



**ABANDONMENT AND RESTORATION PLAN**

**FOR THE STORM PROJECT**

**NUNAVUT, CANADA**

**June, 2012**

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## **1.0 PREFACE**

This Abandonment and Restoration Plan applies specifically to exploration programs conducted by Commander Resources Ltd. at the Storm Property in northern Somerset Island, Nunavut. Included in the Appendix is a property location map and proposed camp layout. Commander Resources Ltd. is committed to the protection and conservation of the environment and to the safety and health of all its employees and contractors at the Storm Property. The proposed work for this project involves fuel transport and storage, diamond drilling, and establishing a temporary camp.

## 2.0 INTRODUCTION

The Storm Property is located in the northern part of Somerset Island, approximately 112 kilometres south of Resolute, Nunavut. The property consists of four contiguous Prospecting Permits (PP) numbered 7547, 7548, 7549, and 7880. Access to the project area is typically by chartered Twin Otter or helicopter from Resolute. Daily commercial air service to Resolute is available via Iqaluit, with connections from Ottawa or Montreal. A once a week Saturday service from Yellowknife to Resolute is also available.

Previous exploration work in this area, conducted by Noranda Inc. and Teck-Cominco Ltd. in the 1990's, resulted in the discovery of zinc and lead mineralization at the Seal deposit, located near the coast on the north side of Aston Bay. Copper mineralization was discovered at the Storm prospect, located about 20 km inland, east-southeast of the Seal deposit. Exploration ceased in these areas in 2000 due to weak metal prices. Commander Resources Ltd. acquired PP's 7547, 7548, and 7549 in 2008, and PP7880 in 2010.

The duration of exploration programs is typically April to September. Work in the spring could involve mobile skid-mounted drilling on ice. In the summer, helicopter supported drilling, mapping, sampling, prospecting, and ground geophysics are possible.

Commander is planning to build a small, 12 person temporary tent camp on the property in order to carry out a small drilling program. The proposed camp location is inland from the ocean, on a small lake. The drilling will be completed using a helicopter portable diamond drill rig and should take approximately 8-12 weeks to complete. This program is to be completed either in the summer of 2013, or the summer of 2014. Future exploration, including a more extensive diamond drilling program, will depend on the results of this work.

<b>Camp</b>	<b>Latitude</b>	<b>Longitude</b>
Storm Project Camp	73°40'00" N	94°18'00" W

Table 1. Storm Project approximate camp and fuel cache location.

### 3.0 SCHEDULE

Equipment and supplies, including materials for camp construction, will be mobilized to the camp location at the beginning of summer in 2013. Camp set up and drill construction will commence during this time. Drilling is expected to run from mid to late summer, lasting about 8 to 12 weeks. A seasonal shutdown of the camp will commence thereafter, with a late summer to early fall shutdown expected.

### 4.0 INFRASTRUCTURE

Camp is expected to consist of:

- Three 14' x 20' insulated tents to function as a coreshack, a kitchen, and a dry
- 3 or 4 12' x 16' tents to function as sleepers and a first aid station
- Outhouse facilities, which do not require electricity or water
- Generator shack to house a 20kW diesel generator and back-up generator
- Incinerator (dual chamber, fuel fired)
- Helicopter landing area
- Bermed fuel cache and storage area
- Dry tent will hold: 2 showers, sink, washer/drier, water tank

#### Structures

3-4	12'x16' Sleeper tents
1	14'x20' Core shack
1	14'x20' Kitchen tent
1	14'x20' Dry tent
1	12'x14' Generator shack
1	Outhouse

#### Vehicles/Transportation

1	Helicopter (Bell Long Ranger or similar)
1	Twin Otter

#### Drilling Equipment

See attached *Drill Rig Specification Summary*

## 5.0 SEASONAL SHUTDOWN

Prior to closure and/or shutdown, a complete inspection of all areas used will be carried out, including all drill sites. The condition prior to leaving will be documented with photographs. Any contaminated soils around the camp or drill sites will be treated as per the Spill Contingency Plan. Any washed out areas will be filled and leveled, as necessary.

