INDIAN AND NORTHERN AFFAIRS CANADA
NUNAVUT REGIONAL OFFICE

SUMMARY OF TECHNICAL ACTIVITIES - 2006

RESOLUTION ISLAND PROJECT

BAF-5: ABANDONED POLE VAULT MILITARY RADAR STATION

Prepared by:

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QIKIQTAALUK ENVIRONMENTAL

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QIKIQTAALUK CORPORATION

January 2007

SUMMARY OF TECHNICAL ACTIVITIES - 2006

RESOLUTION ISLAND PROJECT

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January 2007

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EXECUTIVE SUMMARY

An abandoned radar station located on Resolution Island (RI) at the south-eastern tip of Baffin Island was left in poor environmental condition. Previous investigations performed at this former USAF station determined the extent of environmental problems from past occupation. The Resolution Island Project consisted of the removal and disposal of PCB contaminated soils, as well as the management of other health and environmental risks such as hydrocarbon and metal contaminated soils, asbestos, and waste drums. Training was an important aspect of this project. A fully operational core camp accommodated a working crew of approximately 70 persons.

The Resolution Island Project started in 1998 after several years of investigations and the clean-up was completed in 2006. The work accomplished by Qikiqtaaluk Corporation (QC) is summarized as follows:

1997: Initial equipment mobilization from Iqaluit to RI. QC sent a 20 person crew to RI for sea lift operations and basic core camp renovations. QC also provided technical support to Queen's University ASU, and LDS (now Sinanni) for their respective field work.

1998: QC sent a 40 person crew to RI to complete camp renovations, to manage materials and equipment shipped from Montreal, to assemble a 290,000 litre fuel tank farm, to remove asbestos from abandoned buildings, to repair roads, and to provide training to Inuit in trades related to the scope of work.

1999: QC sent a 50 person crew to RI from June 15 to September 15. Activities included beach lead dump excavation and waste sorting, removal and containerization of mercury contaminated soils; off-site shipment of PCBs and other hazardous waste, furniture dump excavation, building demolition, construction/operation of a NH waste landfill, shredding and disposal of empty drums, incineration of POL products, structural steel construction to join the two maintenance buildings, and aluminium recycling.

2000: QC sent a 50 person crew to RI from July 5 to September 15. The main tasks accomplished included: excavation of the Furniture Dump, demolition of PCB contaminated buildings and containerization of CEPA material, removal of CEPA soil from S1/S4 building area, set up and operation of a drum staging/sorting/pumping/washing station, operation of an

oil separator / water treatment system, waste oil incineration, construction of a road to Lower Lake borrow pit, relocation of the sewage line and lagoon.

2001: QC sent a 50 person crew to RI from July 4 to September 3. Activities included: excavation of CEPA PCB soil from S1/S4 building and drainage area, excavation of waste from Beach Dumps, drainage and treatment of phenol contaminated water from beach POL tanks, clean up of Battery Dump, installation of trial silt fence in drainage path of former Furniture Dump, drainage of fuel from beach POL tank, management and incineration of waste POL products, construction of a new road to Radio Hill, operation of a new borrow pit located behind Radio Hill.

2002: QC sent a 50 person crew to RI from July 12 to August 28. Activities included: excavation of CEPA PCB soil from upper S1/S4 valley and PCL dump; repair old 3.1 m^3 steel containers to RI Environmental Impact Statement (EIS) specifications, containerize PCB CEPA soil from the Main PCB storage building; remove waste debris from Beach Dumps, remove and manage POL drums from various areas, incinerate grease and other waste POL products.

2003: QC sent a 60 person crew to RI from June 18 to September 14. Activities included: removal of remaining CEPA PCB soil from the S1/S4 valley; containerization of PCB CEPA soil from the Main and B2 PCB storage buildings, clean up and cover Airstrip dump, clean up debris from Maintenance dump, incinerate grease and other waste POL products; drums of hazardous waste shipped south for disposal, gravel production and partial construction of Tier II landfill berm core.

2004: QC sent over 60 workers to RI from June 14 to September 17. The main tasks accomplished included: Clean Up of CEPA PCB soils; excavation and temporary stockpiling of PCB Tier II soil from the S1/S4 valley; PCB Containerization and Storage of the CEPA soil; repackaging and containerization of various CEPA waste materials in compliance with TDG Regulations; Tier II Landfill: completion of the construction of the berm core, protective sand layer, installation of bottom geotextile and geomembrane, monitoring wells.

2005: QC sent over 60 workers to RI from June 16 to September 11. The main tasks accomplished included: Finalizing the construction of the Tier II Landfill; excavation of all remaining contaminated soils (CEPA, PCB Tier I/II, Co Tier II, Pb Tier I/II and Cu Tier II); placement of all contaminated Tier II soil and debris and all Tier I soil within the Tier II landfill; containerization of all remaining CEPA soil for off-site disposal; excavation and containerization

of heavy hydrocarbons excavation for off-site disposal; gravel production at three borrow pits; coordination of 2 dry sealifts; coordination of 1 wet sealift (fuel delivery); collection, hauling, shredding and disposal into non-hazardous waste landfill of all remaining site debris; incineration of remaining waste petroleum products; hazardous waste packaging, labelling and marine shipment for south disposal at registered facilities.

2006: The Resolution Island 2006 field season constituted the final effort to complete this challenging project. For the last year, QC sent 29 workers to RI from July 18 to September 5. The 2006 field season was essentially dedicated to the completion of the Tier II landfill and the small camp set up to be used for future site monitoring activities, and to the packaging and demobilization of all assets.

The above activities are described in section 2 to 5 of this report.

This project is funded by the Environment and Contaminants Office, Indian and Northern Affairs Canada (INAC). Every year INAC mandated QC through a Contribution Agreement. QC is owned by the Qikiqtani Inuit Association (QIA), the Inuit birthright organization representing the Qikiqtani (Baffin Island) region of Nunavut.

The Resolution Island Project provided long-term benefits to Inuit from Nunavut communities through employment and training. Furthermore, by removing the source of pollution, the project attenuated the environmental impacts on nearby communities, thereby protecting the health and future of the Inuit.

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GLOSSARY

ASU:	Analytical Services Unit (Queen's University)
EIS:	Environmental Impact Statement
HC:	Hydrocarbon contaminated (in reference to soils)
H&S:	Health and Safety
INAC	Indian and Northern Affairs Canada
NTI:	Nunavut Tunngavik Incorporated
NSSI:	Nunavut Sealink and Supply Inc.
PMT:	Project Management Team
POL:	Petroleum Oil & Lubricants
QIA:	Qikiqtani Inuit Association
QC:	Qikiqtaaluk Corporation
RI:	Resolution Island
RRMC:	Royal Roads Military College
SMT:	Senior Management Team
USAF:	United States Air Force

1- INTRODUCTION

The 2006 field season at Resolution Island (RI) started on July 18th with the initial crew mobilisation. Scheduled tasks were initiated once the camp was operational. All planned activities were conducted and completed by the end of the season. The site was closed on September 6th with the departure of the sealift.

Indian and Northern Affairs Canada (INAC), in partnership with Qikiqtaaluk Corporation (QC), initiated this project in 1997 following several environmental investigations conducted by the Department of National Defence (DND), Environment Canada, the Royal Roads Military College (RRMC), and Queen's University Analytical Services Unit (ASU). QC and Qikiqtaaluk Environmental (QE) coordinated and conducted previous work focussing on mobilisation, infrastructure, settings, and environmental remediation. In 2006, 29 individuals combined their efforts to make the last season a successful one. The following major tasks were completed during the field season:

- Tier II landfill survey (initial and final);
- Tier II landfill cover finalization;
- Hydrocarbon contaminated soils excavation from former west beach POL tank pad, screening and transfer to landfarm;
- Gravel production at Lake Borrow Pit 2;
- Packaging of material and supplies for shipment to Iqaluit;
- Packaging of hazardous waste for shipment to Montreal;
- Transfer of supplies and materials to the beach staging area;
- Relocalization of the main office to the meeting room;
- Setup of the kitchen and QC's trailers at the monitoring camp;
- Demolition of the Core Camp buildings owned by INAC;
- Landfilling of demolished buildings;
- Decommissioning of roads to S1/S4 Beach and drinking water lake;
- Removing sediment from barriers at S1/S4 valley and beach;
- Landfarm tilling;
- Hauling of QC's trailers to beach and preparation for sealift;
- shutdown camp gensets and move to beach;
- 1 dry demobilization sealift (Heavy equipment, material and supplies, hazardous waste).

This document summarizes the activities carried out on site between July and September 2006. Section 2 of the report describes the activities related to the transportation of equipment and labour. Section 3 presents the demobilization activities. Section 4 presents information related to the finalization of the Tier II landfill construction and section 5 describes the others activities.

Photographs depicting fieldwork activities are presented throughout this report. The 2006 As-Built Drawings are submitted as a separate document attached to the current report.

2- TRANSPORTATION SERVICES

Each year the success of the field season relies upon various transportation services which need to be planned, coordinated, and managed. These include marine and air transport operations.

2.1- Sealift Operations

In 2006, Nunavut Eastern Arctic Shipping Inc. (NEAS) was awarded the marine shipping contract to ship to Iqaluit and Montreal various equipment and hazardous waste from the site demobilization.

Prior to the ship's arrival at RI, the beach barging area was backfilled and graded to provide a smooth working surface. Approximately 290 m^3 of screened sand was used to prepare the barging area.

The sealift arrived at Resolution Island on September 3rd. Cargo loading was carried out from Sunday 3rd in the evening until Monday 4th in the afternoon. First, the loaders were unloaded from the ship. They delivered overpack drums, sieved gravel, and activated carbon: supplies ordered by Queen's ASU and delivered by ship. After, the NEAS loaders loaded the cargo from the beach high-water mark to the barge. The cargo was then transferred from the barge to the ship. Qikiqtaaluk Environmental and QC representatives monitored all operations, and verified and signed the shipping manifest.

