spill Contingency Plan in place prior to establishing any fuel caches.

7. Please note the following regarding a Spill Response Plan that should already be in place for the this project:

• Please note that there should be a site specific Spill Response Plan that provides a clear path of response in the event of a spill and that indicates how the proponent will meet the requirements of prevention, preparedness, response and recovery.

• The plan should provide a map of the campsite, indicating the location of fuel storage areas and spill kits.

• The Plan should provide contact information for individuals on site who should be notified if a spill occurs, as well as contact information for relevant government agencies that should be notified.

• The appropriate contact information for Environment Canada is included below:

o The 24 hour Emergency Pager, monitored by Environment Canada Emergencies personnel; Tel: 867-766-3737.

8. **All spills** shall be documented and reported to the 24 hour Spill Line at (867) 920-8130. The Plan should provide a copy of the NWT/NU Spill Reporting Form and contact number for the Spill Line (867-920-8130).

9. Drip pans, or other similar preventative measures, shall be used when refueling equipment on site.
Drip pans should also be used when equipment is left idling for any length of time in a stationary position.

10. The Spill Contingency Plan should provide direction regarding response actions for spills on various types of terrain (ex. spills on land, water, snow/ice, muskeg, etc…).

11. The Spill Contingency Plan should provide an inventory of spill response resources, and clearly indicate where these resources are located.

12. Except for immediate use, the permittee shall not erect camps or store materials on the surface ice of any water body.

13. With respect to the treatment of petroleum hydrocarbon contaminated soils at this site, please ensure that the construction, operation and monitoring of any soil treatment facility constructed onsite follow recommended guidelines for petroleum hydrocarbon contaminated soil treatment in the north. Please contact this office if you would like additional information in this area.

With respect to waste management, Environment Canada recommends that the following conditions be applied through all stages of the project:

14. All sumps shall be backfilled upon completion of the project and recontoured to match the surrounding landscape.

15. Environment Canada recommends that equipment and material brought to site for this project should be packed out on project completion.

16. For disposal of combustible material that cannot be shipped out, Environment Canada recommends the use of an approved incinerator. See previous comments provided on June 8, 2006 for a LUP Application.

17. All non-combustible solid wastes (e.g., potable water bottles) shall be disposed of at an appropriate facility, e.g., Yellowknife, NT. The proponent is encouraged to make use of recycling facilities for all recyclable materials.

18. With respect to greywater discharge, EC has the following comments:

1. Given that this discharge is overland and is not directed towards fish bearing waters, and also given that the greywater will be treated with UV, EC doesn't have significant concerns for this discharge to the environment.

2. We don't recommend chlorination treatment for a couple of reasons. Specifically, chlorination will inhibit natural breakdown processes and it also forms chloramines. For these reasons, we discourage chlorine treatment of the greywater.

19. With respect to sewage burning, please note the following:

1. The incineration of sewage requires specialized technology capable of burning this type of waste. Please provide details (single/dual chamber, forced/controlled air, manufacturer, model, year, size, fuel, etc.) on the incineration and drying equipment to be used for burning sewage and the specialized training of the operator. In addition please provide an estimate of the total amount sewage to be incinerated.

2. The air emissions resulting from the incineration of sewage must be reported to the National Pollutant Release Inventory (NPRI). For additional information see ***2007 Guide for Reporting to the National Pollutant Release Inventory, Canadian Environmental Protection Act, 1999*** (www.ec.gc.ca/npri).

20. With respect to existing landfills at Johnson Point, the proponent states that the landfill contents are primarily non-hazardous in nature but that no future monitoring of these existing landfills will be carried out. Since there is some uncertainty regarding the definitive contents of these landfills, EC recommends that some leachate monitoring be carried out at these landfills to monitor any changes that may occur.

21. In a June 8, 2006 letter to the North Mackenzie District Office, EC made a number of recommendations/requests relative to the incineration of waste materials at Johnson Point. EC would like to confirm that a number of our recommendations were followed up on during the 2006/2007 field seasons. Therefore, EC would like to request a copy of INAC's waste management plan for Johnson Point.

The Canadian Wildlife Service (CWS) of Environment Canada has reviewed the above-mentioned submission and makes the following comments and recommendations pursuant to the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations)*, and the *Species at Risk Act* (SARA).

22. Section 6 (a) of the *Migratory Birds Regulations* states that no one shall disturb or destroy the nests or eggs of migratory birds. In order to minimize the risk of accidentally disturbing or destroying nests or eggs of migratory birds during demolition or remediation activities, Environment Canada recommends the following mitigation measures for migratory birds:

a. Structures with known nesting areas should be taken down either before or after the nesting season.

b. If other demolition or remediation work occurs during the nesting season, these areas should be inspected for active nests before any demolition or remediation work starts.

c. If active nests (i.e., nests containing eggs or young) are discovered, the proponent should delay any work in the area until nesting is complete (i.e., the young have left the nest).

23. Section 5.1 of the *Migratory Birds Convention Act* prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

24. Environment Canada recommends that the proponent follow the Inuvialuit Wildlife Management Advisory Council / Inuvialuit Game Council flight altitude guidelines, which includes recommended minimum altitudes of 650 m when flying over areas likely to have birds and 1100 m over areas where birds are known to concentrate. Environment Canada also recommends that aircraft maintain a minimum horizontal distance of 1500 m from any observed concentrations (flocks / groups) of birds.

25. Environment Canada recommends that camp waste be made inaccessible to wildlife at all times. Camp waste can

attract predators of migratory birds (e.g., foxes and ravens) to an area if not disposed of properly.

