



**Abandonment and Restoration Plan**  
Beluga Project  
Kimmirut, Nunavut

Revised April 2006

## Preamble

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This Abandonment and Restoration Plan (Plan) is effective from April 1, 2006 through December 31, 2009 (pending approval) or until there have been significant changes to the activities outlined in the existing permits to warrant changes to the Plan. Minor changes will be submitted as an addendum to the Plan and submitted to the distribution list as required. This plan applies to all projects and operations of True North Gems Inc. (True North) licensed by the Nunavut Water Board and the C&GS Government of Nunavut (Water Application File No: 2BE-KIM (formerly NWB2KIM); LUP No. 801-LUP-B05-001 and NIRB Screening No. 05EN060).

The following formal distribution has been made of this Plan.

True North Gems Head Office in Vancouver, BC  
Beluga Sapphire Project Office (Field Season Only) in Kimmirut  
Nunavut Water Board  
Environment Canada  
Department of Fisheries and Oceans  
Nunavut Impact Review Board (NIRB)  
Community and Government Services Government of Nunavut  
Hamlet of Kimmirut

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## 1.0 Introduction

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This document provides True North with guidelines to follow during seasonal shutdown and final abandonment and restoration that will return the sites as near as possible to the original conditions. This Plan is a living document and will be amended as required to accommodate change. Notification will be made to the appropriate authorities once changes have been made to the Plan.

This document complies with existing regulations. The Plan will be posted on the project site in the field office for reference.

The abandonment plan will be implemented during seasonal shutdown as detailed in Section 6 or if the project does not or no longer contains the volume, quality, or grade of sapphires necessary for economic feasibility as detailed in Section 7. Effective restoration is applied as an ongoing process of care and maintenance throughout the working season.

## 2.0 Authorized Persons

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The following names are responsible for activating the Plan, listed in order of authority:

1. Greg Davison VP Exploration and Project Manager True North Gems:  
Baffin Island Site Office/Warehouse: (867) 939-2345  
Baffin Island House Phone: seasonal use; will advise  
Vancouver Office: (604) 687-8055 ext 104  
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2. Site Manager (To be Determined):  
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Baffin Island House Phone: seasonal use; will advise  
Beluga Project Sat Phone: (403) 987-8574 seasonal use; will advise
3. Designate  
Seasonal; will advise
4. Greg Fekete (Whitehorse) President True North Gems: (867) 668-4405
5. True North Gems Inc. Head Office (Suite 500-602 West Hastings St, Vancouver BC V6B 1P2): (604)-687-8055

## 3.0 Site Information

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### 3.1 General Site Description

True North optioned the Baffin Island Sapphire occurrence in 2003 and actively is exploring the area. The project is located 2.7 kilometres from the hamlet of Kimmirut on Baffin Island, Nunavut (Map 1, Appendix 1). The work area is within the NAIPI (F62386), NAIPI 2 (62387), NAIPI 3 (F62388) (Pending) and NAIPI 4 (F77802) (Pending) claim boundary defined as 62° 47' N – 62° 50' N latitude and 69° 51' W – 69° 55' W longitude.

The project is accessible by land and air. Seasonal work occurs between the months of June through October. Ongoing exploration includes prospecting, mapping, heavy mineral concentrate sampling, assay bulk sampling and drilling. Due to the proximity of the project to Kimmirut, all personnel are accommodated in the hamlet.

To date, there is no temporary or permanent infrastructure on the property. A temporary fuel storage and secondary containment facility will be constructed for the 2006 field season. All equipment used during the summer program will be kept safely stored in a warehouse in Kimmirut during the off season. No buildings, equipment, or waste will be left on the project area past the expiration date of the Land Use or NWB permits, unless new permits have been obtained.

The municipal landfill in Kimmirut can be used (permission pending) for disposal of drill cuttings, combustible solid waste, non-combustible solid waste, bulky items/ scrap metal, and waste oil. The landfill is open 24 hours a day and has a location for burning for disposal of fuel contaminated products. The Interim Foreman, Bobby Barrieau, can be contacted at (867)-939-2256.

Spills (fuel, chemical or hazardous material), whether small or large, will be addressed at the time of occurrence and according to the protocols outlined in the Spill contingency Plan (Revised April 2006).