Photograph 2.1.: Barge loading

Approximately 4,200 m^3 (1,700 metric tonnes) of equipment and materials were shipped to Iqaluit and to Valleyfield, including the following items:

- Heavy equipment (supervac, water truck, loaders, excavators, fuel truck,

boom truck...);

- Trailers;
- Seacans;
- Generators;
- Buckets...

A copy of the NEAS transport manifest is provided in Appendix 1.

2.2- Air Transportation

Air transport services were required for crew mobilization and rotation, as well as for shipment of equipment and supplies to and from the island.

Supplies shipped to Iqaluit from Montreal by First Air were temporarily stored at the airport, before being sent to RI by helicopter and airplane.

Canadian Helicopters Ltd was awarded the contract to provide regular air transportation services using a Twin Star Helicopter. QC managed the contract and coordinated the helicopter flights from RI on a daily basis, over the duration of the field season. Flight data, such as departure and arrival times as well as flying time were logged. In 2006, a total of 124.8 hours of flying time were used on the Bell Twin Star.

Photograph 2.2.: 206 Twin Star helicopter

In addition to the helicopter services, chartered Twin Otter and Dornier Chartered flights were used to transport crew and cargo to and from the site. Chartered flights were mainly scheduled at the beginning and at the end of the field season to carry bulky materials and supplies as well as larger crews. Chartered flights were also used during the season to relieve cargo backlogs whenever the helicopter was down for several days due to bad weather. In 2006, a total of five (5) charters were used. Kenn Borek Air and Summit Air (Dornier) were contracted on an as required basis.

3- DEMOBILIZATION ACTIVITIES

3.1- Packaging of material and supplies

This activity was conducted throughout the season. All material and supplies from the warehouse, the garage, the camp, and the carpentry shop were either packaged into crates or strapped on pallets. Crates and pallets were hauled to the beach staging area with the boom truck. Most of the crates and pallets were put into the seacans.

The crates, pallets and seacans' inventory was done and communicated to INAC. The inventory of the seacans content is provided in Appendix 2. At the end of the season, the QC's trailers were also hauled to the beach staging area as well as the camp gensets. The gensets building was torn down using the excavator and buried in the camp landfill.

Photograph 3.1: Seacans loading

Photograph 3.2: Hauling of trailers to the Beach

3.2- Set up of the monitoring camp

The site training center was partially renovated into a small camp to be used for future site monitoring activities in the 2007 season and beyond. The B2 caterpillar generators were hauled from the beach area next to the training center and connected.

The center has been divided into 5 bedrooms, a small recreation room, a kitchen, a mudroom and a bathroom. The former camp's office trailer was connected to the existing building during the 2006 season by a wooden corridor in order to complete the installation.

The indoor work was completed during the 2006 season: kitchen and bedrooms setup, electrical and plumbing work.

A sewage lagoon was also built.

The monitoring camp procedures (opening and closure) as well as the generators procedures are available in the monitoring camp. They are presented in Appendix 3. Some equipment was left at Resolution Island to support future monitoring activities. Those include:

-3 ATVs and trailers inside the airstrip (A2) building
-1 ATV and trailer and one Kubota in the Radome (RD3) building
-Queen's supplies (GAC and gravel) and overpack drums in the beach warehouse (B2)
-Other overpack drums and wranglers in the Radome (RD3) building
-About 30,000 litres of diesel in the beach tanks
-About 20,000 litres of diesel at the helipad
-One sea can

Photograph 3.3.: Former QC's office

Photograph 3.4.: Bedrooms

Photograph 3.5.: Mudroom and camp procedures

Photograph 3.6.: Sewage lagoon

3.3- Demolition and landfilling of the core camp buildings

Before initiating the demolition of the buildings, the following activities were done:

- lights were disconnected, batteries removed;
- furnace lines as well as water lines were disconnected and flushed;
- roofs were removed

All the core camp buildings were dismantled. The only remaining buildings left at Resolution Island are owned by the Government of Nunavut. Those are:

- N2 building, corridor and dishes,
- S18, Garage,
- S17, Warehouse,
- S16, Former cold storage (rec room),
- RD3, Radome building,
- S9 and S10, Officer's quarters and mess,
- A2, Airstrip building,
- B2, Beach warehouse building,
- Radio Hill building,
- S20, Monitoring camp.

The core camp buildings were torn down using the excavator and the grapple. They were hauled to the camp landfill using the D6. 1700 m^3 of type 2 soil from the Lake borrow pit 2 were placed on top as cover material. The sewage lagoon line and the sewage lagoon were also dismantled.

Photograph 3.7.: Gravel stockpiles

Photograph 3.8.: Core camp demolition

Photograph 3.9.: Core camp demolition

Photograph 3.10.: Camp landfill

Photograph 3.11.: Camp landfill completion

3.4- Roads decommissioning

The following roads were decommissioned:

- Road to Pit 7;
- Road to New Fresh Water Lake;
- Road to S1/S4 beach;
- Road to Water Lake Pit 2.

The excavator and the grapple were used for the landscaping. The culverts were removed and buried in the camp landfill.

Photographs 3.12 to 3.15.: Road decommissioning

4- TIER II LANDFILL

The Tier II landfill construction was completed during the 2006 season.

The chronology of the lanfdill's construction is given below:

July 21st	Initial survey
August 8th	Confirmation by UMA that 455 m^3 of type 1 was needed on two areas: south east and south west corners; feathering of these areas with type 2
August 5th to August 10th	Hauling of material (type 1 and 2) to the landfill
August 17th	Final survey
August 18th	UMA approved the completion of the Tier II landfill

The Type 1 and Type 2 material was quarried from Lake Borrow Pit 2. The following heavy equipment were mobilized for this activity: excavator, grapple, 2 rock trucks, dozer.

Considering the results of the survey dated July 21, UMA Engineering Ltd. required additional fill, type 1. Qikiqtaaluk Corporation (QC) was provided with a final drawing "Figure 26 – Additional Fill Requirements" on August 3rd (Presented in Appendix 4).

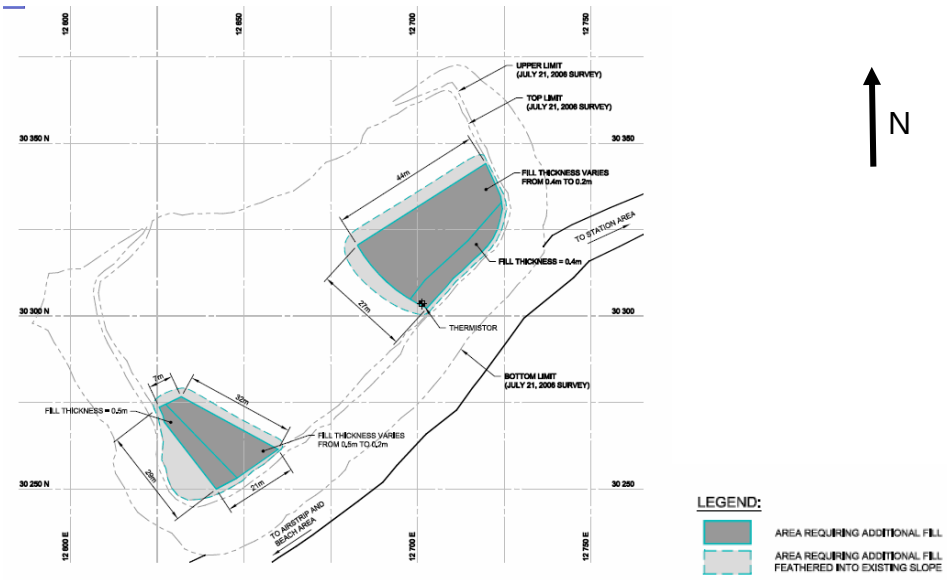


Figure 4.1: Figure 26 – Additional Fill Requirements

QC mobilized its staff (heavy equipment operators, surveyor and engineer) and heavy equipment (two rock trucks, one excavator and one grapple) to fulfill these requirements.

For this purpose the following tasks were undertaken:

1. Localization of Type 1 sources (Site Superintendent and QE consultants),
2. Stockpiling of Type 1 while waiting for final requirements and drawings (2 operators using the excavator and the grapple),
3. Demarcation of the areas needing additional fill as per the Figure 26 (QE consultant),
4. Hauling of Type 1 and Type 2 to the landfill (2 operators, 2 rock trucks),
5. Spreading of Type 1 and type 2 (excavator).

4.1- Clean Fill Production

Table 4.1.: Clean fill production volumes

Area	Surface	Theoretical Volume of type 1
SE area: 0,4 m thickness	185 m^2	74 m^3
SE area : from 0,4 m to 0,2 m thickness	700 m^2	210 m^3
SW corner: 0.5 m thickness	145 m^2	73 m^3
SW corner : from 0.5 m to 0.2 m thickness	275 m^2	97m^3
		455 m^3

In addition to the type 1, some type 2 was used for the areas requiring additional fill feathered into existing slopes.

The main source of Type 1 (large rocks) used were:

- Old Water Lake pit 2,
- New fresh water lake road decommissioning,

Type 2 fill was produced by passing fill from borrow pits through a grizzly with a six inch (6") spacing.
The Lake Borrow Pit #2 (Old Water Lake), identified on the 2005 As-Built Drawings, was used during the 2006 season. Approximately 2,900 m^3 of fill was quarried from July 22 to August 18.

4.2- Landfill Construction

You'll find below an illustrated description of the Tier II landfill completion initiated on August 1st. The stockpiling of type 1 was initiated on August 1st.