26. All mitigation measures identified by the proponent, and the additional measures suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponents' representatives (including contractors) conducting operations in the field. Environment Canada recommends that all field operations staff be made aware of the proponents' commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.

27. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations (*the *Regulations)*. The proponent must ensure they remain in compliance with the *Act* and *Regulations* during all phases and in all undertakings related to the project.

28. The following comments are pursuant to the Species at Risk Act (SARA), which came into full effect on June 1, 2004. Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, Environment Canada suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner.

Terrestrial Species at Risk potentially within project area [1]	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility [2]
Peary Caribou	Endangered	Pending	GNWT
Red Knot	Endangered	Pending	EC
Polar Bear	Special Concern	Pending	GNWT

[1] The Department of Fisheries and Oceans has responsibility for aquatic species.
[2] Environment Canada has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the *Migratory Birds Convention Act* (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Thus, for species within their responsibility, the Territorial Government is best suited to provide detailed advice and information on potential adverse effects, mitigation measures, and monitoring.
Impacts could be disturbance and attraction to operations.
Environment Canada recommends:

• Species at Risk that could be encountered or affected by the project should be identified and any potential adverse effects of the project to the species, its habitat, and/or its residence noted. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.

• If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.

• Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.

• For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.

• Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.

29. Environment Canada notes that the Red Knot (a shorebird) was designated as at risk by COSEWIC in April 2007. Red Knots breed on Banks Island. Although the major threats to Red Knot relate to habitat degradation in the wintering areas and decreases in food resources during spring migration, the proponent should ensure that extra precautions are taken to avoid any disturbance to the Red Knot or its habitat during the breeding season.

Red Knots nest on barren habitats (often less than 5% vegetation) such as windswept ridges, slopes or plateaus. Nest sites are usually in dry, south-facing locations, and may be located near wetlands or lake edges, where the young are led after hatching. Nests are simple scrapes on the ground in small patches of vegetation. Nesting will occur in June with hatching in early July. If an active Red Knot nest is encountered during project activities, or observations of Red Knot in the area suggest that a nest could be nearby, the proponent should avoid all activities in the area until nesting is complete (i.e., likely only resume activities in the area until after mid-July).

Observations of Red Knots should be reported to the Canadian Wildlife Service of Environment Canada through the

NWT/NU Bird Checklist program.
NWT/NU Bird Checklist Survey
Canadian Wildlife Service, Environment Canada
301-5204 50th Ave
Yellowknife NT, X1A 1E2
Phone: 867.669.4773

Email: NWTChecklist@ec.gc.ca
If there are any changes in the proposed project, EC should be notified, as further review may be necessary.

Parks Canada (PC): No comment

10. Significance

After taking into account the above mitigation measures, are any of the adverse environmental effects significant?

__Yes X No if yes, identify which one(s) and proceed to 11; if no, proceed to #12

11. Likelihood of Occurrence

Of the identified adverse significant environmental effects in #10 are any likely to occur?

n/a Yes n/a No If yes, which one(s)?

12. Consultation on Screening Report

Public consultation on screening report deemed necessary? _ _ Yes _X_ No
Deadline for comments on screening report N/A

Public Comments Received on Screening Report? _ _ Yes _X_ No

13. Monitoring Program by Proponent

Regular land use and operation inspections should suffice to identify any problems needing attention. Water Licence may require a monitoring program of the remediated areas.

INAC - CARD	*FINAL INAC Screening*
Johnson Point Site Remediation Program	

13.a) CEAA Determination and Authorization - DIAND North Mackenzie District

Determination:

X Section 20 (1)(a) - Project may proceed as it is not likely to cause significant adverse environmental effects.

___ Section 20 (1)(b) - Project may not proceed as it is likely to cause significant adverse environmental effects that cannot be justified.

___ Section 20 (1)(c)(i) - Project must be referred to the Minister of Environment as it is uncertain whether the project is likely to cause significant adverse environmental effects.

___ Section 20 (1)(c)(ii) - Project must be referred to the Minister of Environment as it is likely to cause significant adverse environmental effects.

Section 20 (1)(c)(iii) - Project must be referred to the Minister of Environment as public concerns warrant the reference.

Authorization:

Approved By: Conrad Baetz
District Manager, INAC

Date May 16/08

Section 9 Agency Contacts

Mr Conrad Baetz
District Manager
North Mackenzie District
Indian and Northern Affairs Canada
P.O. Box 2100
Inuvik, Northwest Territories X0E 0T0
Facsimile (867) 777-2090
E-mail : baetzc@inac.gc.ca

13.a) CEAA Determination and Authorization - DIAND North Mackenzie District

Determination:

_X__ Section 20 (1)(a) - Project may proceed as it is not likely to cause significant adverse environmental effects.

___ Section 20 (1)(b) - Project may not proceed as it is likely to cause significant adverse environmental effects that cannot be justified.

___ Section 20 (1)(c)(i) - Project must be referred to the Minister of Environment as it is uncertain whether the project is likely to cause significant adverse environmental effects.

___ Section 20 (1)(c)(ii) - Project must be referred to the Minister of Environment as it is likely to cause significant adverse environmental effects.

___ Section 20 (1)(c)(iii) - Project must be referred to the Minister of Environment as public concerns warrant the reference.