A full inventory of all on-site supplies will be taken. All drilling equipment, chemicals, camp supplies, and tent canvas and frames will be removed from site at the end of each season. Tent floors will either be secured and stored adjacent to the fuel cache for use in subsequent seasons or burned, depending on condition. All tent sites will be restored by fertilizing the ground following removal of tent canvas, frames, and floors. The remaining fuel cache will be secured and covered so snow and water do not enter the drums and leakage does not occur. Fuel drums will be stored on their sides with the bungs in the three and nine o'clock positions.

### Waste Disposal

- Combustible Waste: All combustible waste will be burned in accordance with the Nunavut Department of Environment's *Burning and Incineration of Solid Waste* Guidelines.
- Non-Combustible Waste: All non-combustible waste will be sealed in appropriate containers and shipped to an approved disposal site.
- Sumps: The sumps will be covered and staked to identify their locations. Sumps will be filled and levelled as required.

## 6.0 FINAL ABANDONMENT AND RESTORATION

Prior to lease termination, all structures, equipment, supplies, and fuel will be removed from the property with the exception of core box stacks, which will be permanently secured on site. Materials of value will be salvaged by Commander Resources Ltd. Local businesses and residents will have the opportunity to salvage any remaining materials that will otherwise be disposed of by Commander. A thorough inspection of all areas of activity will be conducted, and photographs will be taken to include in the final reports submitted to the Water Resource Inspector and as part of the Annual Report submitted to AANDC and the Nunavut Water Board. All relevant regulatory agencies will be notified once the final clean-up has concluded.

Combustible waste will be incinerated or burned in accordance with the Nunavut Department of Environment's *Burning and Incineration of Solid Waste* Guidelines. All other waste, including any contaminated material or debris will be removed from site, and any contaminated soils will be treated as per the Spill Contingency Plan. Sumps will be inspected to ensure no leaching or run off occurs. Back filling and levelling will be employed as necessary.

All drill core will be permanently stored on-site for future access. A stable, flat, well drained location will be chosen to minimize the possibility of spillage. Drills and drilling equipment will be dismantled, packaged, secured, and shipped as per the drill contract. A final inspection of all drill sites and equipment storage areas will be done upon completion of drill de-mobilization.

Areas disturbed by activities related to exploration at the Storm Project will be fertilized as necessary to encourage re-vegetation. Any eroded or washed out areas related to exploration activities will be filled and re-contoured to natural levels.

## 7.0 POST CLOSURE SITE MONITORING

After site reclamation is complete, annual monitoring can occur. The monitoring could include soil and water testing, measuring and documenting plant re-growth, examining potential run off and erosion problems, and checking the stability and condition of permanent core racks and boxes. Reports, including photographs, are to be submitted to the appropriate regulatory bodies.

## 8.0 EMERGENCY CONTACTS

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Phone: (604) 484-4077  
Mobile: (778) 996-2350

Environment Canada, Yellowknife  
24 Hour Duty Officer  
Phone: (867) 766-3737

Environment Canada (Emergency)  
Yellowknife  
Phone: (867) 669-4725

Fisheries and Oceans Canada  
Marine Environmental Emergency  
Phone: (709) 772-2083  
Toll Free: 1-800-563-9089

Nunavut Water Board  
Phone: (867) 360-6338  
Fax: (867) 360-6369

NU Department of Environment, Iqaluit  
Phone: (867) 975-7700  
Fax: (867) 975-4594

Qikiqtani Inuit Association, Iqaluit  
Lands and Resources Officer  
Phone: (867) 979-5391

Nunavut Tunngavik Inc.  
Cambridge Bay, NU  
Phone: (867) 983-5600  
Fax: (867) 983-5624



## **APPENDIX A**

### **Drill Rig Specifications**

**COMMANDER RESOURCES LTD.  
DRILL RIG SPECIFICATION SUMMARY  
FOR STORM PROJECT LAND USE PERMIT AMENDMENT**

We have not yet confirmed which drill contractor will be used, however the typical drill rig specifications are as follows:

