APPENDIX 2

ENNADAI LAKE
REMEDIATION PROJECT

NUNAVUT IMPACT REVIEW BOARD
PART 2 FORM – PROJECT SPECIFIC INFORMATION REQUIREMENTS

SCREENING PART 2 FORM
PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)

1. SUBMISSIONS

The Proponent must submit all information pertaining to the Project as a whole. The information requirements below are designed for the purpose of environmental assessment and are not limited to the scope of a single permit or license application.

IMPORTANT: Please be advised of the following:

1. NIRB does not accept references to an ftp or web sites as a submission.

2. The Proponent must provide NIRB with 1 (one) electronic copy and 1 (one) hardcopy of the required information in English.

3. All maps should be shapefiles, be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, NTS Maps numbers, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations and faxed maps; and,

4. Please complete all required information in each section below. If the required information is not applicable to the project proposal, please indicate this in the response with "n/a". If the request has been provided in a different section or report, please note the section or report where the response can be found.

2. GENERAL PROJECT INFORMATION REQUIREMENTS

Project Coordinates and Maps

1. The preferred method for submitting project coordinates information is through the use of a Geographic Information System (GIS) compatible digital file. Although an ESRI ArcView 3.x shape file (in decimal degrees) is the preferred interchange format, the NIRB has the capacity to receive over 100 GIS and CAD related formats, including MapInfo and AutoCAD, provided proper format and projection metadata is also submitted. The NIRB requires coordinates for the project proposal which reflect the entire project area as defined by:

   - Area/sites of investigation;
   - Boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;
   - Location of any proposed infrastructure or activity(s); and,
   - Boundaries of the mineral claim block(s) where proposed activities will be undertaken.

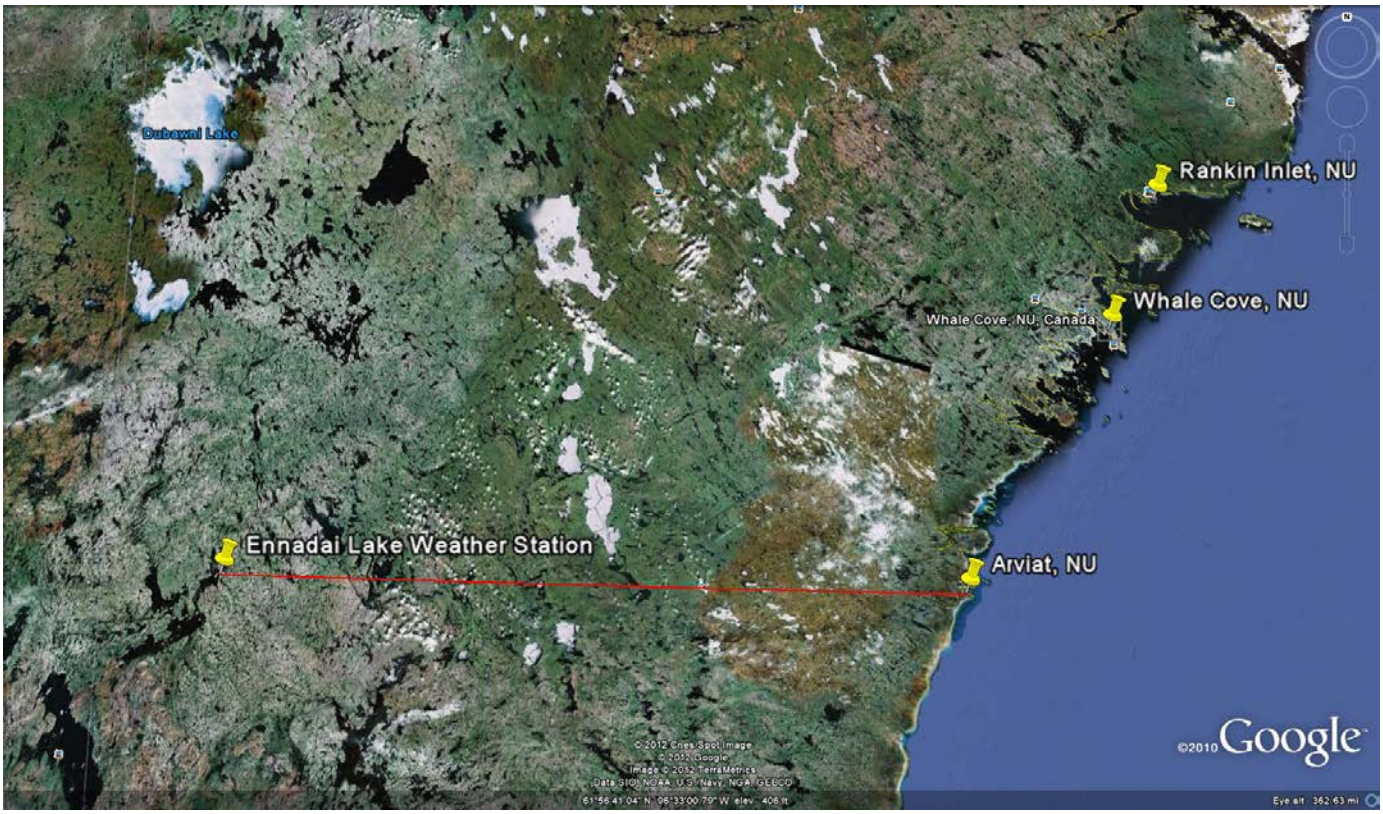
   The Ennadai Lake Weather Station site is located approximately 380 km west of Arviat (the nearest community) and 500 km southwest of Rankin Inlet, Nunavut, at approximately 61° 07' 51" N latitude and 100° 53' 14" W longitude. The proposed site activities will take place within the boundaries detailed below:

   NW: Latitude: (61°08'07" N) Longitude: (100°53'51" W)
   NE: Latitude: (61°08'07" N) Longitude: (100°51'46" W)
   SE: Latitude: (61°07'37" N) Longitude: (100°51'46" W)
   SW: Latitude: (61°07'37" N) Longitude: (100°53'51" W)

   Additional Site Maps and Drawings are provided in Appendix 5. Further details on site activities are available in the Remedial Action Plan (RAP) which can be found in Appendix 4.

2. Map of the project site within a regional context indicating the distance to the closest communities.

   The closest community to Enndai Lake is Arviat, approximately 380 kilometres to the east. Whale Cove is the next closest community, it is located approximately 450 kilometres to the Northeast. Rankin Inlet is also nearby and is located approximately 495 kilometres to the Northeast. See map below.



3. Map of any camp site including locations of camp facilities.

The proposed location of the camp facilities is on a pull-out section off an end of the airstrip on site (GPS Coordinates 61°08'03.8" N, 100°51'59.11" W). The approximate location is indicated in the figure below (see Appendix 5 for additional Site Maps and Drawings).

4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.

   Detailed maps of the project site are provided in Appendix 5 and in the Remedial Action Plan (Appendix 4).