Authorization:

Approved by: Rudy Cockney
Interim Chair, NWT Water Board

May 27/2008
Date

Agency Contacts

Mr. Rudy Cockney, Interim Chairman
Northwest Territories Water Board
5114 49th Street
P.O. Box 1326
Yellowknife, Northwest Territories X1A 2N9
Facsimile (867) 765 - 0114

Appendices

APPENDIX A: Subject Descriptors

Choose from this list and insert as a "Subject Descriptor"

- ☐ Agriculture
- ☐ Buildings
- ☐ communications
- ☐ Defense
- ☐ energy
- ☐ forestry
- ☒ industry
- ☐ inland waters
- ☐ mining
- ☐ oceans
- ☐ oil and gas
- ☐ parks
- ☐ transportation

APPENDIX B: Geographic Place Name
Refer to project description

APPENDIX C: Screening Checklist and Cumulative Effects Checklist

APPENDIX D: CEAA EA Coordination

APPENDIX E : DIAND Recommended Land Use Permit Conditions

APPENDIX F: NWT Water Board - Water License Conditions

APPENDIX G: Proponents Project Location Map

APPENDIX C

Table A. Identification of Project Components and Environmental Effects

Identify all components of the project under screening and their potential adverse environmental effects

Project Components

(✓ check all the items appropriate to this project)

- ☒ access road (???)
  - ☐ construction (potentially)
  - ☒ abandonment/removal
  - ☐ modification e.g., widening,
  - ☐ straightening
- ☒ automobile, aircraft or vessel movement
- ☐ blasting (sumps)
- ☐ building
- ☒ burning of garbage
- ☐ burying (sumps)
- ☐ channeling
- ☒ cut and fill
- ☐ cutting of trees or removal of vegetation
- ☐ dams and impoundments
  - ☐ construction
  - ☐ abandonment/removal
  - ☐ modification
- ☐ ditch construction
- ☐ drainage alteration
- ☐ drilling other than geoscientific
- ☐ ecological surveys
- ☐ excavation
- ☐ explosive storage
- ☒ fuel storage
- ☒ garbage
  - ☒ disposal of hazardous waste
  - ☒ disposal of sewage
  - ☒ waste generation
- ☐ geoscientific sampling
  - ☐ trenching
  - ☐ diamond drill
  - ☐ borehole core sampling
  - ☐ bulk soil sampling
- ☐ gravel
- ☐ hydrological testing
- ☒ site restoration
  - ☐ fertilization
  - ☐ grubbing
  - ☐ planting/seeding
  - ☐ reforestation
  - ☐ scarify
  - ☐ spraying
  - ☐ recontouring
- ☐ slash and burn
- ☒ soil testing
- ☒ topsoil, overburden or soil
  - ☐ fill
  - ☐ disposal
  - ☒ removal
  - ☐ storage (replacement over sumps)
- ☐ stream crossing/bridging (ice roads)
- ☐ tunneling/underground
- ☒ other, explain: contaminated soil will be Farmed or removed.
- ☐ accidents or malfunctions Describe: See section 5 of screening.
- ☐ effects of environment on project. Describe: See section 8.b) of screening.

Project Effects
(✓ check all the items appropriate to this project)

Biophysical Environment

1. ☐ deposit into surface water
2. ☒ deposit into ground water
3 ☐ change in surface water flow
4. ☐ change in ground water flow
5. ☐ change in water temperature
6. ☐ change in drainage pattern
7. ☒ change in air quality
8. ☐ change in air flow
9. ☐ micro-climate change
10. ☐ ice fog
11. ☒ change in ambient noise levels
12. ☐ change in slope stability
13. ☐ change in soil structure
14. ☐ alteration of permafrost regime
15. ☐ destabilization/erosion
16. ☐ soil compaction
17. ☐ loss of access to non-renewable resource
18. ☐ depletion of non-renewable resource
19. ☐ removal of rare/endangered plant species
20. ☐ introduction of species
21. ☐ toxin/heavy metal accumulation
22. ☐ removal of rare/endangered wildlife species
23. ☐ change in wildlife health
24. ☒ impact to large mammals
25. ☒ impact to small mammals
26. ☒ impact to fish
27. ☒ impact to birds
28. ☐ impact to other wildlife
29. ☐ impact in a calving, nesting or spawning area
30. ☐ removal of wildlife buffer zone
31. ☐ change in wildlife habitat/ecosystem
32. ☐ other:

Directly-related Socio-economic and Cultural Environment

33. ☐ impact to trappers
34. ☐ impact to hunting
35. ☐ impact to outfitters
36. ☐ recreational or back country use
37. ☐ impact to fishing
38. ☐ impact to Inuvialuit traditional use
39. ☒ impact to community
40. ☐ impact to industry
41. ☐ impact to community health
42. ☐ change in work force economics
43. ☐ change in housing or infrastructure
44. ☐ change in regional transportation
45. ☐ other, explain _____
46. ☐ impact to traditional use area
47. ☐ impact to historical site or cultural landmark
48. ☐ impact to local aesthetics
49. ☐ impact to archaeological or historical site
50. ☐ other, explain
51. ☐ impact to natural geologic formations in area of research.

Table B. Identification of Other Resource Uses and Their Environmental Effects

Identify relevant past, current and future (pending applications) physical works and activities and their potential adverse environmental effects.