Photograph 4.1: Type 1 Stockpiling

Photograph 4.2: Type 1 Stockpiling

To control the thicknesses, grade stakes were used (August 4th and 5th).

Photographs 4.3 to 4.5: Demarcation of the areas

South West area:

The hauling of type 1 to the landfill was initiated on August 5th. 26 loads of type 1 (D250 Rock trucks) were needed.

Photographs 4.6 to 4.8: Hauling of type 1 to the landfill

The spreading of type 1 was initiated on August 6th using the excavator and was completed on August 7th.



Photographs 4.9 to 4.11: Spreading of type 1

The hauling and spreading of type 2 for feathering was accomplished on August 7th which completed the additional work on the SW corner area (14 loads).






Photographs 4.12 to 4.17: Feathering (SW corner)

South East Area:

The hauling of type 1 to the SE area was initiated on August 7th and completed on August 10th. For the SE corner, 39 loads of type 1 (D250 Rock trucks) were needed.


Photographs 4.18 to 4.19: Spreading of type 1

The hauling and spreading of type 2 for feathering was accomplished on August 10th which completed the additional work on the SE corner area. 13 loads were needed.



Photographs 4.20 to 4.22: Feathering

The following table summarizes the volume of material hauled to the landfill from August 5th to August 10th.

Table 4.2.: Volumes of material

Area	Surface (m^2)	Number of loads type 1	Volume of type 1 (m^3)**	Number of loads type 2	Volume of type 2 (m^3)**
South East corner: 0,4 m thickness	185	26	182 to 208	14	168
South East corner: 0,4 to 0,2 m thickness	700				
South West corner: 0,5 m thickness	145	39	273 to 312	13	144
South West corner: 0,5 to 0,2 m thickness	275				
TOTAL		**65**	**455 to 520**	**27**	**312**

*Assuming that a load of type 1 is between 7 m^3 and 8 m^3.
** Assuming that a load of type 2 is 12 m^3

Photographs 4.23 to 4.26: Landfill completed

As mentioned above the design engineering team provided the final approval for the work one day after the last survey was conducted.

5- OTHER ACTIVITIES

Other activities planned and carried out during the 2006 field season included:

- Excavation of light hydrocarbon contaminated soil for landfarming,
- Packaging of hazardous waste,
- Assistance to ASU (landfarm tilling, Quatrex wranglers hauling),
- Removing of sediment from ASU barriers at S1/S4 Valley and Beach,
- Road maintenance.

The following sections describe these activities in detail.

5.1. Excavation of light hydrocarbon contaminated soil

72 m^3 of light hydrocarbon soil were excavated at the beach area from underneath the former west beach POL tank, screened to 2'' and hauled to the landfarm. These soils were placed on top of the landfarm as per Queen's directions.

Photograph 5.1.: HC contaminated soil excavation

5.2. Packaging of hazardous waste

The following hazardous waste remaining on site were packaged, labelled and shipped to Ecolocycle, St Hyacinthe, QC., a facility authorized to coordinate the disposal of all remaining waste.

Table 5.1: Hazardous waste

No. of containers	Inner contents
1 drum overpack	Toxic solid, corrosive inorganic: Phenol, mercury

1 drum overpack	Aerosol
1 drum	Flammable liquid: fuel
1 drum	Fuel aviation engine
1 drum	Sulfuric acid
1 wrangler quatrex	Paint related material
1 wrangler quatrex	Batterie, wet filled with acid
24 drums	Waste oil
2 drums	Waste glycol
1 drum	Waste oil filters
10 wranglers quatrex	Contaminated soils and debris

Photograph 5.2.: Hazardous waste packaging

This work was coordinated by Stabilis (Jacques Dion).

5.3- ASU's assistance

Assistance was given to ASU for the landfarm tilling (three (3) events) and for the hauling of the Quatrex wranglers (sediment from the S1/S4 Valley and Beach) to the B2 building.

Photograph 5.3.: ASU's wranglers

Photograph 5.4.: Landfarm tilling

- Assistance to ASU was also provided to offload and load cargo flight filled with Queen's material and gravel (sieved gravel and activated carbon).
- QC also coordinated the shipment and offloading of Queen's supplies.

5.4. Sediment from S1/S4 Valley and Beach barriers

QC purchased Quatrex wranglers at the beginning of the season. Three (3) wranglers were filled with sediment from the S1/S4 Valley barrier and were hauled to the B2 Building (an excavator, a loader and the boom truck were required). Five (5) wranglers were filled with sediment from the S1/S4 Beach barrier and were slung to the B2 Building using the helicopter.

5.5. Road maintenance

Approximately six (6) days were required; only minor road repairs were needed. Due to late arrival on site (July 18), no snow removal was required this year.

Regular road maintenance was also required due to the normal wear of the roads caused by vehicle and heavy equipment traffic. Generally, the roads were simply graded as needed, and the larger holes were backfilled prior to the grading operations. During the 2006 season, approximately 860 m^3 of gravel was used for all minor and major road repairs as well as for regular maintenance.

5.6. Management Committee

The Contribution Agreement signed between QC and INAC includes provisions for the establishment of a management team. The Project Management Team (PMT) has the responsibility of monitoring the progression of the work, of holding project meetings, and of reporting to the Senior Management Team (SMT). The following individuals and/or organizations were part of the 2005 PMT:

- INAC - Lou Spagnuolo
- Scientific Adviser - Queen's University ASU (Allison Rutter)
- Site Superintendent - Harry Flaherty
- On-site Emergency Medical Technician/ Health & Safety Officer - Andrew Bullion
- On-site Financial Comptroller – Rosemary Ipeelie
- Heavy Equipment Supervisor - Joe Erkidjuk
- Technical Adviser - Jacques Dion (Stabilis Inc.)
- Project Engineer - Qikiqtaaluk Environmental Inc. (Philippe Simon, Céline Mercier)

5.7- Project Permitting

Several permits were obtained prior to the 2005 field season. Some of these permits require yearly reporting to various agencies. The main field permits are the land use permit (INAC and Nunavut Impact Review Board - NIRB), the water license (Nunavut Water Board - NWB), and the quarrying permits (INAC).

Land Use Permit

A permit application was filed in the fall of 2003. The new permit (N2003X0038), granted in February 2004 is now set to expire in February 2007. A copy of the permit is presented in Appendix 5.

Quarrying Permit

A permit application for quarrying sand and gravel from one (1) borrow pit on RI was submitted to INAC before the field season. The Quarrying Permit expires in January 2007. The location of the borrow pit is presented in the 2006 As-Built Drawings.

A copy of the quarrying permit is presented in Appendix 6. The authorized volume of gravel to be quarried from the borrow pit was 5,000 m^3. The volume of gravel quarried from the borrow pit (2,900 m^3) is below the maximum allowed quantity.

The gravel production activity is presented in the following table.

Table 5.2: Lake Borrow Pit 2 Volumes

Road maintenance	864 m^3
Camp	1692 m^3
Tier II Landfill	396 m^3
Beach dump	336 m^3
Beach barging area	288 m^3
TOTAL quarried TOTAL authorized	2900 m^3 5000 m^3

Water Licence

The original water licence issued in 1998 for the RI clean up project expired in 2003. A new licence (NWB5RES0308) was issued in August 2003 and is set to expire in 5 years (*i.e.,* August 2008). This licence provides various conditions related to the following operations:

- Water use (20 m^3/day);
- Sewage disposal;
- Solid waste disposal;
- Undertaking;
- Emergency response planning;
- Modifications;
- Abandonment and restoration; and,
- Monitoring programs.

An annual report is to be presented to NWB after completion of the field season. Information such as the volume of freshwater used, and the quantities of sewage water and solid waste discharged during the season will be included in this report. ASU's analytical results of water sampled from the drinking water lake are also reported.

6- CONCLUSIONS AND RECOMMENDATIONS

This final section summarizes the main information presented in the previous sections of the report.

The 2006 field season was essentially dedicated to complete the Tier II landfill, to complete the small camp set up to be used for future site monitoring activities, and to package and demobilize all assets.

Tier II Landfill

Following the results of the survey done at the beginning of the season, additional fill was required.

A total of 2,900 m^3 of gravel were quarried during the season from the Borrow Pit 2. From this amount, 300 m^3 were used for the construction of the landfill: the gravel was used for the feathering of the two areas needing backfilling.

In addition, 450 to 520 m^3 of type 1 (rip rap) were used for the construction of the landfill. Type 1 was mainly provided by the Borrow Pit 2 and road decommissioning.

A final survey was done and the final approval of the Tier II landfill completion was given by UMA/EBA on August 18th.

Demobilization

Tasks related to the demobilization were the following:

- Packaging of material and supplies,
- Set up of the monitoring camp,
- Demolition and landfilling of the core camp buildings,
- Road decommissioning.

All these activities were conducted successfully. All the material and supplies were loaded on the sealift. An inventory of all the items and equipment was done.

Other Activities

Various other planned activities were carried out during the season, including:

- Excavation of light hydrocarbon contaminated soil for landfarming,
- Packaging of hazardous waste,
- Renovation of the training center,
- Assistance to ASU (landfarm tilling, Quatrex wranglers hauling),
- Removing of sediment from ASU barriers at S1/S4 Valley and Beach,
- Road maintenance,

The Resolution Island 2006 field season constituted the final effort to complete this challenging project. Throughout this project, Qikiqtaaluk Corporation has successfully fulfilled INAC's objectives regarding site compliance, health and safety and training. This project has also allowed Qikiqtaaluk Corporation to consistently increase the Inuit beneficiaries' participation and employment in all phases of this multi disciplinary project.