Project General Information

5. Discuss the need and purpose of the proposed project.

   The purpose of the Ennadai Lake Remediation Project is to eliminate/reduce the hazards (human health and environmental) associated with the former Weather Station site. The hazards at the site include PCB paint, Lead paint, heavy metals, asbestos, petroleum hydrocarbons, and physical hazards associated with the site infrastructure and debris.

6. Discuss alternatives to the project and alternative methods of carrying out the project, including the no-go alternative. Provide justification for the chosen option(s).

   Alternative methods for carrying out the project are discussed in the Ennadai Lake Remedial Action Plan (Appendix 4). The Remedial Action Plan also provides justification for the methods chosen based on eliminating/reducing the hazard and the associated costs.

7. Provide a schedule for all project activities.

A project schedule is provided in Appendix 7. The current plan is to begin a pre-mobilization site visit to the site in the summer of 2013 and start full mobilization in March of 2014. Remedial works will begin in the summer of 2014 and continue into the summer of 2015. Remediation will be completed during the summer of 2015 and the equipment and materials will be demobilized from the site in the winter of 2016.

8. List the acts, regulations and guidelines that apply to project activities.

The project is being undertaken in accordance with the following federal and departmental regulations and policies:

- **Nunavut Land Claim Agreement (Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada, 1993)**
- **Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME, 1999)**
- **Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999)**
- **Canadian Environmental Protection Act (EC, 1999)**
- **Nunavut Waters and Surface Rights Tribunal Act (2002)**
- **Nunavut Environmental Guideline for Waste Asbestos (2002)**
- **Contaminated Sites Management Policy (INAC, 2002)**
- **Northern Affairs Contaminated Sites Management Policy (INAC, 2002)**
- **A Federal Approach to Contaminated Sites (CSMWG, 2002)**
- **Risk Management Guidance Document (INAC, 2006)**
- **Contaminated Sites Cost Estimating Guide (AANDC, 2012)**
- **Treasury Board Policy on Management of Real Property (TB, 2006)**
- **Risk Management Tool & Reporting Tool User Guide (INAC, 2007)**
- **Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil (CCME, 2008)**
- **Environment, Health & Safety Management System Manual (AANDC, 2012)**
- **Environment, Health & Safety Standard Operating Procedures Manual (INAC, 2008)**
- **Environment, Health & Safety Control Framework, Northern Contaminated Sites Program (INAC, 2008)**
- **Environment, Health & Safety Audit Program Guide (INAC, 2008)**
- **Construction Project Safety Management Guide, 5th Edition (PWGSC, 2008)**
- **PCB Regulations (EC, 2008)**
- **Abandoned Military Site Remediation Protocol (INAC, 2009)**

9. List the approvals, permits and licenses required to conduct the project.

The approvals, permits and licenses required include:

- **Water Licence (Nunavut Water Board)**

- **Crown Land Use Permit (Aboriginal Affairs and Northern Development Canada)**
- **Crown Land Quarry Permits (Aboriginal Affairs and Northern Development Canada)**
- **Inuit Owned Land Exemption Certificate (Kivalliq Inuit Association)**

DFO Operational Statement (OS) Conformity

10. Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:
    - Bridge Maintenance
      - Not Applicable
    - Clear Span Bridge
      - Not Applicable
    - Culvert Maintenance
      - Yes
    - Ice Bridge
      - Not Applicable
    - Routine Maintenance Dredging
      - Not Applicable
    - Installation of Moorings
      - Not Applicable

    Please see DFO's OS for specific definitions of these activities available from DFO's web-site at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm

11. If any of the DFO's OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, provide a signed statement of confirmation.

    Aboriginal Affairs and Northern Development Canada agrees to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable Operational Statements.

    _____ _____

    Natalie Plato **Date**
    Director – Contaminated Sites

Transportation

12. Describe how the project site will be accessed and how supplies will be brought to site. Provide a map showing access route(s).

A separate Land Use Permit concerning the mobilization/demobilization work for this site has been applied for by our Contractor (Kudlik Construction). All mobilization/demobilization permitting responsibilities lies with the Contractor for the Ennadai Lake Remediation Site (Kudlik Construction Ltd).

For further details on CAT train and mobilization strategy please see Appendix 10.

In October 2013, heavy equipment, camp facilities, material and all consumables will be delivered by sealift to Arviat. All equipment, material and consumables required to achieve the remediation project will be transported by CAT train during the winter 2014 from Arviat to the Ennadai Lake Remediation Site. The permit application for site works and the camp operations at Ennadai Lake will be completed by AANDC. However, the permitting for the overland mobilization falls under the responsibility of Kudlik Construction Ltd.

A study regarding the overland mobilization from Arviat to the Ennadai Lake Remediation site was completed and found to be feasible. Two separate visits were completed in along the route between Arviat and the Ennadai Lake site in order to determine the best route to use for a potential CAT train. Some experienced local people were met and consulted with on the issue. They also indicated that a few overland mobilizations have been completed in the same area recently.

The equipment and materials required for activities will be transported by sealift from Iqaluit to Arviat. Additional equipment and supplies will be also shipped out of Montreal to Arviat on the October 2013 sealift.

A pre-mobilization crew will be sent to Arviat for sealift arrival. The equipment and supplies will be unloaded at the beach landing area and transported to the staging area located one kilometer east of the runway. The equipment will be prepared and organized for the winter overland mobilization.

The first crew will be sent to Arviat in March of 2014, in order to open and mark the CAT train route. The Henik Lake camp will be used as the intermediate camp and a winter camp will be installed at Ennadai Lake. About 2 weeks will be required to open the trail and get both camp facilities operational. The runways at Henik Lake and Ennadai Lake will be plowed and a support crew will be sent to each camp. The support crews will include a cook / medic, a mechanic and a wildlife monitor. The CAT Train between Arviat and Ennadai Lake will be initiated. The mobilization activities will be performed on 24 hours per day. For most of the equipment to be transported, we anticipate that each return trip between Arviat and Ennadai Lake will be completed within 65 hours. About 40 trips will be required to transport all supplies and equipment. Considering that we are using 3 tractors pulling 2 sleighs most of the time, the mobilization from Arviat to Ennadai Lake should be completed within 6 weeks. This schedule

includes 5 days for time lost due to weather conditions or mechanical breakdowns.

Four crews of three drivers will be assigned to operate the 3 Challengers. Each crew will do half of the road and wait for the next crew at the intermediate camp or at the winter camp at the Ennadai Lake Remediation Site. A fifth crew will be assigned on the fourth challenger to do the trail maintenance and bring some fuel and supplies to the intermediate camp.

For further details please see Appendix 10.

2.3 FUEL MANAGEMENT

A total of 976 drums of arctic diesel, which equals about 200,000 litres, will be delivered to Arviat and transported to Ennadai Lake to cover the project activities. The fuel for mobilization activities will be supplied by Eskimo Lumber Supplies out of Arviat. A 4,500 litres dyke tank will be installed at the staging area in Arviat and used to refill the Challenger tanks. This tank will be refilled on a regular basis by the fuel truck supplier. A second dyke tank will be installed at the intermediate camp and will be refilled from a mobile tank which will be transported regularly from Arviat. A third dyke tank will be installed at the Ennadai Lake camp. This tank will be refilled from drums transported during the CAT train.