Other Resource Uses

(✓ check all the items appropriate to this project)

- ☐ agriculture
- ☐ forestry
  - ☐ commercial
  - ☐ domestic
- ☐ fishing
- ☒ hunting/subsistence
- ☐ other:
- ☐ urbanization
- ☐ commercial / residential (cottages)
  - ☐ built structures
  - ☐ infrastructure
- ☐ mining
  - ☐ exploration
  - ☐ open pits
  - ☐ underground
- ☐ quarries
- ☐ transportation/communications
  - ☐ roads / trails
  - ☐ channels / canal
  - ☐ telephone lines, satellite dishes,
  - ☐ cables
  - ☐ beacons
- ☐ solid waste disposal
- ☐ energy project
  - ☐ hydro
  - ☐ pipeline
  - ☐ transmission line
  - ☐ oil and gas exploration
- ☐ other water licenses, permits, leases
- ☒ land claims
  - ☒ selected
  - ☐ withdrawn
  - ☐ special management
    - ☐ heritage sites
    - ☐ cultural sites
- ☐ other private lands held under tenure
  - ☐ recreational
  - ☐ trapping
  - ☐ mineral processing
  - ☐ airport
  - ☐ recreation
  - ☐ other:

Effects from other Resource Uses
(✓ check all the items appropriate to the scope of this project)

Biophysical Environment

1. ☐ deposit into surface water
2. ☒ deposit into ground water
3. ☐ change in surface water flow
4. ☐ change in ground water flow
5. ☐ change in water temperature
6. ☐ change in drainage pattern
7. ☒ change in air quality
8. ☐ change in air flow
9. ☐ micro-climate change
10. ☐ ice fog
11. ☒ change in ambient noise levels
12. ☐ change in slope stability
13. ☐ change in soil structure
14. ☐ alteration of permafrost regime
15. ☒ destabilization/erosion
16. ☐ soil compaction
17. ☐ loss of access to non-renewable resource
18. ☐ depletion of non-renewable resource
19. ☐ removal of rare/endangered plant species
20. ☐ introduction of species
21. ☐ toxin/heavy metal accumulation
22. ☐ removal of rare/endangered wildlife species
23. ☐ change in wildlife health
24. ☒ impact to large mammals
25. ☒ impact to small mammals
26. ☒ impact to fish
27. ☐ impact to birds
28. ☐ impact to other wildlife
29. ☐ impact in a calving, nesting or spawning area
30. ☐ removal of wildlife buffer zone
31. ☐ change in wildlife habitat/ecosystem
32. ☐ other, explain_____

Directly-related Socio-economic and Cultural Environment

33. ☐ impact to trappers
34. ☐ impact to hunting
35. ☐ impact to outfitters
36. ☐ recreational or back country use
37. ☐ impact to fishing
38. ☒ impact to community
39. ☐ impact to industry
40. ☐ impact to community health
41. ☐ change in work force or community economics
42. ☐ change in housing or infrastructure
43. ☐ change in regional transportation
44. ☐ other, explain_____
45. ☐ impact to traditional use area
46. ☐ impact to historical site or cultural landmark
47. ☐ impact to local aesthetics
48. ☐ impact to archaeological or historical site
49. ☐ other, explain_____

Table C. Comparison of Effects as Identified in Table A and Table B

Matching Numbers	Description of cumulative adverse environmental effects
7	Air Quality change caused by running of helicopters, generators and other fuel burning machinery during the life of the project will all contribute to emissions to the air environment. These emissions may cause air quality problems in localized areas where the equipment is concentrated. These effects will only be temporary and only in small areas for a limited period of time.
11	Changes in Ambient Noise Levels - this due to the increase in noise levels from heavy equipment and other machinery over the project areas in a wilderness environment. Most wildlife in the affected areas will avoid equipment due to the noise levels.
14&15	Destabilization/Erosion and Alteration of permafrost regime may occur if proper construction techniques are not adhered to
24 26 & 27	Mammals and birds may be temporarily displaced for short time periods due to the activity. Due to the short period of time required for this project there will be very minimal disturbance to wildlife.

APPENDIX D: CEAA EA Coordination

CEAA Section 5 Notification

Pursuant to section 5 of the CEAA Federal Coordination Regulations, potential responsible authorities (RAs) and federal authorities (FAs) were requested on October 2nd, 2006 to review the proposed project and, pursuant to subsection 6(1) of the CEAA Federal Coordination Regulations, inform the lead RA by April 09th, 2008 whether they are a responsible authority or could provide specialist advice. The responses are provided in the following table:

Role of Federal Departments/Agencies

Department/Agency (District)	Responsible Authority	Specialist Department	No Involvement
Indian and Northern Affairs (Inuvik)	**Lead RA**		
Environment Canada (CWS)	**X**		
Fisheries and Oceans (Inuvik)		X	
Parks Canada		X	
NWT Water Board	**X**		
Natural Resources Canada (Ottawa)		X	
NEB		X	

Federal Approvals

INAC: *Territorial Lands Act* Land Use Permit
Type B Water Licence *Northwest Territories Waters Act, Northwest Territories Waters Regulations*

Section 8 Requirements of the CEAA Federal Coordination Regulations

With respect to section 8 of the FCR, the RA prepared a determination of the scope of the project, the factors to be considered, and the scope of those factors as follows:

Scope of the Project

1. Undertaking in relation to the physical work or physical activity triggering the CEAA.

   The principal project will be the proposed disposal waste associated with wash water from tank cleaning operations and camp grey/black water.
   .

2 - Other associated physical works or physical activities to be undertaken to carry out the project. For this project to be completed the following activities will have to be undertaken to complete the project.