Appendix 1

Cargo Transport Manifests

NUNAVUT EASTERN ARCTIC SHIPPING INC
PORT OF MONTREAL BUILDING
CITÉ DU HAVRE
WING NO 2
OFFICE 2060
MONTREAL (QUEBEC) CANADA, H3C 3R5
PHONE: (514) 597-0186 FAX: (514) 523-7875

Invoice No.: IN000009658
Page: 1
Date: 2006 / 09 / 08

Sold To:

QIKIQTAALUK CORPORATION
P.O. BOX 1228
IQALUIT, NUNAVUT
X0A 0H0 CANADA

Attention: HARRY FLAHERTY

Departure Date: 2006 / 09 / 03
Ship: AIVIK-
Voyage: 2006 A2L
Loading Port Name: Resolution Island
Via Port Name:
Unloading Port Name: Iqaluit
Consignee Name: QIKIQTAALUK CORP

Booking No.	Customer No.	Contract No.	Payment Terms
05806IQA(RSI)	06058	06-058	

Description	Delivery	Weight	Volume	Revenue Ton	U/M	Rate	Amount
Dock Receipt #: 23117							
Parcel							
89714-BOOM TRUCK	No	1	90.31 *	36,124	RT	180.000 $	6 502,32$
89727-CUVE METAL	No	1	22.69 *	9,076	RT	180.000 $	1 633,68$
89726-CUVE METAL	No	1	1.01 *	0,404	RT	180.000 $	72,72$
89722-FORD TRUCK	No	1	32.68 *	13,072	RT	180.000 $	2 352,96$
89713-FUEL TRUCK	No	1	74.36 *	29,744	RT	180.000 $	5 353,92$
89728-GENERATRICE	No	1	20.00 *	8,000	RT	180.000 $	1 440,00$
89725-GENERATRICE	No	1	27.40 *	10,960	RT	180.000 $	1 972,80$
89721-GM TRUCK	No	1	34.30 *	13,720	RT	180.000 $	2 469,60$
89723-GMC SUBURBAN	No	1	30.41 *	12,164	RT	180.000 $	2 189,52$
89724-GROUND HEATHER	No	1	13.84 *	5,536	RT	180.000 $	996,48$
89720A-SCISOR LIFT	No	1	25.95 *	10,380	RT	180.000 $	1 868,40$
89712-WATER TRUCK	No	1	66.04 *	26,416	RT	180.000 $	4 754,88$
		12	438,99	175,596			31 607,28$
Dock Receipt #: 23118							
Parcel							
89735-BOBCAT	No	1	12.33 *	4,932	RT	180.000 $	887,76$
89732-BUCKET	No	1	5.60 *	2,240	RT	180.000 $	403,20$
89731-BUCKET	No	1	8.06 *	3,224	RT	180.000 $	580,32$
89772-BUCKET	No	1	3.30 *	1,320	RT	180.000 $	237,60$
89737-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89736-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89738-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89730-GENERATOR	No	1	7.50 *	3,000	RT	180.000 $	540,00$

Continued on next page...

NUNAVUT EASTERN ARCTIC SHIPPING INC
PORT OF MONTREAL BUILDING
CITÉ DU HAVRE
WING NO 2
OFFICE 2060
MONTREAL (QUEBEC) CANADA, H3C 3R5
PHONE: (514) 597-0186 FAX: (514) 523-7875

Invoice No.: IN000009658
Page: 2
Date: 2006 / 09 / 08

Sold To:

QIKIQTAALUK CORPORATION
P.O. BOX 1228
IQALUIT, NUNAVUT
X0A 0H0 CANADA

Attention: HARRY FLAHERTY

Departure Date: 2006 / 09 / 03
Ship: AIVIK-
Voyage: 2006 A2L
Loading Port Name: Resolution Island
Via Port Name:
Unloading Port Name: Iqaluit
Consignee Name: QIKIQTAALUK CORP

Booking No.	Customer No.	Contract No.	Payment Terms
05806IQA(RSI)	06058	06-058	

Description	Delivery	Weight	Volume	Revenue Ton	U/M	Rate	Amount
89729-GENERATOR	No	1	7.69 *	3,076	RT	180.000 $	553,68$
89734-TANK	No	1	2.73 *	1,092	RT	180.000 $	196,56$
89771-TOIT	No	1	2.13 *	0,852	RT	180.000 $	153,36$
89733-TRAILER & PUMP	No	1	10.15 *	4,060	RT	180.000 $	730,80$
		12	65,61	26,244			4 723,92$
Dock Receipt #: 23119							
Parcel							
89741-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89744-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89746-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89740-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89742-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89743-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89739-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89745A-CRATE	No	1	2.04 *	0,816	RT	180.000 $	146,88$
89748-PALLET	No	1	0.91 *	0,364	RT	180.000 $	65,52$
89747-PALLET	No	1	1.58 *	0,632	RT	180.000 $	113,76$
89750A-TRAILER BOOM	No	1	181.36 *	72,544	RT	180.000 $	13 057,92$
		11	200,17	80,068			14 412,24$
Dock Receipt #: 23120							
Parcel							
440022/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
832004/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
00950/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
551310/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$

Continued on next page...

NUNAVUT EASTERN ARCTIC SHIPPING INC
PORT OF MONTREAL BUILDING
CITÉ DU HAVRE
WING NO 2
OFFICE 2060
MONTREAL (QUEBEC) CANADA, H3C 3R5
PHONE: (514) 597-0186 FAX: (514) 523-7875

Invoice No.: IN000009658
Page: 3
Date: 2006 / 09 / 08

Sold To:

QIKIQTAALUK CORPORATION
P.O. BOX 1228
IQALUIT, NUNAVUT
X0A 0H0 CANADA

Attention: HARRY FLAHERTY

Departure Date: 2006 / 09 / 03
Ship: AIVIK-
Voyage: 2006 A2L
Loading Port Name: Resolution Island
Via Port Name:
Unloading Port Name: Iqaluit
Consignee Name: QIKIQTAALUK CORP

Booking No.	Customer No.	Contract No.	Payment Terms
05806IQA(RSI)	06058	06-058	

Description	Delivery	Weight	Volume	Revenue Ton	U/M	Rate	Amount
382804/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
970002/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
833113-1/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
970001-6/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
36877-7/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
044597-6/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
038895-8/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
33187-0/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
		60,000	462,12	184,848			33 272,64$
Dock Receipt #: 23121							
Parcel							
89769-BOBCAT	No	1	15.15 *	6,060	RT	180.000 $	1 090,80$
89762-BOILER	No	1	5.16 *	2,064	RT	180.000 $	371,52$
89763-BOILER	No	1	4.73 *	1,892	RT	180.000 $	340,56$
89761-CYCLANATAR	No	1	5.41 *	2,164	RT	180.000 $	389,52$
89764-GENERATRICE	No	1	9.87 *	3,948	RT	180.000 $	710,64$
89765-GENERATRICE	No	1	6.32 *	2,528	RT	180.000 $	455,04$
89770-GENERATRICE	No	1	7.97 *	3,188	RT	180.000 $	573,84$
89767-SOUDEUSE	No	1	5.84 *	2,336	RT	180.000 $	420,48$
89760-SOUDEUSE	No	1	6.00 *	2,400	RT	180.000 $	432,00$
89768-SOUDEUSE	No	1	3.49 *	1,396	RT	180.000 $	251,28$
89766-SOUDEUSE	No	1	7.34 *	2,936	RT	180.000 $	528,48$
89752-TRAILER	No	1	18.93 *	7,572	RT	180.000 $	1 362,96$
		12	96,21	38,484			6 927,12$
Dock Receipt #: 23122							

Continued on next page...

NUNAVUT EASTERN ARCTIC SHIPPING INC
PORT OF MONTREAL BUILDING
CITÉ DU HAVRE
WING NO 2
OFFICE 2060
MONTREAL (QUEBEC) CANADA, H3C 3R5
PHONE: (514) 597-0186 FAX: (514) 523-7875

Invoice No.: IN000009658
Page: 4
Date: 2006 / 09 / 08

Sold To:

QIKIQTAALUK CORPORATION
P.O. BOX 1228
IQALUIT, NUNAVUT
X0A 0H0 CANADA

Attention: HARRY FLAHERTY

Departure Date: 2006 / 09 / 03
Ship: AIVIK-
Voyage: 2006 A2L
Loading Port Name: Resolution Island
Via Port Name:
Unloading Port Name: Iqaluit
Consignee Name: QIKIQTAALUK CORP

Booking No.	Customer No.	Contract No.	Payment Terms
05806IQA(RSI)	06058	06-058	

Description	Delivery	Weight	Volume	Revenue Ton	U/M	Rate	Amount
Parcel							
89760A-AIRTRACK & COMPRESSOR	No	1	89.26 *	35,704	RT	180.000 $	6 426,72$
89759-EXCAVATRICE	No	1	94.08 *	37,632	RT	180.000 $	6 773,76$
89757-FLOAT - CONT. 40'	No	1	177.89 *	71,156	RT	180.000 $	12 808,08$
89758-FORD BLANC	No	1	36.80 *	14,720	RT	180.000 $	2 649,60$
89718-PALLET OIL	No	1	1.60 *	0,640	RT	180.000 $	115,20$
89716-PALLET OIL	No	1	1.56 *	0,624	RT	180.000 $	112,32$
89711-PALLET OIL	No	1	1.76 *	0,704	RT	180.000 $	126,72$
89719-PALLET OIL	No	1	1.36 *	0,544	RT	180.000 $	97,92$
89755-SUPERVAC	No	1	110.24 *	44,096	RT	180.000 $	7 937,28$
89753-TAMIS	No	1	117.04 *	46,816	RT	180.000 $	8 426,88$
89754-TAMIS	No	1	117.04 *	46,816	RT	180.000 $	8 426,88$
89756-TRACTEUR CHENILLE	No	1	104.72 *	41,888	RT	180.000 $	7 539,84$
		12	853,35	341,340			61 441,20$
Dock Receipt #: 23123							
Parcel							
89708-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89703-PALLET OIL	No	1	1.65 *	0,660	RT	180.000 $	118,80$
89705-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89706-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89707-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89709-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89715-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89717-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89710A-PALLET OIL	No	1	1.76 *	0,704	RT	180.000 $	126,72$

Continued on next page...