13. If a previous airstrip is being used, provide a description of the type of airstrip (ice-strip/all-weather), including its location. Describe dust management procedures (if applicable) and provide a map showing location of airstrip.

    The existing runways at Henik Lake Camp and the Ennadai Lake Remediation site will be plowed during the March of 2014.

    The airstrip at the Ennadai Lake site will be used throughout the remediation activities. Minor repairs to the airstrip will be completed on an as-needed basis. The airstrip is approximately 1000 metres long and is oriented in an East-West direction. Maps showing the airstrip can be found in Appendix 5.

14. If an airstrip is being constructed, provide the following information:
    a. Discuss design considerations for permafrost
       - Not Applicable

    b. Discuss construction techniques
       - Not Applicable

    c. Describe the construction materials, type and sources, and the acid rock drainage (ARD) and metal leaching (ML) characteristics (if rock material is required for airstrip bed).

- Not Applicable

d. Describe dust management procedures.
- Not Applicable

e. Provide a map showing location of proposed airstrip.
- Not Applicable

15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

Flights will fly at a minimum altitude of 1,100 metres and maintain a minimum horizontal distance of 1,500 metres from concentrations of birds. Flights will fly between Arviat and the Ennadai Lake Remediation Site.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure

Existing infrastructure at the site includes:

- **Thirteen intact buildings**
- **Five large above ground storage tanks (ASTs)**
- **Pipelines (Including one overhead)**
- **Unmaintained airstrip**
- **Historical trails**
- **Five drum caches**
- **Several upright and downed antenna metal towers**
- **Main debris area (With several small debris areas)**

All existing structures will be demolished as part of the remedial activities

Proposed infrastructure (to support remedial activities) includes:

- **Temporary camp (including two small sewage lagoons and incinerator for waste treatment and disposal)**

17. Describe the type of camp:
    a. Mobile
    - Yes, camp will consist of mobile camp units transported to site
    b. Temporary
    - Yes, camp facility will be removed upon project completion
    c. Seasonal
    - Yes, camp will operate seasonally between June and September for parts of two summers (2014 & 2015).
    - However, in winter of 2014 and 2016, a temporary winter camp will be used in assistance with winter mob/demob activities in conjunction with CAT train.
    d. Permanent
    - No

e. Other
- Not applicable

18. Describe the maximum number of personnel expected on site, including the timing for those personnel involved with the project.

The maximum number of personnel expected to be on site during winter or summer work is 25 persons. Site remediation activities will take place from June to September each year (Except for mob/demob activities to take place in winter of 2014-2016). The number of Personnel on site will be lower at the beginning and end of each season as the camp is set-up/decommissioned/winterized.

Equipment

19. Provide a list of equipment required for the project and discuss the uses for the equipment.

The equipment required to complete the project includes:

Equipments List		
Qty		**Description**
2	ATV	Honda foreman 500
2	ATV	Gator 855
1	Bulldozer	Komatsu D-65
1	Compactor	HAM 3205
976	Drums	Diesel
24	Drums	Gasoline
32	Drums	Jet A
1	Excavator	PC 300 LC-6 + 3 buckets
1	Foldable building	Habitaflex
1	Groomer	For trail maintenance
2	Hagglund	off road vehicles
1	Loader	WA-320 + bucket & forks
48	Marine container	20'x8'x8'
2	Marine container	40'x8'x8'
2	Off-road dump truck	Komatsu HM300-2
1	Pickup crew cab	F350 4x4, diesel
1	Screener	Vibro Screen
2	Snowmobile	Bombardier Skandic
11	Steel sleighs	--
4	Tractor	Challenger 855 D
3	Tank 4,500 litres	Aboveground horizontal dyke tank ULC-S653
2	Tank 23,000 litres	ISO tank

20. If possible, provide digital photos of equipment.

Not available

Water

21. Describe the location of water source(s), the water intake methods, and all methods employed to prevent fish entrapment. Provide a map showing the water intake locations.

Water will be sourced from the Freshwater Lake (Ennadai Lake) located to the west of the site (GPS Coordinates 61°08'01.24"N, 100°53'42.52"W). Water will be pumped from the lake into a tank on either a truck or trailer. It will then be transported to the camp and pumped into the camp tank. The water intake hose (GPS Coordinates 61° 07'59.27"N, 100°53'31.62"W) will be covered with a screen to ensure that no fish become trapped. The figure below shows the Freshwater Lake (Ennadai Lake) and the estimated water intake location. Additional figures are provided in Appendix 5.

22. Describe the estimated rate of water consumption (m^3/day).

Total water consumption is estimated to be ~ 3.0 cubic metres per day:

- **80 litres/day x 25 people (max) = 2,000 litres/day**
- **1,000 litres/day for miscellaneous activities (i.e. equipment and barrel washing)**

23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.

A Bionest Kodiak Waste Water Treatment unit will be installed (For more info see Appendix 9, which includes the Specifications, O & M Manual and details from use of this system at a previously completed similar project CAM-D) in a barge container. The advantages of this system is that there is no need for large sewage lagoons to accumulate the waste water, only a grease trap (kitchen waste water) and a decantation reservoir is needed before the bionest treatment, as well as a small lagoon to accumulate the treated water for analysis before it is released into the environment. The Bionest offers a stable treatment performance throughout the entire season with treatment performance well below the maximum allowable level for Nunavut (See below).

Parameter	Maximum Allowable Level	Bionest
Total Suspended Solids	180 mg/L	3 mg/L
BOD	120 mg/L	4 mg/L
Fecal Coli Forms	10,000 CFU/dl	4,000 CFU/dl

All camp waste water will be directed to a settling tank for the removal of the heavier and settable particles. From there, a small pump equipped with a high/low level, will transfer the waste water to the Bionest where it will be treated. Before being released, the treated water will be accumulated in 2 small lagoons with a capacity of about 35 cubic meters (total of 70 cubic meters, 2 times the weekly waste water production). Upon reception of the water analysis (1 week turnover), the confirmed treated water in the lagoon, will be slowly released into the environment while the other lagoon will start accumulating the treated water from the Bionest. The location of the lagoons will be a minimum of 100 m from the construction camp or other temporary facilities and drainage paths and downwind of the construction camp (based on the prevailing wind direction) (Appendix 5 & 9 for more details).

Any discharge will meet at minimum the below referenced criteria:

- **Biological Oxygen Demand (BOD) – 80 mg/kg**
- **Total Suspended Solids (TSS) – 100mg/kg**
- **Fecal Coliforms – 1 x 104 CFU/100 mL**
- **pH – 6.0 to 9.0**
- **Oil and Grease – no visible sheen**

See Appendix 5 & 9 for additional details on the Wastewater management using the Bionest and the two small sewage lagoons.

24. If applicable, discuss how surface water and underground water will be managed and monitored.

- Not applicable

Waste Water (Grey water, Sewage, Other)

25. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):
    - Sewage

The quantity of sewage (black water) that will be generated is estimated to be 1.5 cubic metres per day:

- **30 litres/day x 25 people (max) = 750 litres/day**

The sewage will be directed into the Bionest unit for treatment.