1. Site Infrastructure Upgrades
2. Treatment of Hydrocarbon-Impacted Soil and Water
3. Disposal of Hazardous & Non-hazardous Wastes to Off-Site Licensed Disposal Facilities
4. Placement of Additional Capping Materials on Existing Landfills

Once the supporting camp has been set-up and the infrastructure upgrades have been completed the main remediation tasks will commence. Due to logistical constraints and the short field season on Banks Island, activities during 2008 will likely be limited to the following tasks:
• barge mobilization of camp, equipment, and supplies to Site,
• infrastructure repairs to the airstrip and roads,
• site surveys,
• further soil and water sampling,
• some soil excavation and groundwater treatment, and
• consolidation of waste materials and potentially off-site transport of some non- hazardous materials on the mobilization back-haul

3. Other undertakings in relation to the physical works and activities identified in items (1) and (2) above.

Depending on the methods used to remediate the site further activities may take place in the following several years.

Factors to be Assessed

The factors considered within the scope of an environmental assessment are those set out in subsection 16(1) of the CEAA.

Scope of the Factors to be assessed

The following spatial and temporal boundaries for the project are suggested:

1- Spatial Boundaries

Local -	Impacts are limited to the campsite, and contaminated locations.
Subregional	Impacts may extend 1 km beyond the limits of the campsite and contaminated locations.
Regional:	Impacts may extend beyond 25 km from the campsite contaminated locations

2 – Temporal Boundaries

Immediate:	Impact duration is limited to less than two days.
Short Term:	Impact duration is longer than two days but less than a month.
Medium Term:	Impact duration is one month or longer but less than one year.
Long Term:	Impact duration extends one year or longer.

APPENDIX E

CONDITIONS ANNEXED TO AND FORMING PART OF LAND USE PERMIT NUMBER N2008X0011

31 (1) (a) - LOCATION AND AREA

1.	The Permittee shall not conduct this land use operation on any lands not designated in the accepted application, unless otherwise authorized, in writing, by the Engineer.	**PLANS**
2.	The Permittee shall not conduct any part of the land use operation within three hundred (300) metres of any privately owned land or structure, unless otherwise authorized, in writing, by the Engineer.	**PRIVATE PROPERTY**
3.	The Permittee shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material.	**REMOVE WASTE MATERIAL**
4.	The Permittee shall use existing campsites.	**CAMP LOCATION**
5.	The Permittee shall at all times conform to all applicable Federal, Territorial or local regulations, ordinances or bylaws.	**CONFORM TO APPLICABLE LAWS**

31 (1) (b) - TIME

6.	The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the Inuvik office of the Department of Indian Affairs and Northern Development, telephone number (867) 777-3361, at least 48 hours prior to the commencement of this land use operation.	**CONTACT INSPECTOR**
7.	The Permittee shall advise a Land Use Inspector at least ten (10) days prior to the completion of the land use operation of (a) his plan for removal or storage of equipment and materials, and (b) when final clean-up and restoration of the lands used will be completed.	**REPORTS BEFORE REMOVAL**
8.	The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this Permit.	**CLEAN-UP**
9.	The Engineer reserves the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe.	**CLOSURE**

31 (1) (c) - EQUIPMENT

10.	The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized, in writing, by a Land Use Inspector.	**ONLY APPROVED EQUIPMENT**

11.	The Permittee shall burn all combustible garbage and debris in a container acceptable to a Land Use Inspector.	**INCINERATION**
12.	The Permittee shall ensure a garbage container is on site.	**GARBAGE CONTAINER**

31 (1) (d) - METHODS AND TECHNIQUE

31 (1) (e) - TYPE, LOCATION, CAPACITY AND OPERATION OF FACILITIES

13.	The Permittee shall not locate any sump within thirty (30) metres of the normal high water mark of any stream.	**SUMPS FROM WATER**
14.	The Permittee shall backfill and restore all sumps prior to the expiry date of this Permit.	**BACKFILL SUMPS**
15.	The Permittee shall ensure that the land use area is kept clean and tidy at all times.	**CLEAN WORK AREA**

31 (1) (f) - CONTROL OR PREVENTION OF FLOODING, EROSION AND SUBSIDENCE OF LAND

16.	The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation.	**NATURAL DRAINAGE**

31 (1) (g) - USE, STORAGE, HANDLING AND DISPOSAL OF CHEMICAL OR TOXIC MATERIAL

17.	The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the Engineer.	**APPROVAL OF CHEMICALS**
18.	The Permittee shall burn all garbage and debris at least daily.	**GARBAGE DISPOSAL**
19.	The Permittee shall remove all noncombustible garbage and debris from the land use area to a disposal site approved, in writing, by a Land Use Inspector.	**REMOVE GARBAGE**
20.	The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form N.W.T. 1086(10/79). 24 hour spill report line (867) 920-8130.	**REPORT CHEMICAL AND PETROLEUM SPILLS**
21.	The Permittee shall dispose of all sewage in a manner approved by a Land Use Inspector.	**SEWAGE DISPOSAL**

31 (1) (h) - WILDLIFE AND FISHERIES HABITAT

22.	The Permittee shall not unnecessarily damage wildlife habitat in conducting this land use operation.	**HABITAT DAMAGE**

23.	Your operation is in an area where bears may be encountered. Proper food handling and garbage disposal procedures will lessen the likelihood of bears being attracted to your operation. Information about the latest bear detection and deterrent techniques can be obtained from the Department of Resources, Wildlife and Economic Development at (867) 777-7308 or (867) 777-7230.	**BEAR/MAN CONFLICT**
24.	The Permittee shall not in any circumstances deposit or allow the deposit of any deleterious substances (including but not limited to fuels, lubricants, hydraulics, and coolants) of any type into any waters, or in any place under any conditions where the deleterious substances may enter any waters.	**DEPOSITING DELETERIOUS SUBSTANCES**