## 4.0 Schedule

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Seasonal abandonment and restoration will take approximately 2 days to complete, based on the current project activities and infrastructure. It will commence at the end of the summer field season during the month of September. The objective at the time of seasonal shutdown is to have minimized the cumulative and residual impact of the current year's activities.

Final abandonment and restoration will commence as soon as practicable after it has been determined that the project will not warrant further exploration or following commercial production. Dependent upon infrastructure and environmental parameters (physical, biological, and socio economic), the duration of the activity will vary and at this point in the project exploration no date has been set. The work will be completed by the field crew under the supervision of the Project Manager or designate. Consultants will be contracted for assistance, as necessary.

## **5.0 Infrastructure**

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To date, there is no temporary or permanent infrastructure on site.

## **6.0 Seasonal Abandonment and Restoration Plan**

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### 6.1 Buildings and Content

To date, there are no buildings on site. Office/storage facilities and crew accommodations in Kimmirut will be returned in good condition. All garbage will be properly disposed or recycled where possible and facilities exist. Field gear will be stored in Kimmirut for upcoming field seasons.

### 6.2 Water System

Pumps, tanks and hose used to supply the work site will be drained, dismantled, and stored during the off-season.

### 6.3 Electrical System

To date, project activities do not require the use of an electrical system. The generator will be stored offsite during the off-season in the storage facilities in Kimmirut.

### 6.4 Fuel and Chemical Storage Facilities

A temporary fuel storage and secondary containment facility will be constructed for the 2006 field season (See Map 2 Appendix 2). This facility, constructed of plastic tarps and 2X4's, will be dismantled and reused, if possible, for future field seasons or properly disposed in the landfill. Unused fuel (full and partial drums) will be returned to the source. The spent barrels will be reused or returned in a timely fashion back to the Kimik Co-Op in Kimmirut for a deposit refund or proper disposal.

Chemicals stored on site consist of drill products such as polymers, oil and grease. These products are stored either on the drill or at the office/storage facility in Kimmirut. Any remaining products will be packaged and shipped with the drill. Household cleaners such as laundry detergents, bleach and dish soaps will be returned to the source or to an interested buyer.

#### 6.5 Waste Facilities and Incinerator

To date there are no waste facilities or incinerator. Any wastes such as combustible solid waste, non-combustible solid waste, bulky items/ scrap metal, waste oil/ hazardous waste and empty barrels/ fuel drums will be properly disposed in the municipal landfill in Kimmirut (permission pending). Items will be recycled if possible provided the proper facilities exist.

#### 6.6 Greywater Sump

To date, there is no greywater sump on site. All personnel accommodations are in Kimmirut, where there is an existing system in place.

#### 6.7 Blackwater Sump

To date, there is no blackwater sump on site. All personnel accommodations are in Kimmirut, where there is an existing system in place.

#### 6.8 Helicopter Pad

To date, there is no helicopter pad on site.

#### 6.9 Camp Site

Due to the proximity of the project to Kimmirut, all personnel are accommodated in the hamlet.

#### 6.10 Drilling Area Restoration

Drill pads will be constructed by placing wooden timbers on the bedrock. The timbers are attached by using planks and 2X4's that form a platform on which the drill be placed. This setup requires very little ground clearing. Only protruding large boulders will be moved, if necessary, by hand. Once drilling is complete on a site the drill and timbers will be removed, any garbage will be collected and properly disposed, fuel and equipment will be transferred to the next drill site or empties will be returned to Kimmirut for a refund or proper disposal and the site will be returned as near as possible to its original state. Drill casing will be removed unless there are significant reasons to leave intact for future use. Drill holes will be capped and marked. A company representative will inspect and photograph the area to ensure that the site has been properly restored.

True North will not be using drill sumps for the current proposed drilling locations. Proposed drilling occurs on bedrock or areas with little to no overburden. These areas are not suitable for making drill sumps. Sites for natural sumps will be looked at in the up coming field season. If a site is found that meets all the regulatory requirements, arrangements will be made with the proper authorities.

To prevent waste water and drill cuttings from eroding the earth and transferring deleterious substances from the selected drilling locations into a fresh water body, waste water and drill cuttings will be captured, using a suction pump and tank system including settling tanks to remove the solids, and properly disposed. Waste water can be reused as much as possible; any clean drill water discharge will be routed via a point to be determined in coordination with the requisite authorities. The drill cuttings will be collected in pails or in super sacs. The waste will be transported to the landfill in

Kimmirut for proper disposal. Prior to transportation, buckets or sacs will be stored in a designated area well away from the normal high water mark of the surrounding area. The storage area will be bermed with impermeable spill mats or plastic sheets to prevent deleterious materials from eroding the earth and entering water bodies.