- Camp grey water

The quantity of camp grey water that will be generated is estimated to be 4.25 cubic metres per day:

- **170 litres/day x 25 people (max) = 4,250 litres/day**

The camp grey water will be directed into the Bionest unit for treatment.

- Combustible solid waste

Combustible solid waste generated from camp operations will be incinerated in an on site incinerator.

- Non-combustible solid waste, including bulky items/scrap metal

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

- Hazardous waste or oil

All hazardous wastes and oil will be packaged as per Transportation of Dangerous Goods (TDG) requirements and shipped south to a facility licenced to dispose of the hazardous materials.

- Contaminated soils/snow

Contaminated soils will be handled as described in the Remedial Action Plan (Appendix 4). To summarize:

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

- Empty barrels/ fuel drums

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

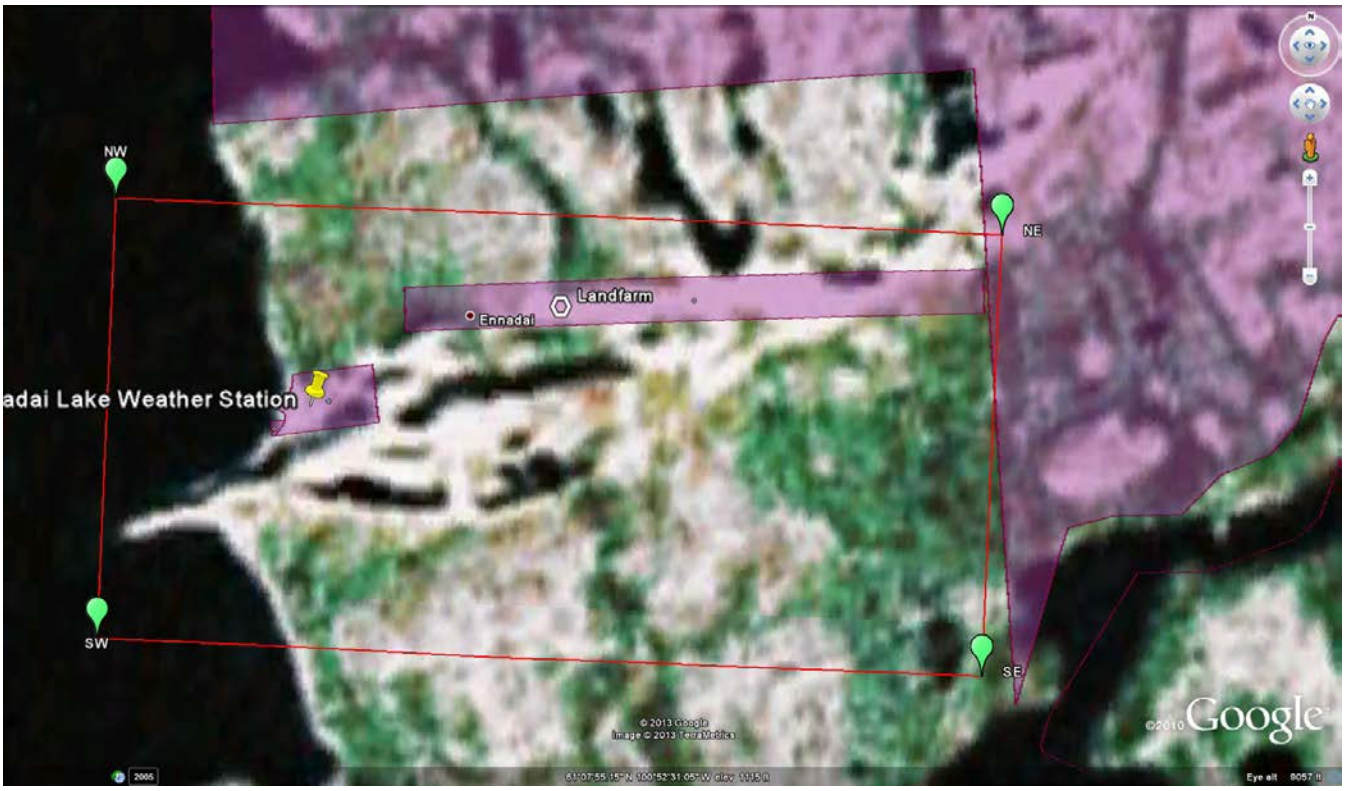
- **Barrels will be inspected, sampled, tested, have any contents removed and treated, cleaned, crushed, packaged, and then be transported to the Ennadai Lake NHWL, where they will be disposed of.**
- **339 barrels have been identified at the Ennadai Lake Rememdiation Site.**
- **Additional barrels resulting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

- Any other waste produced

- None identified at this time.

26. If the project proposal includes a landfill or landfarm, indicate the locations on a map, provide the conceptual design parameters, and discuss waste management and contact-water management procedures.

The Landfarm will be located in the area identified as Landfarm 2 in the Remedial Action Plan (Appendix 4) or also located from the Final Contract documents in Appendix 5. It is located to the west of the airstrip (GPS Coordinates 61° 8'0.86"N, 100°52'47.32"W) and is indicated in the figure below. The Land farm falls on Inuit Owned Land. Additional maps showing the Landfarm can be found in Appendix 5.



A summery of the Landfarm construction and operation details are provided below:

- **The Landfarm will be constructed to the specifications detailed in the table below. Additional information is available in Appendix 5 (C10-C-13 C13 provides the Landfarm Design).**

Footprint (inside toe of berms)	9,600 m^2 (i.e., approximately 103 by 103 m or 66 by 162 m)
Footprint of berms	2,400 m^2
Height of berms	1 m
Type 1– Well-graded Sand and Gravel	~ 1,700 m^3
Type 2 – Bedding Sand	~ 2,900 m^3

- **Landfarm will be lined using a 60 mil HDPE and non-woven geotextile.**
- **Monitoring wells will be installed prior to placing any material in the Landfarm**
- **Material will be placed in the Landfarm to a maximum loose thickness of 300 mm**
- **300 mm maximum thickness of Type 2 fill will be placed above the top layer of geotextile. All granular fill is to be placed in an unfrozen state. Fill material to be free from debris, snow and ice. Do not place granular fill if the outside air temperature is**

- **below 0°C, unless otherwise directed by Departmental Representative.**
- **Nutrients will be added to the Landfarm as required**
- **The moisture content of the Landfarm will be maintained at approximately 5%**
- **Tilling will be completed once every 10 days. During extended warm, dry periods the frequency will be increased to once every 5 days**
- **Tilling and irrigation will be suspended if the average daily temperature is below 0°C for a period over 5 days**
- **The perimeter water collection system will be inspected weekly and after any precipitation event to ensure it does not overflow**
- **Contact water collected will be tested, treated as required, and discharged once Water Licence discharge criteria are met**
- **When operations are complete the Landfarm will be closed by taking confirmatory samples, removing the perimeter berms, regrading the area to fill in ditches and prevent ponding, and decommissioning of the monitoring wells.**

The Landfill will be located in the area identified as Landfill 2 in the Remedial Action Plan (Appendix 4) or also located from the Final Contract documents in Appendix 5. It is located to the southwest of the airstrip (GPS Coordinates 61° 7'57.36"N, 100°53'5.86"W) and is indicated in the figure below. The Landfill falls on Crown Land. Additional maps showing the Landfill can be found in Appendix 5.