NUNAVUT EASTERN ARCTIC SHIPPING INC
PORT OF MONTREAL BUILDING
CITÉ DU HAVRE
WING NO 2
OFFICE 2060
MONTREAL (QUEBEC) CANADA, H3C 3R5
PHONE: (514) 597-0186 FAX: (514) 523-7875

Invoice No.: IN000009658
Page: 5
Date: 2006 / 09 / 08

Sold To:

QIKIQTAALUK CORPORATION
P.O. BOX 1228
IQALUIT, NUNAVUT
X0A 0H0 CANADA

Attention: HARRY FLAHERTY

Departure Date: 2006 / 09 / 03
Ship: AIVIK-
Voyage: 2006 A2L
Loading Port Name: Resolution Island
Via Port Name:
Unloading Port Name: Iqaluit
Consignee Name: QIKIQTAALUK CORP

Booking No.	Customer No.	Contract No.	Payment Terms
05806IQA(RSI)	06058	06-058	

Description	Delivery	Weight	Volume	Revenue Ton	U/M	Rate	Amount
89701-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89702-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89704-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
		12	21,11	8,444			1 519,92$
Dock Receipt #: 23124							
Parcel							
0044/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
224144-8/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
700019/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
298753-9/A2L-CONTAINER 20'	No	5,000	38.51 *	15,404	RT	180.000 $	2 772,72$
89810-FORD ROUGE	No	1	29.58 *	11,832	RT	180.000 $	2 129,76$
89700-PALLET OIL	No	1	1.77 *	0,708	RT	180.000 $	127,44$
89699-PALLET OIL	No	1	1.61 *	0,644	RT	180.000 $	115,92$
		20,003	187,00	74,800			13 464,00$
Dock Receipt #: 23125							
Parcel							
89914-EXCAVATRICE	No	1	71.93 *	28,772	RT	180.000 $	5 178,96$
89910-LOADER	No	1	87.73 *	35,092	RT	180.000 $	6 316,56$
89904-LOADER	No	1	51.24 *	20,496	RT	180.000 $	3 689,28$
89916-LOADER	No	1	74.14 *	29,656	RT	180.000 $	5 338,08$
89906-ROULOTTE	No	1	195.30 *	78,120	RT	180.000 $	14 061,60$
89907A-ROULOTTE	No	1	175.57 *	70,228	RT	180.000 $	12 641,04$
89908A-ROULOTTE	No	1	289.80 *	115,920	RT	180.000 $	20 865,60$
89698-ROULOTTE	No	1	94.40 *	37,760	RT	180.000 $	6 796,80$
89909-ROULOTTE	No	1	294.03 *	117,612	RT	180.000 $	21 170,16$

Continued on next page...

NUNAVUT EASTERN ARCTIC SHIPPING INC
PORT OF MONTREAL BUILDING
CITÉ DU HAVRE
WING NO 2
OFFICE 2060
MONTREAL (QUEBEC) CANADA, H3C 3R5
PHONE: (514) 597-0186 FAX: (514) 523-7875

Invoice No.: IN000009658
Page: 6
Date: 2006 / 09 / 08

Sold To:

QIKIQTAALUK CORPORATION
P.O. BOX 1228
IQALUIT, NUNAVUT
X0A 0H0 CANADA

Attention: HARRY FLAHERTY

Departure Date: 2006 / 09 / 03
Ship: AIVIK-
Voyage: 2006 A2L
Loading Port Name: Resolution Island
Via Port Name:
Unloading Port Name: Iqaluit
Consignee Name: QIKIQTAALUK CORP

Booking No.	Customer No.	Contract No.	Payment Terms
05806IQA(RSI)	06058	06-058	

Description	Delivery	Weight	Volume	Revenue Ton	U/M	Rate	Amount
89905-TRACTEUR CHENILLE	No	1	78.27 *	31,308	RT	180.000 $	5 635,44$
89918A-TRUCK-CAT	No	1	113.32 *	45,328	RT	180.000 $	8 159,04$
89917-TRUCK-CAT	No	1	112.22 *	44,888	RT	180.000 $	8 079,84$
		12	1 637,95	655,180			117 932,40$
Dock Receipt #: 23126							
Parcel							
89695-BOOM TRUCK	No	1	40.59 *	16,236	RT	180.000 $	2 922,48$
89694-CONVOYEUR	No	1	126.17 *	50,468	RT	180.000 $	9 084,24$
069-CYL. OXYGEN & ACETYLEN	No	1	2.63 *	1,052	RT	180.000 $	189,36$
89693A-EXCAVATRICE	No	1	104.38 *	41,752	RT	180.000 $	7 515,36$
89696-FORD AVANTAGE	No	1	22.06 *	8,824	RT	180.000 $	1 588,32$
		5	295,83	118,332			21 299,76$
DSMGCC/CCGMSS 0.40 %		0	0.00	1,000	UN	1 226.400 $	1 226,40$
TOTAL :		**80,091**	**4 258,34**	1 704,336			307 826,88$

Freights Total Amount:	306,600.48 $
Deliveries To The Site Total Amount:	0.00 $
Insurances Total Amount:	0.00 $

Sub Total	307,826.88$
G.S.T.	18 469,61$
Q.S.T.	0,00$
Total Amount	326,296.49$

G.S.T. No: R142155951
Q.S.T. No: 1020712356

Invoice

Appendix 2

Seacans content inventory

SEACAN	CONTENT
1 3828044	Crate 6
	Crate 2
	Crate 15
	Crate 1
	Crate 14
	Crate 36
	2 rolls geotextile
	Crate 37
	Crate 38
	Boxes, 8, 10, 13, 16, 17, 18, 19, 20
	Crate 16
	3 lenghs 10" vaccuum hose, 3304
	short black crate
2 9700012	Crate 32
	Crate 34
	Crate 30
	Crate 4
	Crate 9
	Crate 11
	Crate 31
	Crate 7
	Crate 35
	Garage equipment
	Herman Nelson
	Ripper 325B
3 8331131	welding fume vacuum
	eagle compressor
	steamer MIT-M corporation
	Crate 47 DIAND tool crib tools
	tire machine B010000378 John Bean
	Crate 42: mixer slicer
	crate 48: ssorted plumbing supplies
	crate 49: band saw SN R9974S, table saw SN K9950
	crate 43: assorted plumbing supplies, silver box with computers

8 0388958	double axle ATV trailer B#01026
	Resolution Island Project Seacans Inventory 2008 single axle ATV trailer B#0733
	single axle ATV trailer B#01017
	single axle ATV trailer B#0885
	Double axle ATV trailer B#0745
	single axle ATV trailer × 2 without numbers
	CAT support AS part # 100-8961 × 1 for D250
	ROD A for IT24 part # 9T-7029 × 1
	2 × Rod A for CAT
	silver box: weather station
9 832004	absorbents
10 9700950	Big bear: JY43HNNORA71292 Big Bear: JY43HNNORA134579 Honda: 478TE152XTA802741 Yamaha: JY43HNNORA171293 Honda: 478TE1523SA700163
11 blue seacan open top	Tires
12 blue open top	to complete
13 97000019	kitchen supplies
	furnace BLACKGOLD
	shovels, brooms
14	repeater system
	recreational equipment (pinp pong table...)
15	Furniture
	warehouse strapping equipment

4 9700016	screener screens
	conveyor belt
	Resolution Island Project 2006 ripper attachment
	Crate 10
	beddings
	garage equipment
	compressor B000000757
	ground heater hose
	differential crate 20
	strapping 26
	flower pots bags
	various sizes hydraulic hoses
	herman Nelson
	plasma cutter

5 0368777	Maytag washer + 2 dryers
	freezer SN 08327099 Danby × 2
	Refridgerators Whirpool × 2
	silver box: computers
	crate 35: fire fighting equipment
	crate 5: pick up truck parts
	crate 49: garage equipment
	crate 40: CAT parts link, exhaust pieces for D250, rollers, cutting edge, hydraulic hoses, glass
	crate 44: assorted plumbing supplies
	crate 50: assorted beddings
	crate 46: assorted plumbing supplies
	crate 51: QC crate = water pump, gear oil, blowers, long life anti-freeze, 2 stroke oil
	crate 47: QC crate = crate of flower pot bags

6 0331870	yellow storage container
	fork lift boom
	drill press B 0762 Westward
	Hydraulic shop press 25 T, SN = 0511AF07355
	ground heater hose
	crate 41: tool crib tools
	pallet and flower pot bags
	strapping
	Globe mixer dough mixer, SN=7210569, Model=SP20 110-60-1
	step ladder

7 0445976	Maytag washers × 2 SN = 010000361
	Model Mat 13MNAAW, SN = 373362427AX26362078ZH
	Maytag dryers Model MDE16MNAZW SN = 27882160WW (INAC = 010000363)
	Blue genset SN = E23874-14-T-1
	Steel plate 1" 4×6 and Steel plate 1/2" 3´3´3