Drill water will be collected, re-circulated through settling tanks and then back to the drill. The settling tanks will also be used to settle out solids that will then be removed to local landfill for proper disposal. Clean drill water (water free of drill products, sediment or any other deleterious substance) will be expelled into a natural depression above the 30m high water mark for natural percolation through the rocks.

At end of the season, the drill and all its ancillary equipment will be dismantled and stored for use in the upcoming field seasons. Sumps, if used, will be properly backfilled and levelled.

Diamond drill core will be stored according to the terms and conditions of the land use permit. Some core will be shipped back to head office for analysis or display, or sent to a core library. The remaining core will be neatly stacked and stored in a designated area.

#### 6.11 Assay Bulk Sample Sites

Pending further sampling from existing assay bulk sample sites, sites will not be remediated at the end of the field season. The sites will be visibly marked to prevent accidents.

#### 6.12 Work-site Clean-Up

Any tools and equipment on-site will be removed to Kimmirut for shipment.

#### 6.13 Documentation and Inspection

Photos of the worksite, including drill sites and assay bulk sample sites, will be taken prior to commencement of work, where possible, and at the end of the field season. Monitoring including water sampling, Acid Rock Drainage (ARD), Metal Leaching (ML), and wildlife studies will be conducted during the upcoming field seasons. Necessary information will be recorded and reported in end of season reports required by regulating bodies.

## **7.0 Final Abandonment and Restoration Plan**

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### 7.1 Buildings and Content

To date there are no buildings on site. Office/storage facilities and crew accommodations in Kimmirut will be returned in good condition. All garbage will be properly disposed or recycled where possible and facilities exist. All field gear will be shipped to head office in Vancouver.

## 7.2 Water System

Pumps, tanks and hose used to supply the work site will be drained, dismantled, packaged for shipping offsite.

## 7.3 Electrical System

To date, project activities do not require the use of an electrical system. Any power need to run equipment will be provided by a small gas powered generator. The generator will be shipped offsite for use on other projects or sold to an interested buyer.

## 7.4 Fuel and Chemical Storage Facilities

A temporary fuel storage and secondary containment facility will be constructed for the 2006 field season (See Map 2 Appendix 2). This facility, constructed of plastic tarps and 2X4's, will be dismantled and reused, if possible, for future field seasons or properly disposed in the landfill. Unused fuel (full and partial drums) will be returned to the source or an interested buyer. The spent barrels will be reused or returned in a timely fashion back to the Kimik Co-Op in Kimmirut for a deposit refund or proper disposal.

Chemicals stored on site consist of drill products such as polymers, oil and grease. These products are either stored on the drill or at the office/storage facility in Kimmirut. Any remaining products will be packaged and shipped with the drill. Household cleaners such as laundry detergents, bleach and dish soaps will be returned to the source or to an interested buyer.

## 7.5 Waste Facilities and Incinerator

To date, there are no waste facilities or incinerator. Any wastes such as combustible solid waste, non-combustible solid waste, bulky items/ scrap metal, waste oil/ hazardous waste and empty barrels/ fuel drums will be properly disposed in the municipal landfill in Kimmirut (permission pending). Items will be recycled if possible provided the proper facilities exist.

## 7.6 Greywater Sump

To date, there is no greywater sump on site. All personnel accommodations are in Kimmirut, where there is an existing system in place.

## 7.7 Blackwater Sump

To date, there is no blackwater sump on site. All personnel accommodations are in Kimmirut, where there is an existing system in place.

## 7.8 Helicopter Pad

To date, there is no helicopter pad on site.

## 7.9 Camp Site

Due to the proximity of the project to Kimmirut, all personnel are accommodated in the hamlet.