A summary of the Landfill construction dimensions and granular fill quanities are detailed in the table below:

- **The Landfill will be constructed to the specifications detailed in the table below. Additional information is available within the Landfill drawings located in Appendix 5 (C10-C13).**

Footprint (inside toe of berms)	11.4 x11.4 m
Footprint (outside toe of berms)	Approximately 30.6 x 32.5 m
Height of berms	Ranging from 1 to 2.5 m
Type 1 – Well-graded Sand and Gravel (berms and cover)	~ 1,000 m^3
Select Type 1 – Coarse-Grained Material (side slopes)	~ 400 m^3
Type 2 – Sand (intermediate fill)	~ 65 m^3

A Summary of the Landfill construction and operation details are provided below:

- **Monitoring wells will be installed prior to placing any material in the Landfill**
- **Lay out work in detail from survey control points. Verify the original ground topography by survey. If survey verification is not completed, original ground is to be as shown on the Drawings**
- **Level and maintain the landfill base elevation 335.45 metres by cut and fill as required.**
- **Construct landfill perimeter berms to design elevations (Type 1 granular fill), while leaving an access corridor.**
- **Landfilling Non-Hazardous Wastes**
  - **Place Non-Hazardous Wastes in the designated area(s) in uniform, horizontal lifts between and against the berm as shown on the Drawings. The thickness of each waste lift is to be such that all voids within the waste can be filled with 0.15 metre intermediate cover. The maximum thickness of each waste lift is to not exceed 0.5 metres.**
  - **Compact waste during placement with a double steel drum compactor or approved alternative during placing and spreading of the waste material. The equipment must be capable of crushing demolition debris.**
  - **For placement in landfills, cut all demolition material and debris as required:**
    - **to minimize displacement and lifting of landfilled materials resulting from landfill compaction operations;**
    - **To satisfy the overall landfill dimension requirements as indicated on the Drawings.**

    - **large equipment/vehicles shall be cut to length and reduced in volume at the recommendation and discretion of the on-site Departmental Representative.**
- **Cut structural steel materials into separate members prior to placement in landfills. Place large materials including structural steel members, timbers, communication dishes, etc. on the base of the landfill or on the base of an intermediate cover layer so that the materials lay on a compacted, flat surface. Cut hollow components or objects, such as tanks, as required, to allow for nesting of materials. As a minimum, hollow components are to be cut in half parallel to the lengthwise axis. Within the landfill, support the underside of nested materials with intermediate cover or other debris material to minimize displacement and lifting of materials.**
- **Segregate all metal demolition material and debris from other material when placed in the landfill. The proposed location of the metal waste area within the landfill shall be reviewed by the Departmental Representative.**
- **Segregate all asbestos material from other material, and consolidate in one single location within the landfill. The proposed location of the asbestos waste within the landfill is to be reviewed by Departmental Representative. Record the specific location and depth of this material on the Project Record Drawings.**
- **Hand place double bagged asbestos in the landfill. Provide daily intermediate cover of minimum 150 mm on asbestos waste. Do not operate equipment directly on asbestos waste containers. Replace ripped or torn asbestos waste bags. Location and quantity of asbestos shall be surveyed and recorded on the final landfill as-built drawings.**
- **Place additional Intermediate Fill material on the final lift of debris to a level that all debris is covered prior to placement of Type 2 cover.**
- **Stockpile Intermediate Fill adjacent to landfilling operations. Ensure that a stockpile is continuously maintained.**
- **Place and compact to a minimum of 95% of Maximum Dry Density, additional intermediate cover material, as required, to completely infill voids within the waste layer prior to proceeding with the placement of the next overlying waste layer and prior to placement of final cover.**
- **Take special care to place and compact intermediate cover material against exposed rock faces and areas inaccessible to tracked compaction equipment to specified requirements.**
- **Dewater the landfill, as required, to maintain the facility free of standing water during landfilling activities. Comply with the requirements of the Wastewater Discharge Criteria. Provide temporary storage and/or necessary treatment for all Wastewater to**

be able to meet the Wastewater Discharge Criteria and allow for discharge.

- **In the event that the landfill is not constructed, filled, and capped in one construction season, winterize the landfill by placing and compacting a temporary 0.5 metre cap of clean material over extents of placed waste. The temporary cap will be removed at the beginning of the following construction season prior to placing additional waste.**
- **Do not place final cover (Type 2 Granular Fill) until Departmental Representative has determined that there is sufficient intermediate cover.**
- **Construct final cover over landfill to the specified thicknesses and grades as indicated.**

Further information concerning the landfill can be found in the remedial action plan in section 9.5 (Appendix 4).

Fuel

27. Describe the types of fuel, quantities (number of containers, type of containers and capacity of containers), method of storage and containment. Indicate the location on a map where fuel is to be stored, and method of transportation of fuel to project site.

    The table below provides a summary of the fuel types, quantities, container types and storage methods that we anticipate using:

FUEL TYPE*	QUANTITY (Estimated)*	CONTAINER (Type / # / Capacity)*	METHOD OF STORAGE*
Diesel	200,080 litres	Drums / 976 / 205 litres	On pallets, 4 drums each, strapped
Gasoline	4,920 litres	Drums / 24 / 205 litres	On pallets, 4 drums each, strapped
Aviation Fuel	6,560 litres	Drums / 32 / 205 litres	On pallets, 4 drums each, strapped
Propane	None		

*** Subject to change once a contractor is hired to complete the work**

The fuel will be stored near the camp but at least 100 metres from the camp facilities. See the camp location indicated in the map provided for question 3.

28. Describe any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.

    All fuel drums will be stored together. The storage area will be inspected daily. Drums that are in use will be stored in insta-berms (or similar) to

contain any spills. Spill kits and empty drums or tanks will be kept in near the storage area so that any spills can be contained and cleaned up.

29. Describe the method of fuel transfer and the method of refuelling.

    An electric pump will be used to transfer fuel from the drums into the equipment or tank. All fuel transfers will be supervised and spill kits will be readily available to address any spills.

30. Describe spill control measures in place.

    All fuel transfers will be supervised and spill kits will be readily available to address any spills. The exact location and contents of the spill kits will be determined once a contractor is hired.

Please refer to Environment Canada's fuel storage tank system regulations (*Storage Tank System for Petroleum and Allied Petroleum Products*) website at http://www.ec.gc.ca/st-rs/ for details on fuel storage requirements.

Chemicals and Hazardous Materials*

**included but not limited to oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries and cleaners*

31. Describe the types, quantities (number of containers, the type of container and capacity of containers), method of storage and containment. Indicate the location on a map where material is to be stored, and method of transportation of materials to project site.