Appendix 3

Procedures for the monitoring camp

RESOLUTION ISLAND

Resolution Island, Nunavut

Monitoring Camp Opening Procedures

Drinking Water and hot water tank

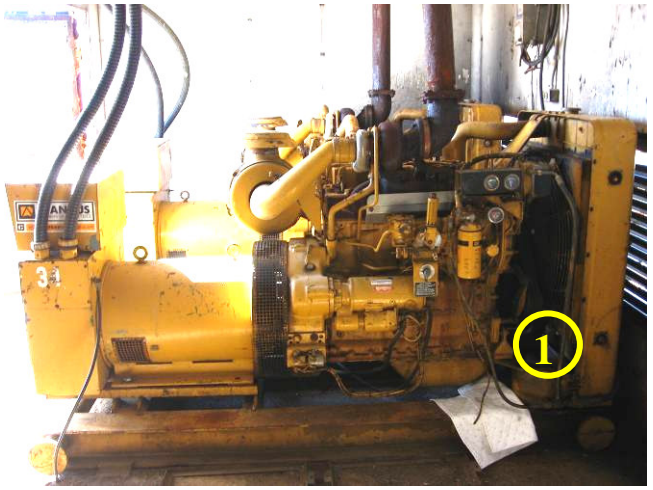
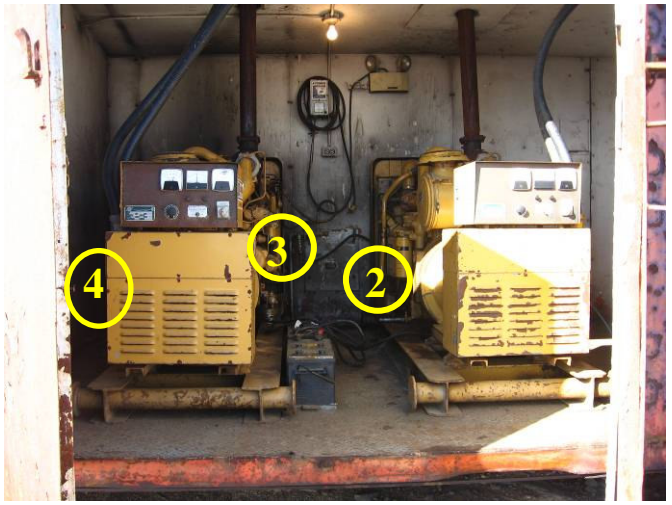
1. Connect 2" hose to the main tank's output (that line should already be connected to the main camp's water line)
2. Get water at the water lake (ATV, trailer and tank)
3. Bring a pic or an axe to break ice on fresh water lake and a bucket to prime the pump
4. Fill up the water tank
5. Start hot water heater. **Refer to camp water opening procedures for details**

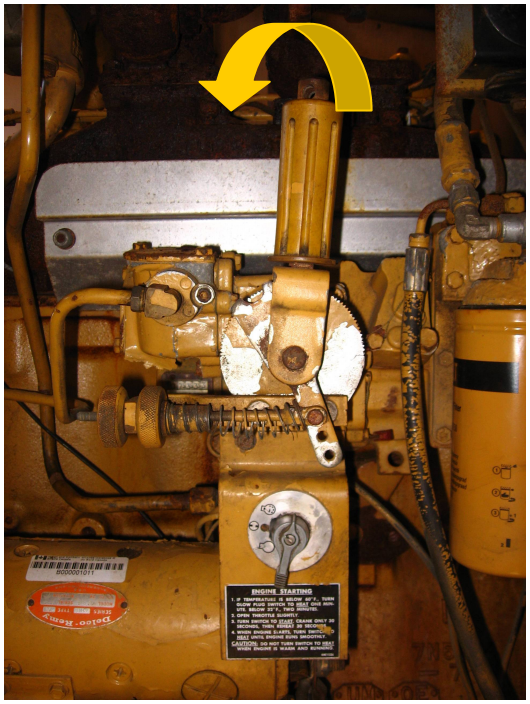
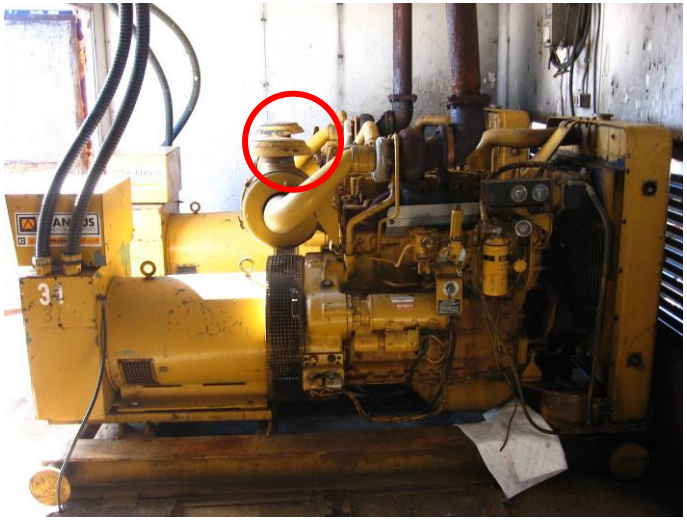
See below the procedure for the generator

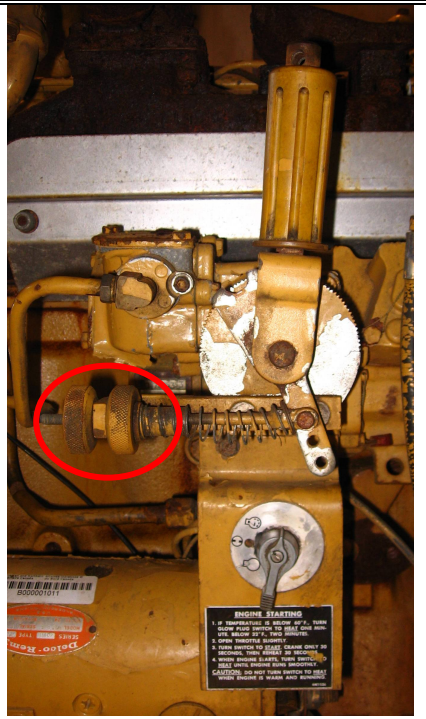
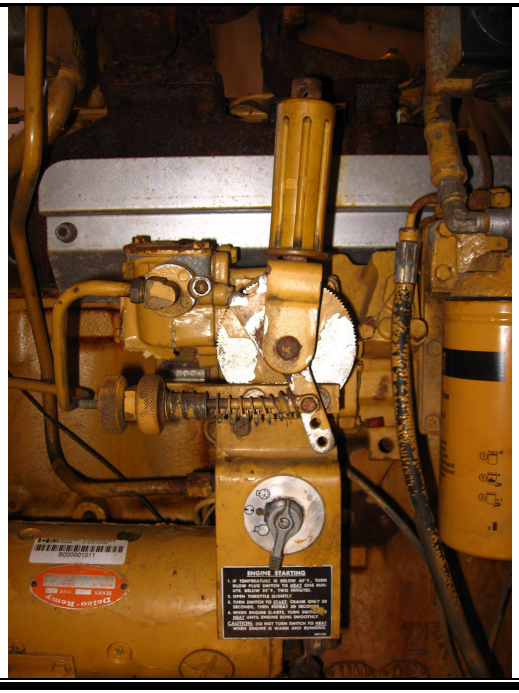
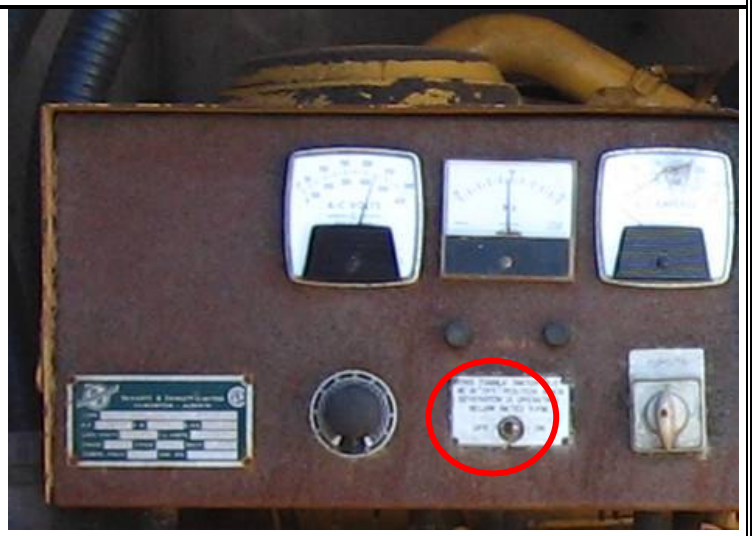
PROCEDURES Main generator

There are two (2) generators: 1 and 2.