**Heli-Portable Diamond Drill Rig Specifications (From Major Drilling)**

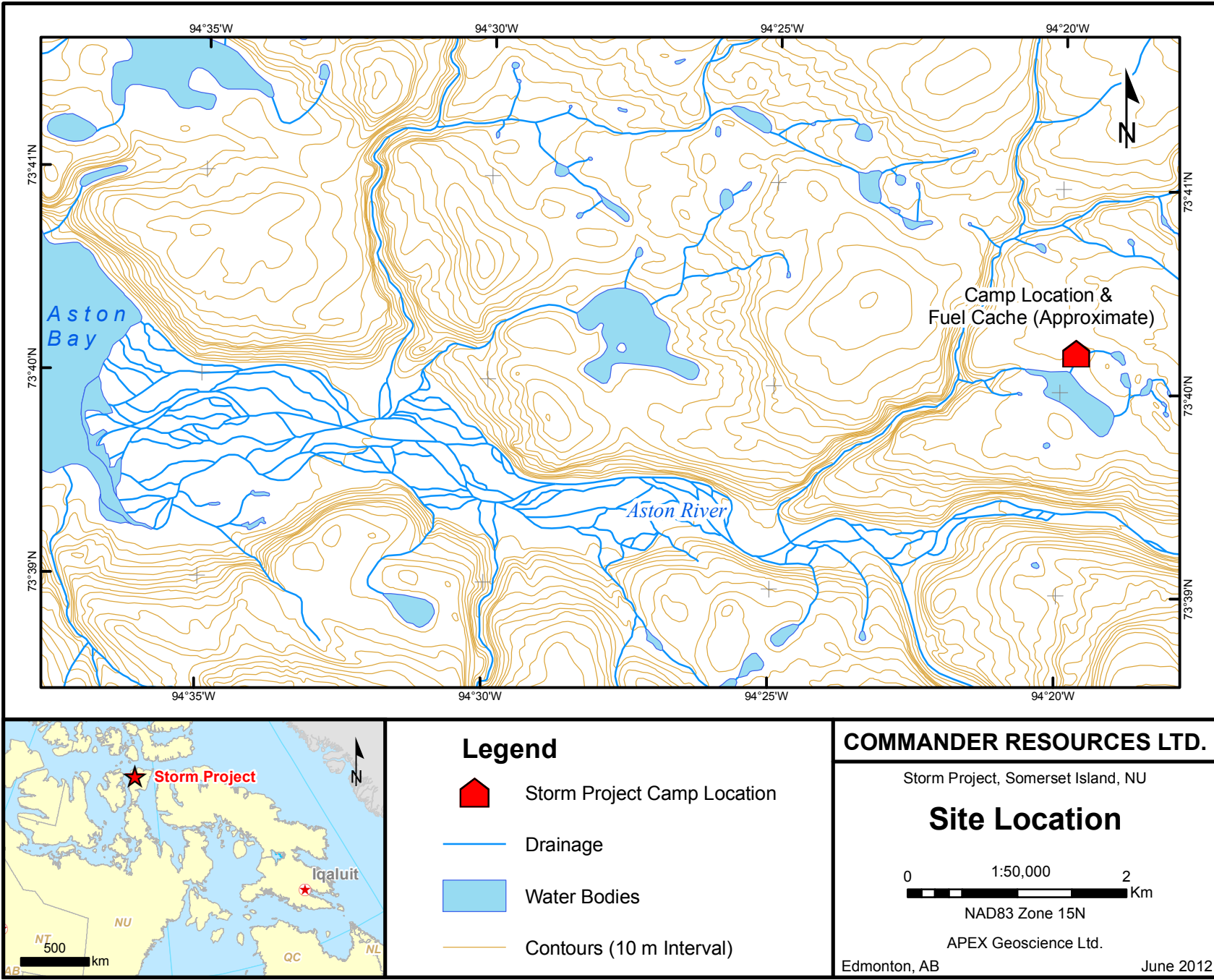
Specification	Details	Comments
Drill Type	Boyles 17-A	Lightweight, portable drill rig made for helicopter transport.
Engine-Generator	4 Cylinder Turbo Deutz	
Pumps	Boyles Triplex diesel pump  Or  Electric submersible pump	The electric submersible pump can be used in deeper water, in relatively flat terrain (it is more likely that we will be using the Boyles Triplex diesel pump).
Weight	Total rig setup: 7 tons (14 000 lbs)	With all tanks full of fuel. Depending on helicopter capacity, a drill move usually involves 18-20 helicopter trips. See breakdown below.
Drill Platform Dimensions	5 m <sup>2</sup>	The drill itself is approximately 2m long and 1.5 m wide, and sits on 5m long skids.
Water usage	15-30 m <sup>3</sup> /day	Whenever possible, water will be recirculated to minimize uptake from water source. 30m <sup>3</sup> is the maximum amount, based on continuous drilling 24 hours/day. This amount does not take into account time spent on drill moves and maintenance.