    A small amount of oil and grease will be brought to site to complete the maintenance requirements for the equipment on site. These will be transported as per the requirements of the Transportation of Dangerous Goods (TDG) Act & Regulations. The oil and grease will be stored in the fuel storage area until used. Used oil and grease will be collected and shipped off site for disposal at a licenced disposal facility. The exact quantities of these will be determined once a contractor is hired.

32. Describe any secondary containment measures to be employed, including the type of material or system used.

    The secondary containment that will be employed are insta-berms (or similar) for the products that are in use.

33. Describe the method of chemical transfer.

    Not applicable

34. Describe spill control measures in place.

Spill kits will be readily available on all equipment and in areas that the oil and grease are being used. The exact location and contents of the spill kits will be determined once a contractor is hired.

Workforce and Human Resources/Socio-Economic Impacts

35. Discuss opportunities for training and employment of local Inuit beneficiaries.

The contract for remedial activities will contain an Aboriginal Opportunities Considerations (AOC) clause that requires the contractor to maintain a target level of Inuit employment on the project (and applies a penalty if the contractor fails to meet the target level). On past similar projects the Inuit employment level in the AOC has been in the range of 50-70%. The AOC also sets a target level of Inuit subcontracting. Past similar projects have had minimum Inuit subcontracting levels of 60-80%.

The contract will also contain a training fund that will allow the contractor access to up to 2% of the contract value, to a maximum of $200,000, to provide training programs to local Inuit beneficiaries.

36. Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.

The workforce will be mobilized to site from Arviat, via charter aircraft. Work will take place during July to October in the first year and then between June and September of the second year. The exact schedule will depend on the contractor's schedule. Workers will work on a rotational schedule to be determined by the contractor.

37. Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.

Not applicable

Public Involvement/ Traditional Knowledge

38. Indicate which communities, groups, or organizations would be affected by this project proposal.

This project is closest to Arviat. However, Whale Cove and Rankin Inlet are also communities with historical interest in this site. Therefore, Residents of Arviat, Whale Cove and Rankin Inlet will be informed of the project's progress throughout the project life. The project will also remove hazardous materials from the environment; this will benefit human and environmental health in the area.

39. Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.

A community consultation was held in Arviat, in December 2012 to discuss the draft Remedial Action Plan (RAP) prior to it being finalized. A meeting was also held with the Kivalliq Inuit Association in Rankin Inlet to inform them of the project plan.

40. Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.

A community consultation was held in Arviat, in December 2012 to discuss the draft Remedial Action Plan (RAP) prior to it being finalized. A meeting was also held with the Kivalliq Inuit Association in Rankin Inlet to inform them of the project plan.

No community concerns with respect to our remedial work, were raised during the community meeting in Arviat. However, there were concerns raised with regards to the historical significance at the site.

The results of the Archaeological Impact Assessment completed in 2012, identified several archaeological features nearby the site, that will be avoided during remedial activities. The community also identified a potential additional area of concern, with historical significance that will be investigated prior to remedial activities commencing.

41. Describe how traditional knowledge was obtained, and how it has been integrated into the project.

Traditional knowledge was obtained through the community consultation that took place in Arviat. Many comments were recorded during the community consultation (Many personal stories dating back to the 60s-80s during the active weather station times). An overall concern was with the historical significance at the site. Many local people wanted to ensure that the areas of historical significance would not be disturbed during our remediation activities. Many stories of why these areas are significant were also shared at the meeting. The traditional knowledge provided has allowed a better remediation plan to be developed and has also identified the importance of preserving any archaeological features or artifacts that exist in the area.

The overall experience in Arviat was a positive one and everyone seemed to enjoy the event.

42. Discuss future consultation plans.

Additional community meetings will be held in Arviat as well as nearby Whale Cove and Rankin Inlet. With the historical significance at the site

identified at the Arviat Meeting. Many people mentioned that other interested parties moved to Whale Cove and Arviat. Therefore, in light of this new information and in order to gain more traditional knowledge concerning the Ennadai Lake site, the community consultations were expanded to include 2 other nearby communities (Whale Cove and Rankin Inlet).

The community consultation meeting in Arviat will be in the fall of 2013 to tell people about the plan for the winter mobilization and summer work and associated potential employment/training and sub-contracting opportunities. Where as, the additional meetings held in Whale Cove and Rankin Inlet will be information sessions only. There will also be an inter-season meeting held prior to the 2015 summer activities (May/June 2015) and one at the conclusion of the work in either late 2015 or early 2016. The purpose of the final meeting will be to let the communities know the results of the work.

3. PROJECT SPECIFIC INFORMATION

The following table identifies the project types identified in Section 3 of the NIRB, Part 1 Form. Please complete all relevant sections.

It is the proponent's responsibility to review all sections in addition to the required sections to ensure a complete application form.

Table 1: Project Type and Information Required

Project Type	Type of Project Proposal	Information Request
1	All-Weather Road/Access Trail	Section A-1 and Section A-2
2	Winter Road/Winter Trail	Section A-1 and Section A-3
3	Mineral Exploration	Section B-1 through Section B-4
4	Advanced Mineral Exploration	Section B-1 through Section B-8
5	Mine Development/Bulk Sampling	Section B-1 through Section B-12
6	Pits and Quarries	Section C
7	Offshore Infrastructure(port, break water, dock)	Section D
8	Seismic Survey	Section E
9	Site Cleanup/Remediation	Section F
10	Oil and Natural Gas Exploration/Activities	Section B-3 and Section G
11	Marine Based Activities	Section H
12	Municipal and Industrial Development	Section I

SECTION A: Roads/Trails

A-1. Project Information

1. Describe any field investigations and the results of field investigations used in selecting the proposed route (e.g. geotechnical, snow pack)

   Not applicable. Only pre-existing roads/trails on site will be used.

2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.

   Not applicable. Only pre-existing roads/trails on site will be used. See Appendix 5 Site Maps and Drawings for additional details.

3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).

   The pre-existing roads/trails on site will be used during the field season (June-October).

4. Discuss public access to the road.

   Public access will not be permitted.

5. Describe maintenance procedures.

   Maintenance will be performed as required and include the addition of material, compaction, and culvert installation and replacement.

A-2. All-Weather Road/Access Trail

6. Discuss road design considerations for permafrost.

   Not applicable. Only pre-existing roads/trails on site will be used.

7. Describe the construction materials (type and sources for materials), and the acid rock drainage (ARD) and metal leaching characteristics of the construction materials.

   Not applicable. Only pre-existing roads/trails on site will be used.

8. Discuss construction techniques, including timing for construction activities.

   Not applicable. Only pre-existing roads/trails on site will be used.

9. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.

   See Appendix 5 - Site Maps and Drawings.

10. Identify the proposed traffic speed and measures employed to ensure public safety.

Speed limit will be 30 kilometres per hour. No public access permitted.

11. Describe dust management procedures.

None planned. If necessary, dust will be suppressed by adding water to the roads.

A-3. Winter Road/Trail

12. Describe the surface preparation, including the use of snow berms or compaction, and any flooding. If flooding is to be used, provide the location of the water source on a map.

Not applicable. No winter road planned.

13. Describe the operating time period.

Not applicable. No winter road planned.

14. Identify the proposed traffic speed and measures employed to ensure public safety.

Not applicable. No winter road planned.