STAGES	ILLUSTRATIONS
1. Check the oil level (gauge on the side of the generator; two positions: hot and cold) and green oil level; if necessary, add some (containers in the generator house)	 
2. Clean and brush the batteries poles, then connect	

3. Open the four valves	 
4. Open the fuel valve; pump it to fill up the tank (right picture) then close the valve	 

5. Turn the yellow handle half way left then turn the key below to the right; wait for 15 seconds and turn the key to the left. The generator should start; if not repeat the stages 4 and 5.	
6. If the generator does not start after 2 attempts, spray some starting fluid (Kleen) where indicated	

7. After 10 min, turn the yellow handle full way left. Required frequency = 60 Hz; the frequency is adjusted by turning the two (2) rings.		
8. To switch from generator 2 to generator 1 after 10 min, turn the yellow handle half way to the right and put the switch on off		

9. to turn the generator off, turn the yellow handle half way and then all way back; disconnect the batteries after the season	

RESOLUTION ISLAND PROJECT

Resolution Island, Nunavut

Monitoring Camp Opening Procedures: Drinking Water start up

	Hot water tank	**Checklist**
1.	Make sure the drain valve is closed	
2.	Fill hot water tank with water	
3.	Turn ON the water heater breaker (open electrical switches)	

	Washroom	**Checklist**
1.	Make sure the drain valve underneath the sink is closed and turn off taps	
2.	Reconnect the toilet water supply valve compression nuts	
3.	Open toilet water supply valve	
4.	Reconnect the shower taps fittings	

	Kitchen sink	**Checklist**
1.	Reconnect taps fittings and make sure taps are turned off	

	Pump system and pressure builder start up (see flowsheet)	**Checklist**
1.	Close drain valve and camp line valve (have all other system valves open)	
2.	Open main water valve	

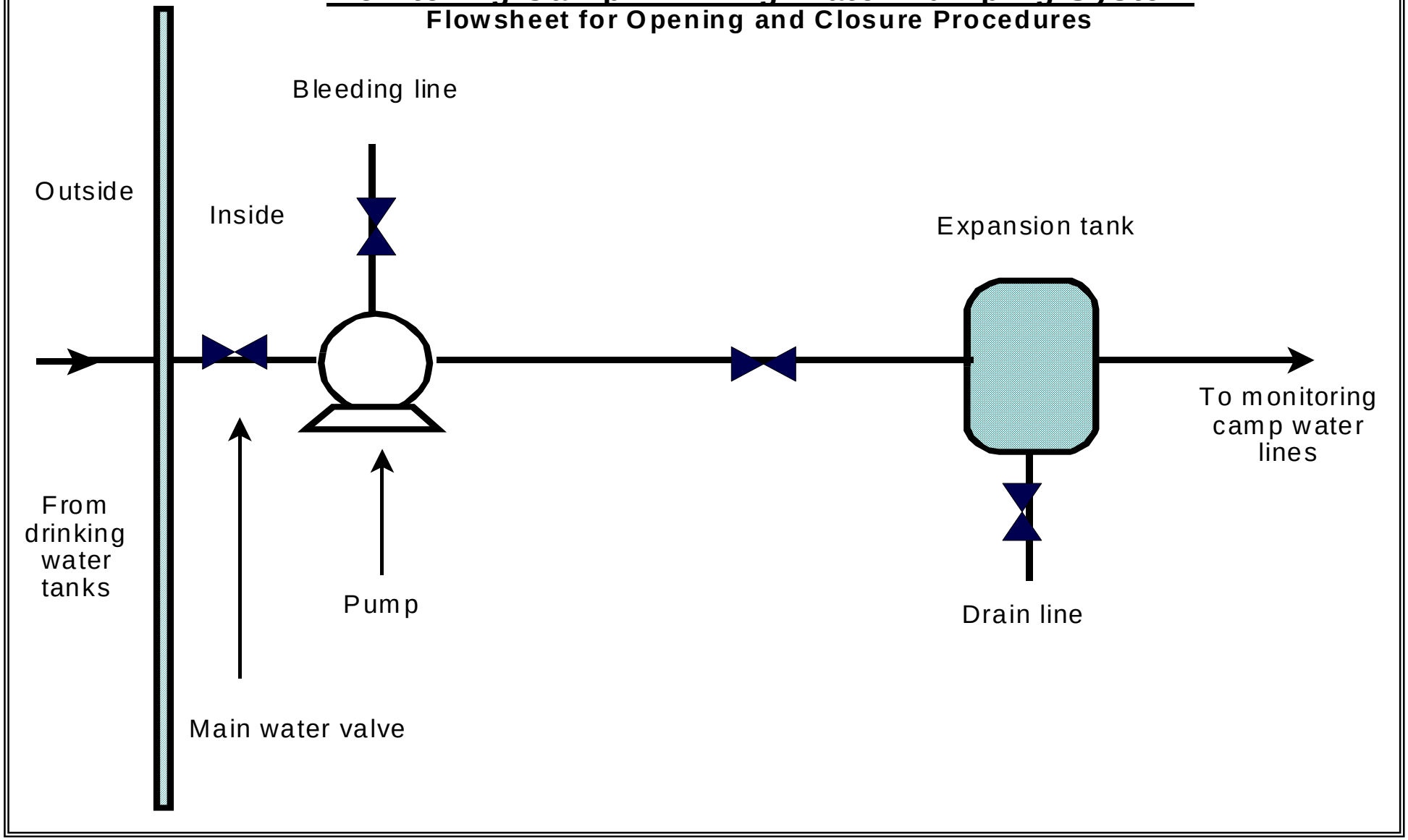
3.	Open bleeding valve	
4.	Fill completely the bleeding line manually with water	
5.	Start the pump, make sure that if fills with water	
6.	Close the bleeding line valve	
7.	Wait until the pressure builds up	
8.	Open camp line to supply all water lines.	

	Hot water tank	**Checklist**
1.	Turn on fuel supply valve	
2.	Make sure the drain valve is closed	
3.	Turn on the water heater (electrical switches)	

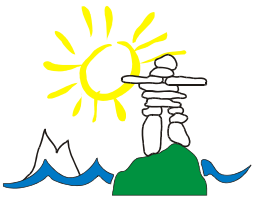
RESOLUTION ISLAND

Monitoring Camp Drinking Water Pumping System

Flowsheet for Opening and Closure Procedures



RESOLUTION ISLAND



Monitoring Camp Closure Procedures

Camp winterization

1. Cover all windows with plywood sheets.
2. Ship all perishable food to Iqaluit.
3. Ship all perishable drugs from medic room to Iqaluit.
4. Ship all battery operated radios to Iqaluit.
5. Clean all dirty dishes for storage.
6. Disconnect water hose from tank to camp and store.
7. Close all camp room's doors.
8. Drain all water lines (sink from the washroom -shower and toilet- and kitchen -) and water tank - **refer to camp water closure procedures for details**.
9. Drain the hot water tank - **refer to camp water closure procedures for details**.
10. Close all furnace fuel valves.
11. Put antifreeze inside all sinks, toilet and shower drains

Generator winterization

Follow the specific procedure

1. Turn OFF generators breaker.
2. Close all fuel valves
3. Cover exhaust pipes with plastic bags and secure with duct tape.
4. Disconnect battery poles.

Other winterization procedures

1. Park ATVs and trailer inside the airstrip shack,
2. Park the Kubota inside the DECON trailer,
3. Make sure all vehicles are fuelled up,.
1. Cover exhaust pipes with plastic bags (should equipment not stored inside) and Unplug the battery (ies).

RESOLUTION ISLAND

Resolution Island, Nunavut

Monitoring Camp Closure Procedures: Water draining

	Pump system and pressure builder start up (see flowsheet)	**Checklist**
1.	Shut off the pump	
2.	Close main water valve	
3.	Hook garden hose to drain line (located below expansion tanks)	
4.	Open bleeding line valve	
5.	Make sure supply camp line is opened	
6.	Make sure all other valves are opened	
7.	Open the drain valve and maintain the hose at ground level to allow all water to flow	

	Hot water tank	**Checklist**
1.	Shut down the water heater (close electrical switches)	
2.	Hook garden hose to drain line	
3.	Open the drain valve and maintain the hose at ground level to allow all water to flow	

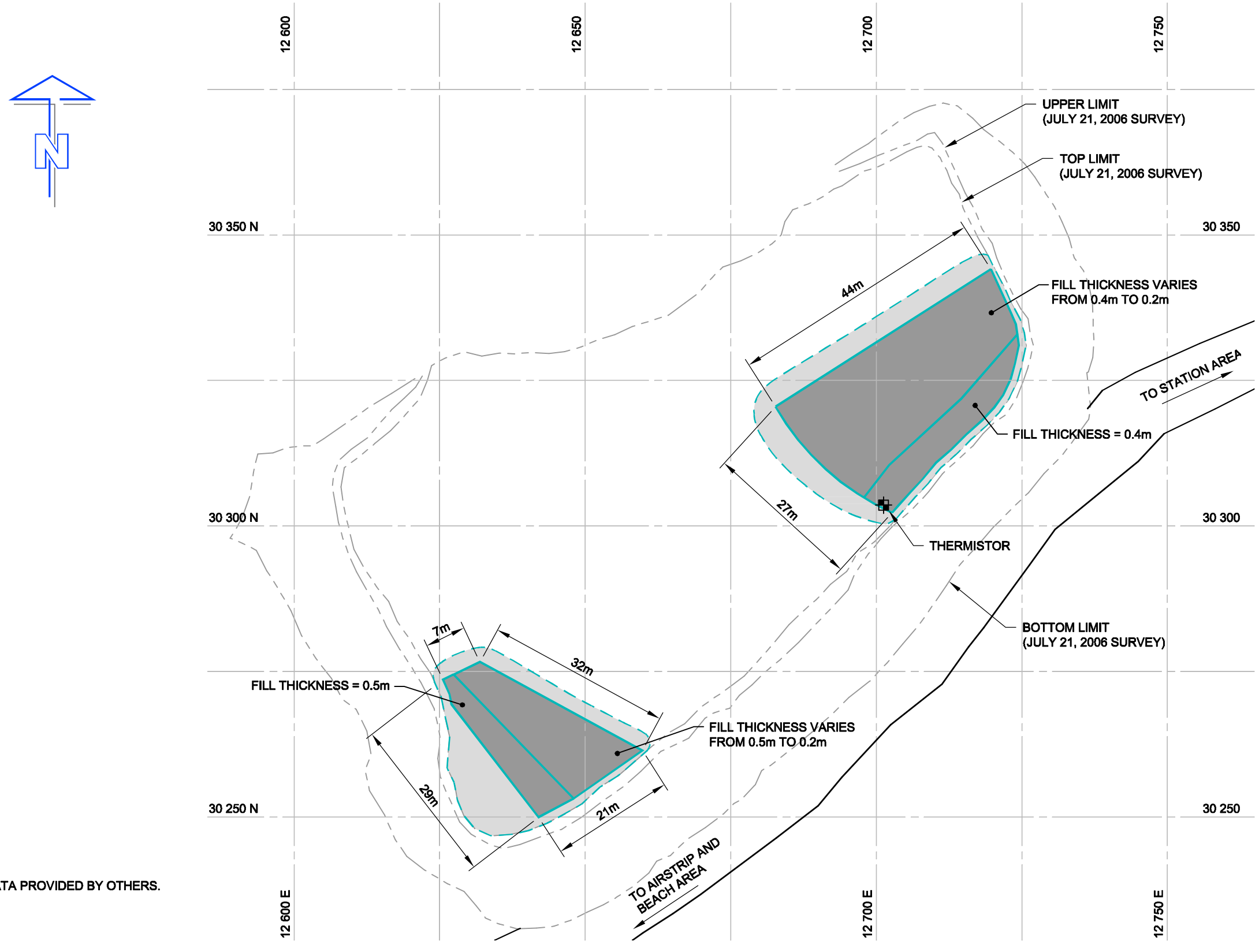
	Kitchen sink	**Checklist**
1.	Open taps	
2.	Unhook taps fittings	