31 (l) (i) - OBJECTS AND PLACES OF RECREATIONAL, SCENIC AND ECOLOGICAL VALUE

25.	The Permittee shall not feed wildlife.	**NO FEEDING WILDLIFE**
26.	The Permittee shall immediately suspend the Land Use operation on the site and notify the Land Use Inspector of the location of the site and nature of any unearthed materials, structures or artifacts.	**ARCHAEOLOGICAL SITES AND /OR BURIAL GROUND**

31 (1) (j) - SECURITY DEPOSIT

31 (1) (k) - PETROLEUM FUEL STORAGE

27.	The Permittee shall not place any petroleum fuel storage containers within thirty (30) metres of the normal high water mark of any stream where possible.	**FUEL BY STREAM**
28.	The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.	**FUEL CONTAINMENT**
29.	The Permittee shall not use bladders for storing and/or transporting petroleum products.	**BLADDERS PROHIBITED**
30.	The Permittee shall mark all fuel containers with the Permittee's name. This includes forty-five (45) gallon drums.	**MARK CONTAINERS**
31.	The Permittee shall at all times have on site sufficient spill clean-up equipment and material in readiness to clean-up all hazardous material which may be spilled.	**SPILL CLEAN-UP EQUIPMENT**

31 (1) (l) - DEBRIS AND BRUSH DISPOSAL

31 (1) (m) - MATTERS NOT INCONSISTENT WITH THE REGULATIONS

32.	The Permittee shall display a copy of this Permit in a conspicuous place in each campsite established to carry out this land use operation.	**DISPLAY PERMIT**

33. The Permittee shall keep on hand, at all times during this land use operation, a copy of the Land Use Permit. **COPY OF PERMIT**

34. The Permittee shall provide in writing to the Engineer, at least forty-eight (48) hours prior to commencement of this land use operation, the following information: **IDENTIFY AGENT**

(a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;

(b) alternates;

(c) all the indirect methods for contacting the above person(s).

35. The Permittee shall ensure that a copy of this Permit, operating conditions and definitions is provided to and understood by all contractors and sub-contractors prior to the start-up of this Land Use Operation. **PERMIT CONTRACTORS & SUB-CONTRACTORS**

36. **PART 1** - In this Permit:

"sump" means a man-made pit, trench hollow or cavity in the earth's surface used for the purpose of depositing waste material therein.

APPENDIX F

NWT Water Board Type B Water Licence Conditions
TYPICAL WATER LICENCE CONDITIONS FOR SUCH an UNDERTAKING

PART A: SCOPE AND DEFINITIONS

1. Scope

a) This Licence entitles INAC Contaminants and Remediation Directorate to use Water and dispose of Waste for industrial undertakings on Banks Island for the Johnson Point Project located at Latitude 118.5N, and Longitude 72.75W, Northwest Territories.

b) This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the Northwest Territories Waters Act, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations; and

c) Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

In this Licence: **N7-1-1824**

"Act" means the Northwest Territories Waters Act;

"Analyst" means an Analyst designated by the Minister under Section 35(1) of the Northwest Territories Waters Act;

"Average Concentration For Faecal Coliform" means the geometric mean of any four consecutive analytical results submitted to the Board in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program";

"Board" means the Northwest Territories Water Board established under Section 10 of the Northwest Territories Waters Act;

"Greywater" means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

"Inspector" means an Inspector designated by the Minister under Section 35(1) of the Northwest Territories Waters Act;

"Licensee" means the holder of this Licence;

"Maximum Average Concentration" means the running average of any four consecutive analytical results, or if less than four analytical results collected, and submitted to the Inspector in accordance with the sampling and analysis requirements specified in the "Surveillance Network Program";

"Minister" means the Minister of Indian Affairs and Northern Development;

"Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does include an expansion;

"Project Description" refers to the report titled "INAC Contaminated Sites Program, Johnson Point: Waste Fuel Incineration and Environmental Assessment", dated "April 2006" and prepared by CARD;

"Sewage" means all toilet waste and greywater;

"Toilet Wastes" means all human excreta and associated products, but does not include greywater;

"Regulations" means Regulations proclaimed pursuant to Section 33 of the Northwest Territories Waters Act;

"Sump" means an excavation with an impermeable layer for the purpose of catching or storing fluids.

"Waste" means waste as defined by Section 2 of the Northwest Territories Waters Act;

"Waters" means waters as defined by Section 2 of the Northwest Territories Waters Act;

PART B: GENERAL CONDITIONS

1) The Licensee shall file an Annual Report with the Board not later than December 1st of the year reported which shall contain the following information:

   a) the total quantity in cubic metres of fresh Water obtained from all sources;

   b) the total quantities in cubic metres of each and all Waste discharged;

   c) the location and direction of flow of all Waste discharged to the land or Water;

   d) a summary of any modifications carried out on the water supply and Waste disposal facilities, including all associated structures;

   e) a list of spills and unauthorized discharges;

   f) a description of the planned activities for the upcoming field season; and

   g) any other details on water use or Waste disposal requested by the Board within forty-five (45) days before the annual report is due.

2) Meters, devices or other such methods used for measuring the volumes of water used and Waste discharged shall be installed, operated and maintained by the Licensee to the satisfaction of an Inspector.

3) All monitoring data shall be submitted in printed form and electronically in spreadsheet format on a diskette or other electronic forms acceptable to the Board.

