

## **Abandonment & Restoration Plan**

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Tuktu Project Area

NWB License: 2BE-TUK1015 INAC License: N2010C0011



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## **EXECUTIVE SUMMARY**

Advanced Explorations Inc.'s Abandonment and Restoration Plan has been designed for the diamond drilling and associated programs currently being planned and undertaken at Tuktu Project, approximately 70 km west of Hall Beach, Nunavut. The plan applies to exploration activities to be undertaken at the camp and drill locations and, upon completion of the land use operation and exploration, procedures that will be implemented to allow proper abandonment and reclamation of the area. The plan is effective as of the front-cover date of this document and will be updated throughout the life of the project. The company has received the appropriate permits/licenses for the area, as detailed on the cover page of this report.

Primary access to Hall Beach is typically by charter flights from Iqaluit, Yellowknife, and various other cities in southern Canada, with helicopter or fixed wing aircraft transport to the site. Ground transportation in the spring, summer and fall will be limited to the minimum required, and will only be considered on durable land, and on tundra only when necessary travel has to be undertaken and the weather does not permit helicopter flights. In the winter, snowmobiles and skidded equipment will only be used on ground with adequate snow cover.

All structures in camp are temporary and will be removed upon completion of the project. A complete inspection of all disturbed areas will be conducted prior to final closure, with photos taken to document the closure. All appropriate agencies will be contacted once the final clean up is complete and AEI will organize a final site inspection visit with community representatives, Land Use Inspectors and in collaboration with the Nunavut Water Board staff, if requested.

The Abandonment and Restoration Plan as presented in this document deals with the topics of seasonal and final clean-ups of buildings and contents, drilling locations, fuel storage, waste, water, contamination and documentation and inspections.

The plan will be distributed to the head office and site managers directly involved in the project and hard copies will be available on site for all personnel to review. Additional copies and updates of this plan may be obtained via email at nadine@advanced-exploration.com or jennifer@advanced-exploration.com.



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## Introduction

Project infrastructure consists of removable tents, plywood buildings and small metal storage silos. All structures in camp are temporary and will be removed upon completion of the project.

Primary access to Hall Beach is typically by charter flights from Iqaluit, Yellowknife, and various other cities in southern Canada, with helicopter or fixed wing aircraft transport from Hall Beach to the site for both cargo and personnel. Ground transportation in the spring, summer and fall will be limited to the minimum required, and will only be considered on durable land, and on tundra only when necessary travel has to be undertaken and the weather does not permit helicopter flights. In the winter, snowmobiles and skidded equipment will only be used on ground with adequate snow cover.

The following plan applies to exploration activities to be undertaken at the project area. Upon completion of the land use operation and exploration, the following steps and procedures will be implemented to allow proper abandonment and restoration of the area.

## **Seasonal Abandonment and Restoration Plan**

## **Buildings and Contents**

All tent structures will be secured for the winter with all equipment (stoves, kitchen gear, office, showers, etc.) left on site. The camp will be secured and minimal food (including canned food) will be left on site.

### Drilling

The drill return will be filtered through a baffle system where possible, or allowed to settle behind constructed berms to remove cuttings. Drill cuttings from the baffle system will then be placed back into any washout areas around their source drill holes. Cuttings that settle out behind the berm will be left in place and allowed to dewater naturally. Overflows from baffles and berms will be captured using sand bags and left in place to filter over a number of days. Calcium chloride will be the only drill additive used during the program and kept on tarps.



These restored areas (including cuttings behind berms) will then be covered with peat moss to help with natural re-vegetation of the site. Note that a control group of holes, representing 10% of those drilled, will not be so remediated in order to get a better idea of the effect peat moss has in contributing to soil restoration.

Drill equipment will be removed from individual drill sites, dismantled, packaged and stored along with its ancillary equipment and rods at a central location. The drills will be left on solid ground until the following season. All drill locations will be inspected immediately upon completion of each drill hole, with all waste collected and taken to camp for incineration or removal to an approved disposal location. All drill holes will be backfilled and restored prior to seasonal closure.

The sites will also be inspected for soil contamination. All inspections will be documented with photos. Before and after photos will also be taken of all drill sites. All drill holes will be inspected for evaluation when the camp re-opens the next year.

## Fuel Storage

A thorough inspection of full fuel drums as well as an inventory of all fuel drums will be made prior to camp seasonal closure. Empty drums are to be maintained at the beach for re-use or be returned on sealift voyages for proper disposal. Drums located at the storage area will be placed within secondary containment berms, capable of holding 110% of the total volume stored. The soil of all fuel use, storage and transfer areas will be inspected for contamination. All inspections will be documented with photos.

### Waste

### Combustible waste

All combustible waste will be incinerated in a government approved dual chamber, forced-air incinerator throughout the course of the program. Ash will be collected, backhauled on the sealift and disposed of in approved facilities. Once the camp is closed, all remaining combustible waste will be burned, with the soil inspected for contamination. All inspections will be documented with photos.

## Non-combustible waste

Non-combustible waste will be hauled out by sealift throughout the course of the program for proper disposal, or flown out depending on what transportation methods are available at the time. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having proper documentation in the form of a waste manifest.



## Sewage

All sewage will be incinerated in a government approved dual chamber, forced-air incinerator throughout the course of the program.

### Grey Water

All grey water will flow through a grease trap and be disposed of into a sump with water flow directly away from surface water bodies. All sumps will be backfilled and restored prior to seasonal closure.

## Empty Barrels/Fuel Drums

Empty barrels/fuel drums shall be reused or taken offsite by sealift for proper disposal.

## Water System

Pumps, tanks and hoses will be drained, dismantled, packaged and stored, with hoses rolled and stored.