### 7.10 Drilling Area Restoration

Drill pads will be constructed by placing wooden timbers on the bedrock. The timbers are attached by using planks and 2X4's that form a platform on which the drill be placed. This setup requires very little, if any, ground clearing. Only protruding large boulders will be moved, if necessary, by hand. Once drilling is complete on a site, the drill and timbers will be removed, any garbage will be collected and properly disposed, fuel and equipment will be transferred to the next drill site or empties will be returned to Kimmirut for a refund or proper disposal and the site will be returned as near as possible to its original state. Where this cannot be immediately completed due to the proximity of ongoing work, rehabilitation will be pursued as soon as possible until it is returned to close-to-original conditions. Drill casing will be removed unless there is significant reasons to leave it intact for future use. Drill holes will be capped and marked. A company representative will inspect and photograph the site to ensure that the site has been properly restored.

True North will not be using drill sumps for the current proposed drilling locations. Proposed drilling occurs on bedrock or areas with little to no overburden. These areas are not suitable for making drill sumps. Sites for natural sumps will be looked at in the up coming field season. If a site is found that meets all the regulatory requirements, arrangements will be made with the proper authorities.

To prevent waste water and drill cuttings from eroding the earth and transferring deleterious substances from the selected drilling locations into a fresh water body, waste water and drill cuttings will be captured, using a suction pump and tank system including settling tanks to remove the solids, and properly disposed. Waste water can be reused as much as possible; any clean drill water discharge will be routed via a point to be determined in coordination with the requisite authorities. The drill cuttings will be collected in pails or in super sacs. The waste will be transported to the landfill in Kimmirut for proper disposal. Prior to transportation, buckets or sacs will be stored in a designated area well away from the normal high water mark of the surrounding area. The storage area will bermed with impermeable spill mats or plastic sheets to prevent deleterious materials from eroding the earth and entering water bodies.

Drill water will be collected, re-circulated through settling tanks and then back to the drill. The settling tanks will also be used to settle out solids that will then be removed to local landfill for proper disposal. Clean drill water (water free of drill products, sediment or any other deleterious substance) will be expelled into a natural depression above the 30m high water mark for natural percolation through the rocks.

During final abandonment and restoration, the drill and all its ancillary equipment will be dismantled and packaged for shipping to the drill contractor. Sumps, if used, will be properly backfilled and levelled. The drill and sump locations will be returned as near as possible to original conditions.

Diamond drill core will be stored according to the terms and conditions of the land use permit. Some core will be shipped back to head office for analysis or display or sent to a core library. The remaining core will be neatly stacked and stored in a designated area.

### 7.11 Assay Bulk Sample Sites

Assay bulk sampling will be conducted using a combination of the following mechanical, manual and blasting means: diamond chain saw, feathers, wedges, sledge hammers, micro-blaster (system using propellant technology to break rock), dexpan (expanding agent used to break rocks), pionjars (portable gas powered drill used to break rocks), and hammer drills. This equipment will be used on other projects or sold to interested buyers.

The assay bulk sample sites will be re-contoured where possible to return the sites to as near as possible to original conditions.

### 7.12 Work-site Clean-Up

Any tools and equipment on-site will be removed to Kimmirut for shipment.

### 7.13 Documentation and Inspection

Photos of the worksite, including drill sites and assay bulk sample sites, will be taken prior to commencement of work where possible. Monitoring including water sampling, Acid Rock Drainage (ARD), Metal Leaching (ML), and wildlife studies will be conducted during the upcoming field seasons. Photos will be taken when ever possible. The host rock, marble, does not have a high potential for ARD and has a high buffering capability.

Any remaining environmental impacts to the physical, biological and socio economic environments will be reviewed. Long term monitoring will be engaged as necessary to ensure that there are no environmental issues (physical, biological, or socio-economic). These will be in compliance with regulatory bodies.

Upon completion of the final abandonment and restoration photos will be taken and a final site inspection with community representatives, land use inspectors, water resource inspectors and other regulatory bodies. Upon completion of the Plan a final report will be prepared and distributed to the appropriate regulatory authorities to relinquish the land.