	Washroom	**Checklist**

1.	Shut off toilet water supply valve	
2.	Flush toilet	
3.	Disconnect the toilet water supply valve compression fittings	
4.	Open shower taps	
5.	Unhook taps fittings	
6.	Open sink's taps	
7.	Open drain valve underneath the sink	

Appendix 4

Figure 26 Additional Fill Requirements, August 2006



LEGEND:

AREA REQUIRING ADDITIONAL FILL

AREA REQUIRING ADDITIONAL FILL
FEATHERED INTO EXISTING SLOPE

NOTE:
SURVEY DATA PROVIDED BY OTHERS.

FILE NAME: 2006 Tier2 cap thickness.dwg CAE - 2006/08/03

PLAN

0 7.5 15 22.5 m SCALE 1:750

Resolution Island
Tier II Landfill Final Grading

Additional Fill Requirements
August, 2006

Figure - 26

UMA | AECOM

Appendix 5

Land Use Permit

Indian and Northern Affairs Canada
www.inac.gc.ca

Affaires indiennes et du Nord Canada
www.ainc.gc.ca

Land Administration
P.O. Box 100
IQALUIT, NU, X0A 0H0
Phone: 867-975-4275
FAX: 867-975-4286

Your file - Votre référence

Our file - Notre référence

February 23, 2006

DIAND - Contaminated Sites Office
P.O. Box 2200
Iqaluit, Nunavut
X0A 0H0

Dear Mr. Spagnuolo:

Re: Land Use Permit #N2003X0038
Quarry Permit #2006QP0045
Type of Operation: Site Clean Up
Location: Resolution Island, Baffin, Nunavut

Further to our letter dated December 19, 2005, this will confirm that the above land use permit is hereby extended from February 19, 2006 to February 19, 2007.

Further to your application for a Quarry Permit dated January 27, 2006 we have enclosed your copy of Quarry Permit # 2006QP0045 authorizing your project as described in your application.

Please ensure that you adhere to the operating conditions annexed to your permit. Should you have any questions regarding any conditions of this permit, please contact our Field Office in Iqaluit, phone number (867) 979-4297.

Yours truly,

Jeffrey Holwell
A/Land Administrator Specialist
Land Administration

cc: RMO-Baffin
NPC
NIRB

Canada

Printed on recycled paper - Imprimé sur papier recyclé

TERRITORIAL QUARRYING REGULATIONS

QUARRYING PERMIT NO.2006QP0045

Permit Fee.....Free Permit under Section 12(2)(b)
of Territorial Quarrying Regulations.

DIAND - Contaminated Sites Office

of **Building 1553, PO Box 2200, Iqaluit, Nunavut, X0A 0H0**
is hereby authorized to take **5,000 cubic meters of Gravel**

from the lands described as follows: **From one (1) Borrow area, Lake Borrow Pit #2, Resolution Island, Nunavut.**

SUBJECT TO THE FOLLOWING CONDITIONS:

1. This permit expires twelve months from the date of issue or when the authorized quantity of material has been quarried or removed, whichever is the sooner.

2. This permit does not grant to the permittee any exclusive right or leasehold interest in the land described herein.

3. This permit shall not be assigned.

4. All quarrying under this permit shall be carried out in accordance with the Nunavut Mining Safety Ordinance.

5. This permit is subject to the provisions of the Territorial Quarrying Regulations and the conditions set out herein. Failure to comply with the provisions of the Regulations and the conditions prescribed in this permit may result in cancellation of the permit in accordance with Section 12(5) of the Territorial Quarrying Regulations without prior notice to the permittee.

6. The Permittee will identify the work area to the satisfaction of the Land Use Inspector prior to the removal of any material and any change in location will require prior approval of the Land Use Inspector.

7. The Permittee will not work any area worked by any other Permittee except as co-ordinated by the Land Use Inspector.

8. No material is to be removed from any land protected by a registered mineral claim, without the Permittee obtaining prior permission of the registered owner(s).

9. Prior to the tenth day of each month, the Permittee shall submit a report to the Land Use Inspector at **Iqaluit** indicating the quantity of material quarried and the quantity of material removed from the site.

10. Upon expiration of this Permit, as prescribed in Condition One, the Permittee shall level the excavation and restore the lands to the satisfaction of the Land Use Inspector within 30 days of said expiration date or as may be authorized by the Land Use Inspector.

11. Land Use Permit **N2003X0038** and its operating conditions will apply.

Issued at Iqaluit, this **23rd** day of **February, 2006**.

Land Agent

Appendix 6

Quarrying Permits

Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

Nunavut Regional Office
P.O. Box 2200
Iqaluit, NU, X0A 0H0

Spencer Dewar
Land Administrator Specialist
Indian & Northern Affairs Canada
P.O. Box 100
Iqaluit, NU, X0A 0H0

January 27, 2006

RE: Land Use Permit #N2003X0038 Quarry Application

In reference to the Resolution Island Project, please find attached one Quarry Permit application to be operated under the Land Use Permit (LUP) #N2003X0038. The quantity requested is summarized in the table below:

Old Permit	Location	Material Type	Volume (m^3)
2005QP0028	Lake Borrow Pit #2	Sand & Gravel	5,000

The new Quarry Permit application listed above replaces all existing permits under LUP #N2003X0038. The location of the proposed borrow pit is presented on the enclosed drawing. The project is conducted on an approximate area of 1,000 hectares. Should you require further information, please do not hesitate to contact me.

Sincerely,

original signed by

Lou Spagnuolo
Contaminants Sites Project Manager
Tel: (867) 979-7936, Fax: (867) 979-7939
Email: spagnuolol@inac.gc.ca

cc: Harry Flaherty; Director, Environmental Services– Qikiqtaaluk Corporation

att: Quarry Permit Application (1)
Location of Borrow Pits for the 2006 Season

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

APPLICATION FOR QUARRYING PERMIT
DEMANDE DE PERMIS POUR L'EXPLOITATION D'UNE CARRIÈRE

NAME - NOM: **LOU SPAGNUOLO** _____
OCCUPATION - PROFESSION: **CONTAMINATED SITES PROJECT MANAGER** _____
EMPLOYER - EMPLOYEUR: **INDIAN & NORTHERN AFFAIRS CANADA** _____
I hereby apply for à Quarrying Permit for the purpose of taking:
Je demande un permis pour l'exploitation d'une carrière afin d'extraire :
5,000 _____cubic metres of - mètres cubes de **SAND & GRAVEL** _____
_____cubic metres of - mètres cubes de _____
_____cubic metres of - mètres cubes de _____
FROM - DE : (Location of Pit- Emplacement de la carrière): **LAKE BORROW PIT #2** _____
NTS MAP SHEET # - N$_{o}$ de la carte SNRC **025H10** _____
Co-ordinates – Coordonnées **61°35' N 64°40'W** _____

1. Is any part of the land occupied? And if so, by whom and for what purpose?
   Est-ce qu'une partie des terres est occupée? Si oui, par qui et à quelles fins?
   NO _____
   _____

2. The only buildings or other improvements on the said lands are as follows:
   Bâtiments construits sur le site ou aux autres améliorations prévues :
   (A) Nature of improvements - Nature des améliorations : **N/A** _____
   (B) Value of improvements - Valeur des améliorations : _____
   (C) Owner of improvements - Propriétaire des améliorations : _____

3. The land is/is not wooded. (If wooded, describe species of trees and approximate size.) Les terres sont/ne sont pas boisées (Si elles sont boisées, décrire les espèces d'arbres et leur taille approximative.)
   NOT WOODED _____
   _____

4. The attached plan is a sketch plan of the said land as required by the Territorial Quarrying Regulations.
   Un plan des terres susmentionnées est joint à la présente demande conformément au *Règlement sur l'exploitation de carrières territoriales*.

Canada

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

I enclose the required fees as indicated below:
J'inclus les droits de permis indiqués ci-dessous:

QUARRY PERMIT FEE
DROITS DU PERMIS D'EXPLOITATION.....$150.00 TOTAL $_____
ROYALTIES ON SAND, GRAVEL LOAM.
REDEVANCES SUR LE SABLE,LE GRAVIER
ET LA TERRE BLANCHE
Per cubic metre - Par mètre cube :..... ..$ 1.50 TOTAL $_____
ROYALTIES ON OTHER BUILDING MATERIALS
REDEVANCES SUR LES AUTRES MATÉRIAUX DE CONSTRUCTION
Per cubic metre - Par mètre cube :.....$ 1.25 TOTAL $_____

TOTAL FEES - COÛTS TOTAUX : $_____

DATE: **JANUARY 27, 2006**_____

SIGNATURE OF APPLICANT - SIGNATURE DU DEMANDEUR

_____

Canada