4) All reports shall be submitted to the Board in printed format accompanied by an electronic copy in a common word processing format on diskette or other electronic forms acceptable to the Board.

5) The Licencee shall ensure a copy of this Licence is maintained at the site of operation at all times.

PART C: CONDITIONS APPLYING TO WATER USE

1. The daily quantity of Water used for all purposes shall not exceed 100 cubic metres.

2. Where practical, the Licensee shall minimize freshwater use by serially transferring water from one tank to another.

3. The water intake hose used on the water pumps shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish (2.54 mm).

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. All Sewage from the camp shall be directed to the sump or as approved by an Inspector.

2. The Licensee shall dispose of all solid Wastes in a manner acceptable to the Inspector.

3. All waste water derived from sludge consolidation and tank cleaning operations must meet the following effluent parameters prior to disposal to the environment:

Parameter	Proposed Discharge Cirteria
Oil and Grease	5 mg/L and none visible
Benzene	.370 mg/L
Toluene	.002 Mg/L
Ethylbenzene	.09 Mg/L

4. All analyses shall be conducted in accordance with methods prescribed in the current edition of "Standard Methods for the Examination of Water and Wastewater" or by such other methods as may be approved by an Analyst.

5. The Licensee must notify an Inspector at least five (5) days prior to any discharge of waste water from the holding tank.

6. The Licensee may commence the discharge of waste water from the holding tank upon receipt of an Inspector's approval.

PART E: CONDITIONS APPLYING TO MODIFICATIONS

1) The Licensee may, without written approval from the Board, carry out Modifications to the planned undertakings provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:

   a) the Licensee has notified an Inspector in writing of such proposed Modifications at least five (5) days prior to beginning the Modifications;

   b) such Modifications do not place the Licensee in contravention of either this Licence or the Act;

   c) an Inspector has not, during the five (5) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than five (5) days; and

   d) an Inspector has not rejected the proposed Modifications.

2) Modifications for which all of the conditions referred to in Part E, Item 1 have not been met may be carried out only with written approval from an Inspector.

3) The Licensee shall provide to the Board as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modifications.

PART F: CONDITIONS APPLYING TO CONTINGENCY PLANNING

1. The Licencee will maintain a copy of the approved Spill Contingency Plan onsite in a readily available location, to the satisfaction of an Inspector.

2. The Licensee shall ensure that petroleum products, hazardous material and other Wastes associated with the project do not enter any Waters.

3. The Licencee shall ensure that all containment berms are constructed of an impermeable material, to the satisfaction of an Inspector.

4. If, during the period of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:

a) report the incident immediately via the 24 Hour Spill Reporting Line (867) 920-8130; and

b) submit to an Inspector a detailed report on each occurrence not later than thirty (30) days after initially reporting the event.

PART G: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. Upon completion of all activities, the Licensee shall ensure that all equipment and materials are removed from the site. Other final restoration activities as outlined in the Project Description should be implemented to the satisfaction of an Inspector.