## **8.0 References**

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1. Minimum Requirements for A&R Plans, NWB ftp site
2. Maze Lake Project Abandonment and Restoration Plan Placer Dome (CLA) Limited, February 24, 2004

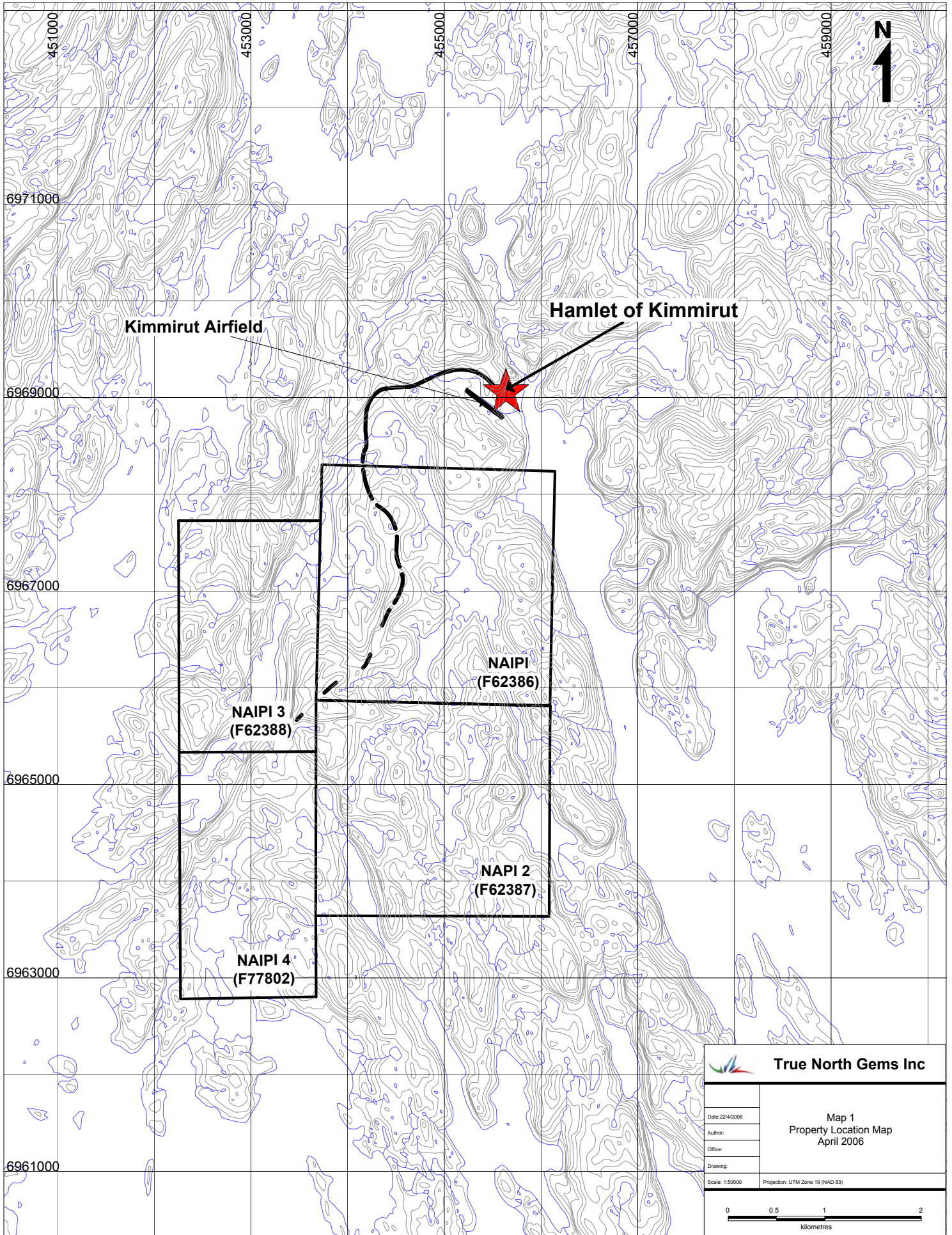
## 9.0 Appendices

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Appendix 1: Project Location Map