15. Discuss whether the selected route traverses any fish-bearing water bodies.

Not applicable. No winter road planned.

SECTION B: Mineral Exploration /Advanced Exploration /Development

B-5 Stripping/ Trenching/ Pit Excavation

1. Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other)

Mechanical, excavations will be completed with an excavator.

2. Describe expected dimensions of excavation(s) including depth(s).

The dimensions of the borrow areas that will be developed are indicated on the Site Maps & Drawings in Appendix 5. Further information on the borrow areas is provided in the table below:

Table 4: Volumes and Material Types Within Each Borrow Source

Borrow Source	Estimated Volume (m^3)	Material Description
Borrow 1	8,800	Gravelly sand with trace of fines; silt and sand
Borrow 2	12,000	Gravel and sand with trace of fines
Borrow 4	17,600	Gravelly sand with trace of fines; gravel and sand with trace of fines
Borrow 5	15,200	Sand; gravelly sand to silty sand
Borrow 6	9,000	Sand and gravel
Borrow 7	27,900	Gravelly sand with some fines
Borrow 8	6,500	Sand and gravel and some cobbles

3. Indicate the locations on a map.

See Appendix 5 - Site Maps and Drawings.

4. Discuss the expected volume material to be removed.

The expected volume of material required for the project is summarized in the table below:

Table 18: Summary of Granular Fill Requirements

Use	Material Type	Estimated Volume Required (m^3)
Landfarm – Berms	Type 1: Sand and Gravel	1,700
Landfarm – Demarcation Sand	Type 2: Sand	2,900
Landfill – Berms and Cover	Type 1: Sand and Gravel	1,000
Landfill – Intermediate Fill	Type 2: Sand	65
Landfill – Erosion Control on Side-slopes	Select Type 1: Coarse-Grained Material	400
Backfill	Type 2: Sand or Type 1: Sand and Gravel	2,000
Road Construction and Maintenance	Type 1: Sand and Gravel	To be determined by contractor

Further details on the material requirements can be found in the Remedial Action Plan (RAP) in Appendix 4.

5. Discuss methods used to determine acid rock drainage (ARD) and metal leaching potential and results.

If the borrow material is suspected of having acid rock drainage and metal leaching potential then it will be sampled. This is unlikely as the material used will be from the surface/near surface and no blasting will occur.

SECTION C: Pits and Quarries

1. Describe all activities included in this project.
   - Pitting

     None

   - Quarrying

     See Section B-5 above

   - Overburden removal

     None

   - Road use and/or construction (please complete Section A)

     See Section A above

   - Explosives transportation and storage

     None

   - Work within navigable waters

     None

   - Blasting

     None

   - Stockpiling

     None

   - Crushing

     None

   - Washing

     None

   - Other

     None

2. Describe any field investigations and the results of field investigations used in determining new extraction sites.

   A geotechnical assessment was completed in 2012. The Remedial Action Plan (Appendix 4) summarizes the identified borrow areas.

3. Identify any carving stone deposits.

   None identified

4. Provide a conceptual design including footprint.

   See Appendix 5 - Site Maps and Drawings

5. Describe the type and volume of material to be extracted.

   See Section B-5 above

6. Describe the depth of overburden.

   None

7. Describe any existing and potential for thermokarst development and any thermokarst prevention measures.

   None

8. Describe any existing or potential for flooding and any flood control measures.

   None

9. Describe any existing or potential for erosion and any erosion control measures.

   Borrow areas will be re-graded and sloped to prevent erosion.

10. Describe any existing or potential for sedimentation and any sedimentation control measures.

    None, if any identified then silt fences will be installed as required.

11. Describe any existing or potential for slumping and any slump control measures.

    None

12. Describe the moisture content of the ground.

    Well drained

13. Describe any evidence of ice lenses.

    None

14. If blasting, describe methods employed.

    Not applicable

15. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

    Not applicable

16. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

    If the borrow material is suspected of having acid rock drainage and metal leaching potential then it will be sampled. This is unlikely as the material used will be from the surface/near surface and no blasting will occur.

17. Discuss safety measures for the workforce and the public.

    A Site Specific Health and Safety Plan (SSHSP) will be developed and implemented for the project. Public access is prohibited.

SECTION F: Site Cleanup/Remediation

1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map).

   There are no existing dumps or landfills at the Ennadai Lake Remediation site. During the Phase III work, 2 debris areas were investigated. However, the samples did not exceed criteria. The contents of these debris areas were investigated at the surface only. However are suspected to only contain non-hazardous debris. Further information on the debris areas can be found in the Remedial Action Plan (RAP) in Appendix 4. The site Maps and Drawings in Appendix 5 show the locations of the debris areas.

2. Identify salvageable equipment, infrastructure and/or supplies.

   None

3. Provide a list of all contaminants to be cleaned up, anticipated volumes and a map delineating contaminated areas. This includes buildings, equipment, scrap metal and debris, and barrels as well as soil, water (surface and groundwater) and sediment.

The contaminants to be cleaned up include:

- **Hazardous materials (includes PCB paint, lead paint, Heavy Metals, Asbestos, Batteries, Compressed gas cylinders, etc.)**
  - **392 cubic metres solid materials**
  - **339 drums**
  - **18,357 L of old diesel in historical tanks**
- **Non-hazardous materials**
  - **1503.4 cubic metres solid material**
  - **762 drums**
- **Contaminated soils**
  - **Tier II**
    - **0.5 cubic metres**
  - **Type B Hydrocarbons**
    - **2,146 cubic metres**

Maps delineating the contaminated areas can be found in the Remedial Action Plan (RAP) (Appendix 4) and the Site Maps and Drawings (Appendix 5).

4. Describe the degree of pollution/contamination, and list the contaminants and toxicity.

The degree of pollution/contamination is low to moderate.

5. Describe technologies used for clean-up and/or disposal of contaminated materials. Include a list of all the physical, chemical and biological cleanup/ remediation methods, operational procedures, and the dosage/frequency of reagents and bacterial medium.

Only proven methods/technologies will be used. See the Remedial Action Plan (Appendix 4) for the clean-up plans.

6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures.

All hazardous materials will be shipped off-site for disposal. Hazardous materials will be transported to southern licenced disposal facilities (exact facilities to be determined). Non-hazardous material will be transported to the Ennadai Lake non-hazardous waste landfill to be disposed of, which will be constructed there. See the Remedial Action Plan (Appendix 4) for further details.

7. Discuss the viability of landfarming, given site specific climate and geographic conditions.

Landfarming has proven to be a viable option for the treatment of hydrocarbons on other Distant Early Warning (DEW) Line sites. This

technique is most effective on lighter end hydrocarbons and typically requires a couple of seasons to reduce contaminant levels to below criteria. Building the landfarm and starting treatment on the 2,146 cubic metres of hydrocarbon contaminated soil will be the first priority for the contractor on this project. Completing this task first will allow for the maximum about of treatment time.

8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable).