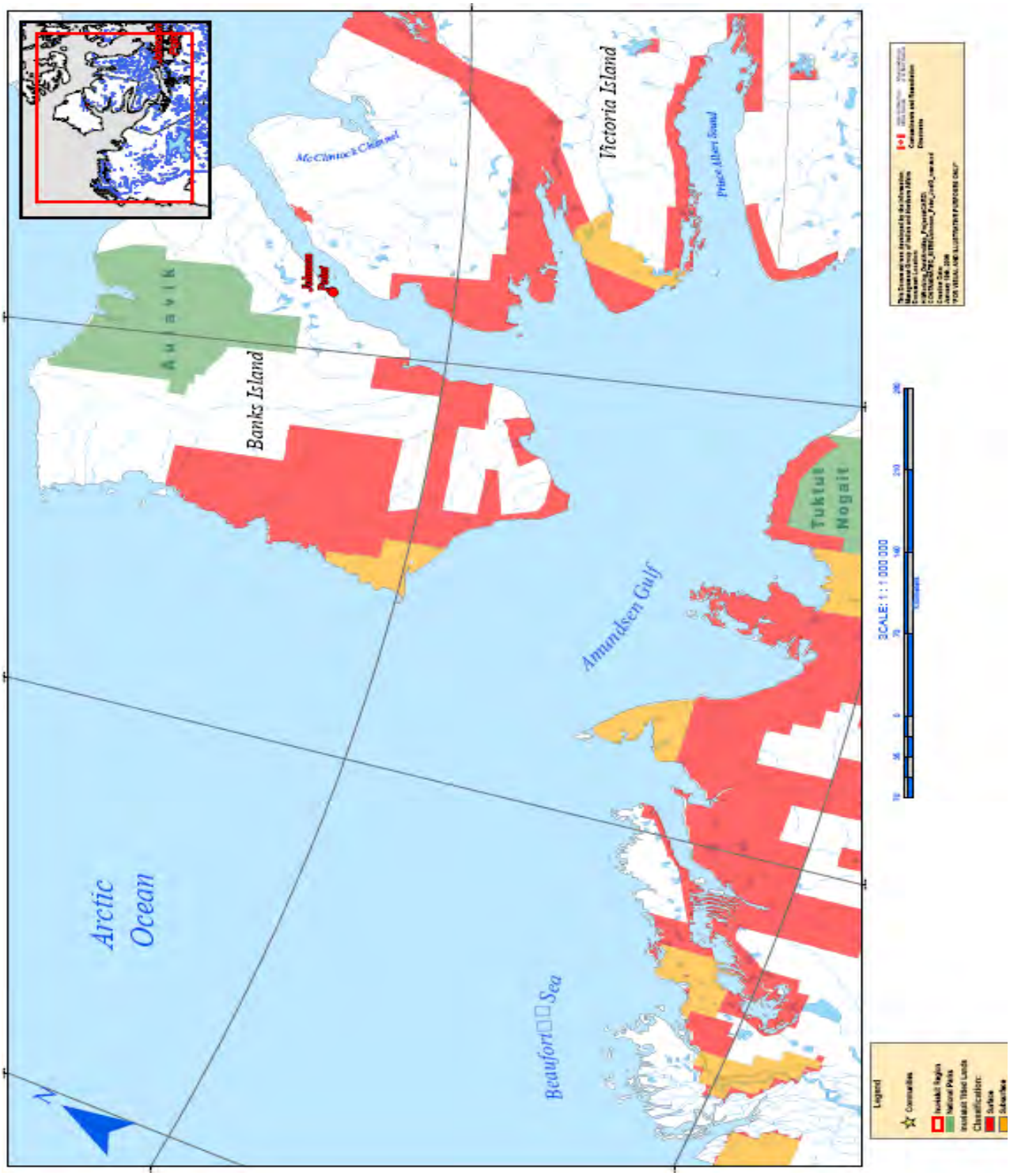
NORTHWEST TERRITORIES WATER BOARD

_____ _____

Witness **Chairman**

APPENDIX G

Error!
MAP



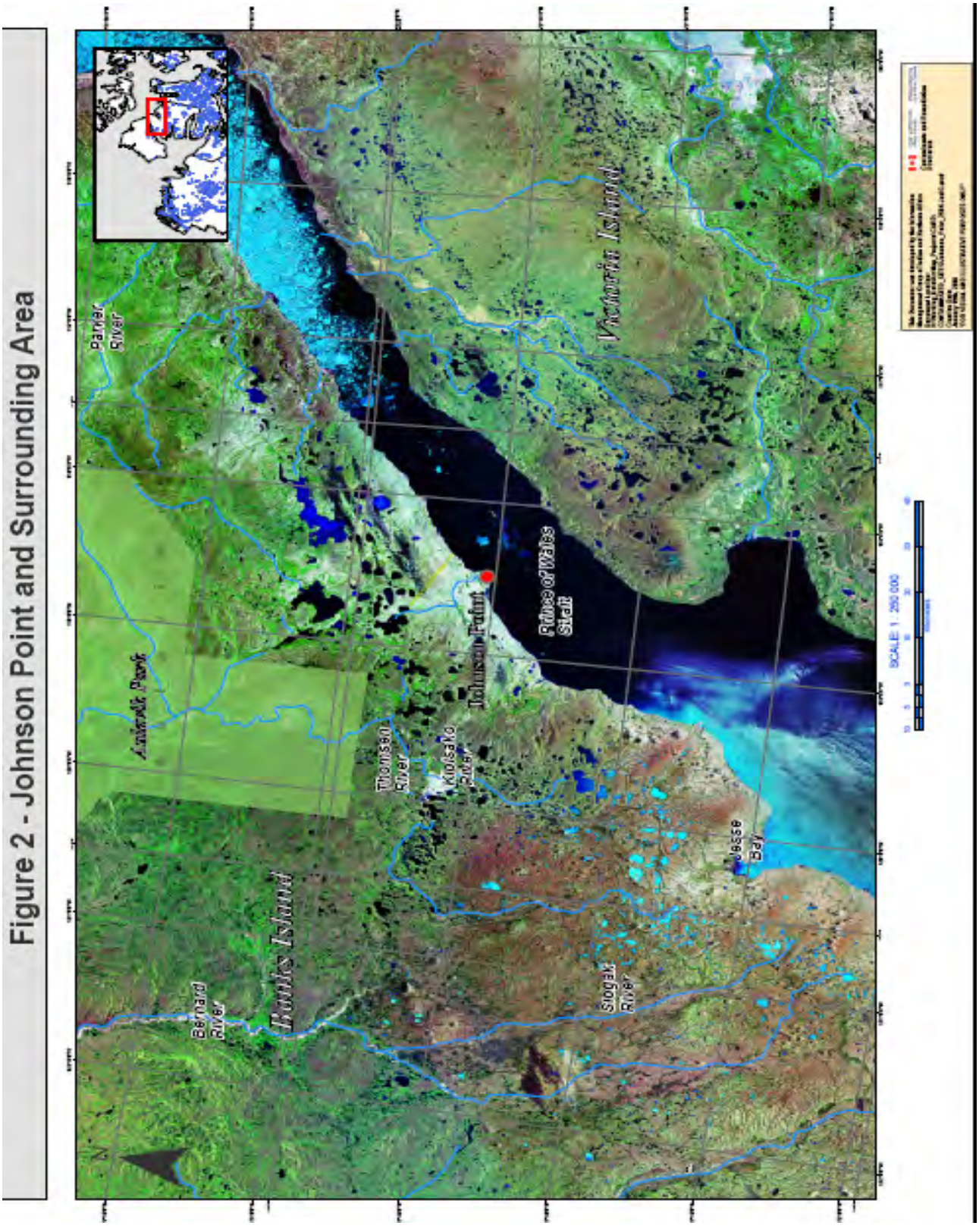


Figure 2 - Johnson Point and Surrounding Area
Parker River
Victoria Island
Prince of Wales Strait
Johnson Point
Thomson River
Kiokalo River
Joseph Bay
Stolak River
Bernard River
Banks Island
SCALE 1 : 250 000