Appendix 2: Fuel Storage and Secondary Facility Location Map

Appendix 1  
Project Location Map



**Kimmirut Airfield**


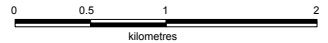
**Hamlet of Kimmirut**

**NAIPI 3  
(F62388)**

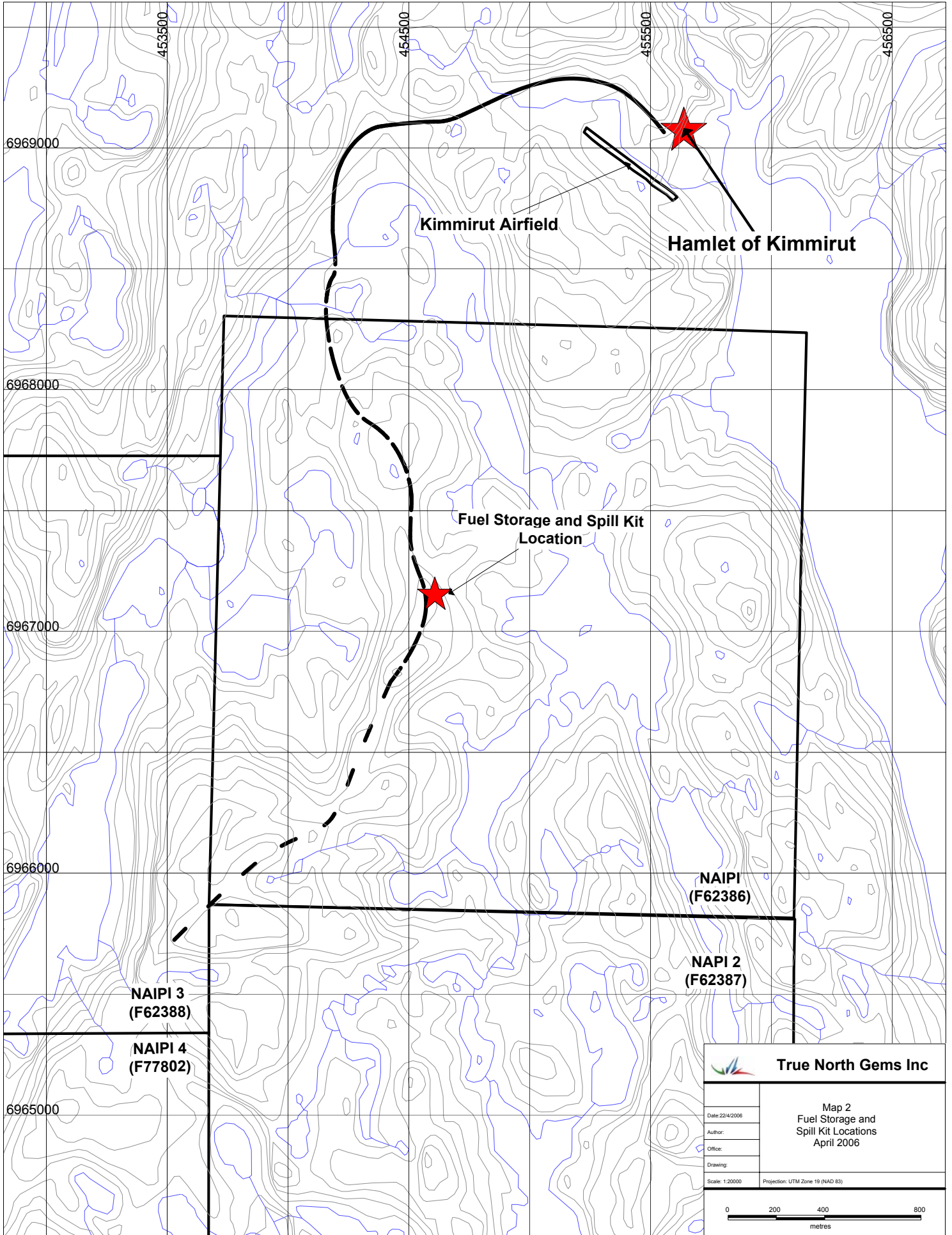
**NAIPI  
(F62386)**

**NAIPI 2  
(F62387)**

**NAIPI 4  
(F77802)**

		<b>True North Gems Inc</b>	
Date: 22/4/2006	Author:	<b>Map 1 Property Location Map April 2006</b>	
Office:	Drawing:		
Scale: 1:50000	Projection: UTM Zone 19 (NAD 83)		
			

Appendix 2  
Fuel Storage and Secondary Containment Facility Location Map



Kimmirut Airfield

Hamlet of Kimmirut

Fuel Storage and Spill Kit Location

NAIPI (F62386)

NAIPI 2 (F62387)

NAIPI 3 (F62388)

NAIPI 4 (F77802)



True North Gems Inc

Date: 22/4/2006

Author:

Office:

Drawing:

Scale: 1:20000

Projection: UTM Zone 19 (NAD 83)

Map 2  
Fuel Storage and  
Spill Kit Locations  
April 2006