**Weight Breakdown for Heli transport:**

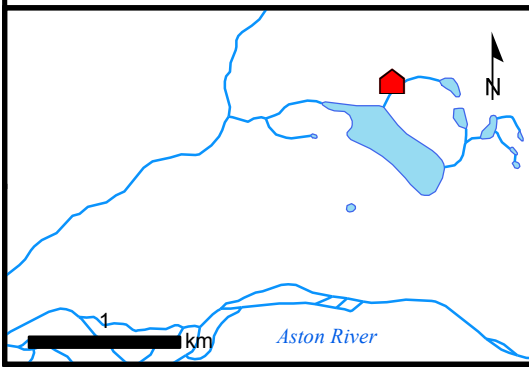
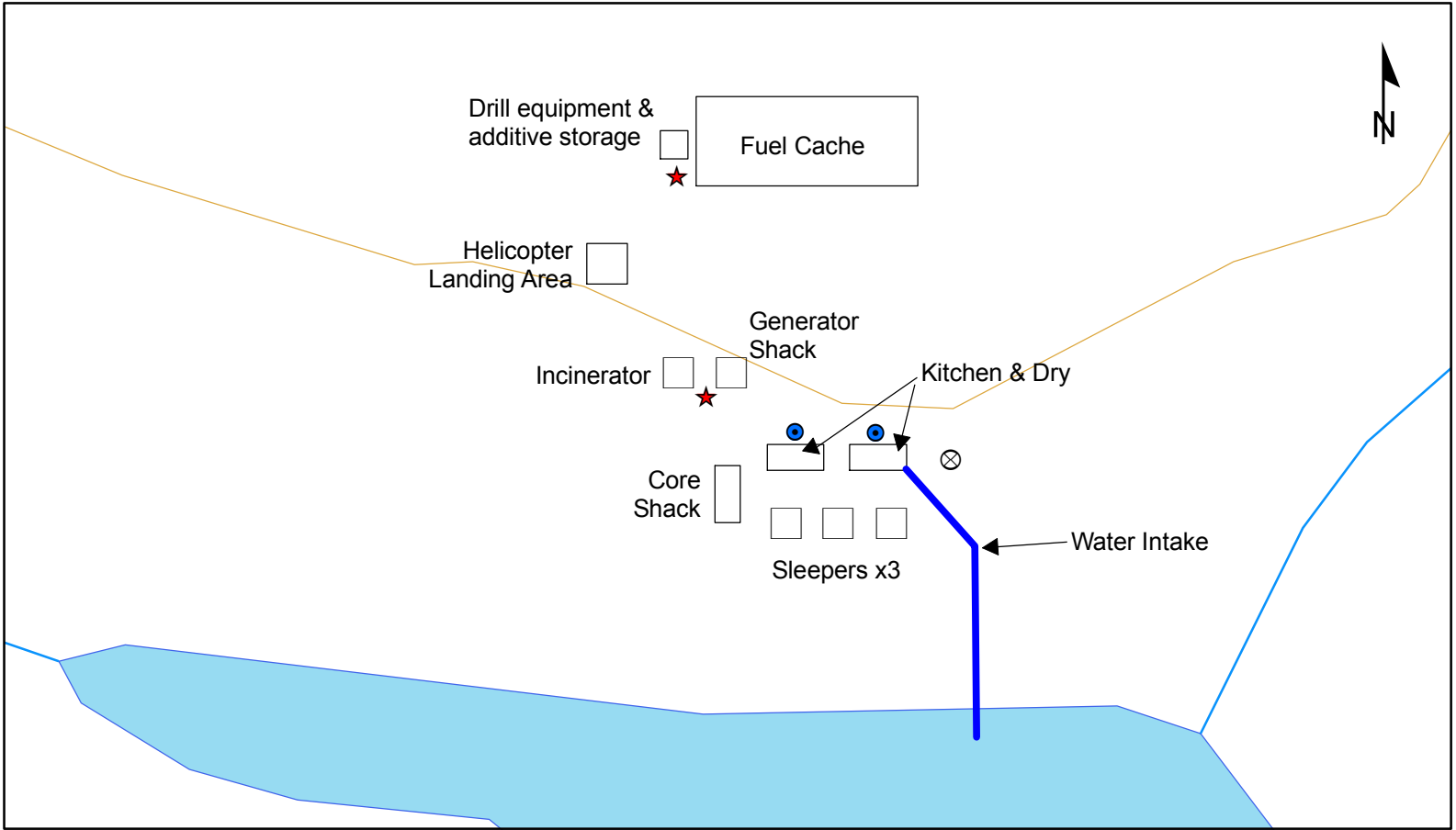
1. 1200 lbs - Timbers for drill set-up (pad)
2. 1000 lbs - Drill skids and bunks
3. 1200 lbs - Drill floor complete
4. 1000 lbs - Aluminum sub base c/w w/line tugger
5. 1500 lbs - Hoist and gear box assembly
6. 1500 lbs - Drill motor and transmission
7. 1150 lbs - 12-HH hyd. drill head c/w chuck and rod breaker
8. 1000 lbs - Drill tower (20 ft. alum)
9. 750 lbs - Hyd. M/Mix tank with Triplex pressure pump
10. 1000 lbs - Drill shack and roof plywood
11. 1000 lbs - Misc. drill equip in shack
12. 1500 lbs - Generator and gen shack unit
13. 4500 lbs - 3-fly baskets with drill equipment, spares, and supplies etc.
14. 1200 lbs - 3-fly Tidy tanks (fuel tanks)
15. 1500 lbs - Survival shack with gear
16. 5000 lbs - Drill steel (70 NQ 3m rods, 10 NW 3m casing, 2 NQ core barrels and tubes etc., misc. items)
17. 1500 lbs - Safety equipment (spill kits, fire extinguishers, pack board and basket, first aid kits, emergency communication etc.)
18. 1500 lbs - Supply pump and shack unit
19. 3000 lbs - Hoseline to reach 1500m
20. 1500 lbs - Possible misc. supply line equip. depending on length and time of the year
21. 1500 lbs - Misc. supplies also depending on location and/or weather

## **APPENDIX B**

- 1. Location Map (Note: Camp Location Approximate)**
  
- 2. Camp Site Map (Note: Possible Layout Only; Actual Camp Layout  
To Be Determined At Start of Field Program in 2013)**



Map 1



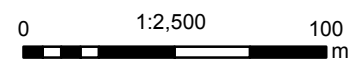
### Legend

- |              |               |
|--------------|---------------|
| Drainage     | Camp Location |
| Water Bodies | Sump          |
| Contours     | Spill Kit     |
|              | Outhouse      |

### COMMANDER RESOURCES LTD.

Storm Project, Somerset Island, NU

### Camp Layout



NAD83 Zone 15N

APEX Geoscience Ltd.

Edmonton, AB

June 2012