   None

9. If blasting, describe the methods employed.

   Not applicable

10. Describe all methods of erosion control, dust suppression, and contouring and re-vegetation of lands.

    None required

11. Describe **all** activities included in this project.
    - Excavation (please complete Section B-5)

      See Section B-5

    - Road use and/or construction (please complete Section A)

      See Section A

    - Airstrip use and/or construction

      See Part 2 – Transportation Questions 12-15.

    - Camp use and/or construction

      See Part 2 – Camp Site Transportation Questions 16-18.

    - Stockpiling of contaminated material

      Contaminated materials will be consolidated and packaged for transportation. They will be stored at a staging area until they are loaded onto the barge/sealift for removal from site. Confirmatory samples will be taken from the staging area once the materials are removed to confirm that the area is not contaminated.

    - Pit and/or quarry (please complete Section C)

      See Section C

- Work within navigable waters (please complete Section H)

  Not applicable

- Barrel crushing

  See Part 2 – Waste Water Questions 25. Empty barrels will be handled as per the Barrel Protocol described in the Abandoned Military Site Remediation Protocol (INAC 2009) which is referenced throughout the Remedial Action Plan (Appendix 4).

- Building Demolition

  Existing infrastructure at the site includes:
  - **13 intact buildings**
  - **Several upright and downed antennas**
  - **5 large above ground storage tanks (ASTs)**
  - **Pipeline (including one overhead)**
  - **Unmaintained airstrips**
  - **Trails**
  - **5 drum caches**
  - **Debris areas**

  All existing structures will be demolished as part of the remedial activities. See Appendix 4 for additional details.

- Other

  None

4. DESCRIPTION OF THE EXISTING ENVIRONMENT

Describe the existing environment, including physical, biological and socioeconomic aspects. Where appropriate, identify local study areas (LSA) and regional study areas (RSA).

Please note that the detail provided in the description of the existing environment should be appropriate for the type of project proposal and its scope.

The following is intended as a guide only.

The existing environment is described in the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake, Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6.

Physical Environment

Please note that a description of the physical environment is intended to cover all components of a project, including roads/trails, marine routes, etc. that are in existence at present time.

- Proximity to protected areas, including:
  i. designated environmental areas, including parks;
  ii. heritage sites;
  iii. sensitive areas, including all sensitive marine habitat areas;
  iv. recreational areas;
  v. sport and commercial fishing areas;
  vi. breeding, spawning and nursery areas;
  vii. known migration routes of terrestrial and marine species;
  viii. marine resources;
  ix. areas of natural beauty, cultural or historical history;
  x. protected wildlife areas; and
  xi. other protected areas.
- Eskers and other unique landscapes (e.g. sand hills, marshes, wetlands, floodplains).
- Evidence of ground, slope or rock instability, seismicity.
- Evidence of thermokarsts.
- Evidence of ice lenses.
- Surface and bedrock geology.
- Topography.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks).
- Sediment and soil quality.
- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones).
- Tidal processes and bathymetry in the project area (if applicable).
- Water quality and quantity.
- Air quality.
- Climate conditions and predicted future climate trends.
- Noise levels.

- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Biological Environment

- Vegetation (terrestrial as well as freshwater and marine where applicable).
- Wildlife, including habitat and migration patterns.
- Birds, including habitat and migration patterns.
- Species of concern as identified by federal or territorial agencies, including any wildlife species listed under the *Species at Risk Act (SARA)*, its critical habitat or the residences of individuals of the species.
- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Socioeconomic Environment

- Proximity to communities.
- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project (Local Study Area) and adjacent area (Regional Study Area).
- Palaeontological component of surface and bedrock geology.
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.
- Local and regional traffic patterns.
- Human Health, broadly defined as a complete state of wellbeing (including physical, social, psychological, and spiritual aspects).
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.

5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

The identification of impacts and proposed mitigation measures are described in the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components/activities and project phase(s) identified in Section 4 of this document. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non- mitigable (N), or unknown (U).

   See Table 1 below.

2. Discuss the impacts identified in the above table.

See Section 7.0 page 31- 50, which includes various tables with discussion of impacts in the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6

3. Discuss potential socioeconomic impacts, including human health.

   See the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6.

4. Discuss potential for transboundary effects related to the project.

   None

5. Identify any potentially adverse effects of the project proposal on species listed under the *Species at Risk Act (SARA)* and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.

See the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6

6. Discuss proposed measures to mitigate all identified negative impacts.

See the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6

6. CUMULATIVE EFFECTS

Discuss how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

The cumulative effects of this project are discussed in the "Environmental Screening Report: Ennadai Lake Weather Station under the Nunavut Impact Review Process Ennadai Lake Nunavut" (March 2013) prepared by EBA. This report can be found in Appendix 6

7. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan

See Remedial Action Plan in Appendix 4.

- Existing site photos with descriptions

Site photos are available in the Remedial Action Plan in Appendix 4 (Appendix C).

- Emergency Response Plan

See Site Specific Health and Safety Plan appendix 11.

- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts)

See Spill Contingency Plan Appendix 12

- Waste Management Plan/Program

Not available, will be completed prior to mobilizing to site.

- Monitoring and Management Plans (e.g. water quality, air pollution, noise control and wildlife protection etc.)

Not available, will be completed prior to mobilizing to site.

- If project activities are located within Caribou Protection Areas or Schedule 1 Species at Risk known locations, please provide a Wildlife Mitigation and Monitoring Plan

Not applicable

In addition, for Project Type 9 (Site Cleanup/Remediation), please provide the following additional supporting documents:

- Remediation Plan including cleanup criteria and how the criteria were derived.

See Appendix 4.

- Human Health Risk Assessment of the contaminants at the site.

Not necessary to complete for this site.

TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

		ENVIRONMENTAL COMPONENTS	PHYSICAL	designated environmental areas (ie. Parks, Wildlife Protected areas)	ground stability	permafrost	hydrology/ limnology	water quality	climate conditions	eskers and other unique or fragile landscapes	surface and bedrock geology	sediment and soil quality	tidal processes and bathymetry	air quality	noise levels	other VEC: Archaeological	other VEC: Aestheics	other VEC:	BIOLOGICAL	vegetation	wildlife, including habitat and migration patterns	birds, including habitat and migration patterns	aquatic species, incl. habitat and migration/spawning	wildlife protected areas	other VEC:	other VEC:	other VEC:	SOCIO-ECONOMIC	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health	other VSEC Land Use
PROJECT ACTIVITIES																																	
CONSTRUCTION	Site grading & borrow development				M			M						M							M	M	M										
	Dump closure																																
	Site re-grading				P																												
	Facility demolition																				M	M											
OPERATION	Hydrocarbon contaminated soil removal & landfarming													N																		P	
	Vehicle etc emissions													M																			
	Contaminated soil removal				M			P				P		P							P	P	P/M									P	
	Transportation of hazardous goods							M				M																					
	Camp operation				M			M				M																					
	General activities															M	P				M	M								P			M
DECOMMISSIONING																																	

Note: Please indicate in the matrix cell whether the interaction causes an impact and whether the impact is

P = Positive
N = Negative and non-mitigatable
M = Negative and mitigatable
U = Unknown

If no impact is expected please leave the cell blank