### **Contamination Clean Up**

Any soils/snow at camp or at the drill sites that may become contaminated will be treated as per the *Oil and Hazardous Material Spill Contingency Plan*. Contaminated soils/snow will be put into barrels and sent to approved disposal facilities. Before and after photographs will be taken to document the contamination and the clean up. The areas will be rehabilitated to their previous standards of human utilization and natural productivity. Any overburden or soil removed will be replaced. The areas will be graded back to their natural contours and re-established to the extent possible with vegetation.

### **Documentation and Inspection**

Equipment and temporary structures left on site will be inventoried. A complete inspection of all disturbed areas (drill sites, camp and fuel caches) will be conducted prior to seasonal closure with a full inventory taken at each location. Photographs will also be taken of all of the sites.

## **Final Abandonment and Restoration Plan**

## **Buildings and Contents**

All reusable buildings and equipment like tents, tent frames, stoves, showers, etc. will be dismantled, packaged and removed from site. Wooden structures will be dismantled, moved and stored. Nails, screws, anchors and other such parts will be



recovered and kept where practical, otherwise packaged and flown out to an approved municipal landfill.

## **Drill Sites and Equipment**

All drills and equipment will be dismantled, packaged and removed from site. At all drill sites, casings will be cut off to ground level. All drill sites, campsites, etc. will be revegetated as required.

## Fuel Storage

All fuel drums will be removed and the areas where there have been fuel caches will be thoroughly inspected. Any contaminated soil will be treated according to the "Oil and Hazardous Material Spill Contingency Plan", and photos will be taken of all caches to include in the final report.

#### Waste

### Combustible waste

Once the camp is closed, all remaining combustible waste will be burned and the incinerator will be dismantled and moved to an approved disposal site. The soil will be inspected for contamination. All inspections will be documented with photos.

### Non-combustible waste

Non-combustible waste will be backhauled to Churchill and/or Montreal for proper disposal, or be flown out depending on what transportation methods are available at the time. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having proper documentation in the form of a waste manifest.

### Empty Barrels/Fuel Drums

Empty barrels/fuel drums shall be taken offsite by sealift for proper disposal.

## Water System

Pumps, tanks and hoses will be drained, dismantled, packaged, and removed from the site.



## **Contamination Clean Up**

Any soil at the camp, fuel caches or drill sites that has become contaminated will be treated as per the *Oil and Hazardous Material Spill Contingency Plan*. Before and after photographs will be taken to document the contamination and the clean up. The areas will be rehabilitated to their previous standards of human utilization and natural productivity. Any overburden or soil removed will be replaced. The areas will be graded back to their natural contours and re-established to the extent possible with vegetation.

## **Documentation and Inspection**

A complete inspection of all disturbed areas (drill sites, camp and fuel caches) will be conducted prior to final closure with a full inventory taken at each location. As well, photographs will be taken to document each work area and campsite before, during and after the project is complete. All appropriate agencies will be contacted once the final clean up is complete and we will organize a final site inspection visit with community representatives, Land Use Inspectors and in collaboration with the Nunavut Water Board staff, if requested.



Signed "John Gingerich"

John Gingerich
Chief Executive Officer
Advanced Explorations Incorporated

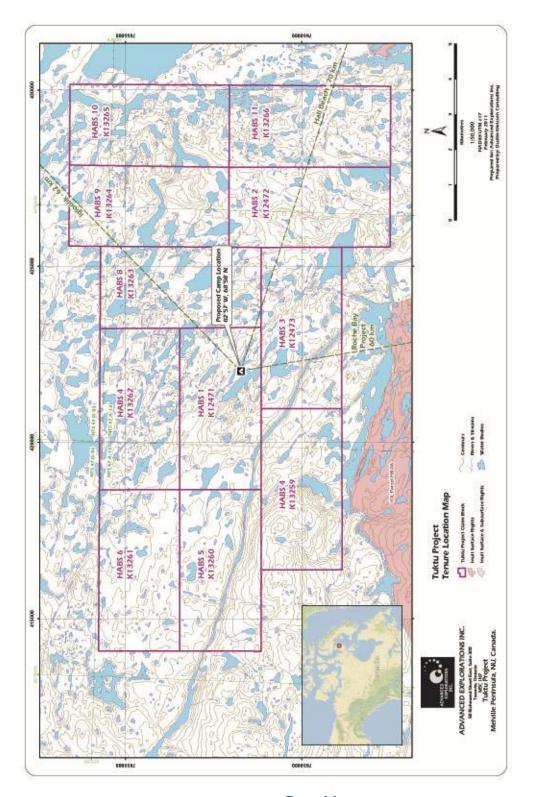
Signed "Lou Nagy"

March 2011

Lou Nagy
Date
Chief Financial Officer
Advanced Explorations Incorporated

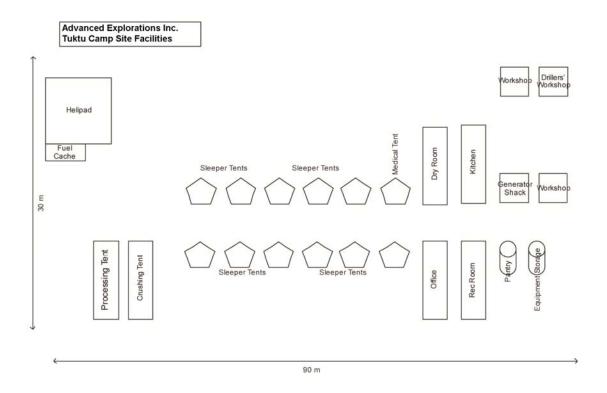


Figure 1: Site Map





**Figure 2: Schematic of Temporary Exploration Camp Layout** 



Note: Diagram is representative of the general site layout only.