



Committee Bay Project

Explosives Management Plan

Revision 1

North Country Gold Corp.
November 2014

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2.0 **DOCUMENT CONTROL**

Version	Date	Section	Pages	Revision
1	17/Nov/2014	all	all	Format update

3.0 **BACKGROUND**

North Country Gold Corp. ('NCGC') is a publically listed, Canadian based exploration company conducting mineral exploration within the Committee Bay area in eastern portion of the Kitikmeot Region, Nunavut Territory, Canada.

The Committee Bay Project ('CBP') comprises a number of mineral claims and leases located on both Crown Land and Inuit owned (surface rights only) land pursuant to the Nunavut Land Claims Agreement. The project encompasses NCGC's flagship Three Bluffs gold deposit, numerous gold occurrences, four exploration camps and a number of fuel and equipment caches.

Exploration work programs are generally undertaken as seasonal campaigns occurring between March and October. Work activities comprise claim and lease staking, prospecting, geological mapping, rock, till and soil sampling, airborne and ground geophysics and drilling. Supplies, including fuel are airlifted to the CBP from various towns and cities in Nunavut, Manitoba and the Northwest Territories.

In 2011, NCGC initiated an upgrade of its Hayes Camp. This work comprised upgrades to camp buildings and installation of new washroom facilities, quonset structures, a dual chambered incinerator, waste water treatment system, and initiation of the construction of a 3000' airstrip. NCGC intends to continue these camp upgrades and to construct an all-weather road from Hayes camp to, and within the Three Bluffs drilling area in coming years.

NCGC has the following permits and licences in place to support advanced exploration activity at the CBP.

Organization	Description	Permit/Licence #
Nunavut Impact Review Board	Project Reference Number	07EN021
Aboriginal Affairs and Northern Development Canada (AANDC)	Land Use Permit (Bullion camp)	N2014C0002
	Land Use Permit (Hayes camp)	N2014C0005
Kitikmeot Inuit Association	Land Use Licence for IOL (Ingot and Crater camps)	KTL314C003
Nunavut Water Board (NWB)	Water Licence	NWB-2BE-CRA1015
AANDC	Commercial Leases	Lease 065J/11-1-2
		Lease 065J/12-1-2

4.0 INTRODUCTION

NCGC initiated significant infrastructure upgrades to Hayes Camp in 2011 to support ongoing exploration work at the Three Bluffs gold deposit and improve the operational safety and efficiency of ongoing work.

As part of these infrastructure upgrades, NCGC commenced the construction of a 3000' airstrip at Hayes Camp. The company also plans to construct an all-weather road to from Hayes Camp to the Three Bluffs drilling area to enable year round motive access and reduce the dependency on helicopters. NCGC intends to complete the construction of this airstrip and the planned road route in subsequent operational seasons.

NCGC expects future quarrying activities to support airstrip and road construction will require the use of explosives to liberate rock material suitable for crushing.

The use of pre-packaged, ammonium nitrate based explosives is being proposed based on the expected site conditions.

5.0 SCOPE AND OBJECTIVES

This Explosives Management Plan (ExMP) has been prepared to outline the procedures to be implemented by NCGC during the course of blasting operations at the CBP. The plan describes the transportation, storage and handling protocols to be adopted by NCG to ensure that explosives management and blasting occur in a safe and secure manner and that any environmental impacts associated with this activity are minimized.

Explosives supplies have not yet been identified

6.0 EXPLOSIVE QUANTITIES

NCGC expects to utilise up to 10,000 kg of pre-packaged commercial explosives to support the operations at the Hayes Camp site annually. This will include detonators, boosters, pre-packaged commercial explosives and detonating cord. The recommended products are currently listed as approved products federally. They are industry proven for use in northern climates and are accepted globally.

7.0 **APPLICABLE LEGISLATION AND GUIDELINES**

The control and use of explosives within Canada and Nunavut are covered by existing federal and territorial acts and regulations.

NCGC will put implement standard operating policies and procedures which meet or exceed the required regulations.

The main applicable regulations in the case of the Committee Bay Project include (but are not limited to):

Federal:

- Explosives Act and Regulations
- Transportation of Dangerous Goods Act and Regulations
- National Fire Code
- Hazardous Products Act

Territorial

- Mines Health and Safety Act and Regulations
- Explosive Use act and Regulations
- Fire Prevention Act and Regulations

Based on the remote nature of the site, ensuring adequate on-site support and response to any potential environmental considerations is critical. All essential equipment required to support spill containment and recovery will be located at Hayes Camp and will be operated by the NCG site staff.

NCG will maintain a detailed documentation for the safe handling, transport, and use of explosives. As a precondition of receipt of federal licensing for the storage, use, and transportation of explosives there is the requirement to have in place a detailed site specific Emergency Response Plan (ERP).

NCG will utilize the CAN/CSA Z731-95 Standard for "Emergency Preparedness and Response" as the guiding document for the preparation of site specific ERP's. A detailed ERP, prepared in accordance with the guidance provided in this standard will be prepared during development of the project. It will be integrated with the site ERP to maximize resource utilization, training and planning efforts.

EXPLOSIVES MANAGEMENT

NCG has strict handling policies with regards to the safe handling, transportation, manufacture and storage of explosives. Through this documentation and established procedures, sites will be established to ensure adherence to all relevant regulations and safety.

7.1 Explosives Storage Facilities

General infrastructure to support the project includes:

- Storage for pre-packaged explosives
- Explosive Materials Storage e.g. detonators etc.

Pre-packaged explosives will be stored in an explosives magazine storage area (see Appendix A). 2 Magazines will be of an appropriate type (refer to the document "Explosives Storage Standards - 2001 published by the NR Can Explosives Regulatory Division for specific means of construction).

One magazine will be used to store the packaged explosives, and one to store the detonators. It is forecasted that up to 8,000 kilograms of pre-packaged product will be required to support the initial activities to finish the all-weather airstrip during the 2012 season.

The magazines will be located 280m from camp and 50m apart and the magazine storage site will be established respecting the requirements outlined in the NR Can ERD issued Quantity Distance. Based on the climatic conditions, it is highly likely that at least one magazine in each set-up will require internal heating to ensure product performance. The magazines will be locked at all times and the blast controller and camp managers will maintain keys to the magazines.

The magazines should be grounded to reduce the possibility of being struck by lightning. In addition, use of portable electrical devices, (cell phones, GPS's) will be strictly prohibited in the explosive storage area.

The explosive storage area will be located more than 30m from the nearest high water mark of any stream or water body.

7.2 Explosive Storage

Fuse lighters, igniter cord, and igniter cord connectors are explosives, but present more of a fire hazard than an explosion risk. For this reason, these items

must not be stored with either the blasting explosives, or the detonators, but rather in a separate, dry and secure location.

Any detonating cord or boosters, since they contain small amount of explosives, their explosive potential must always be borne in mind. They will always be stored in the blasting explosives magazine (never with the detonators) and kept in closed cases. Cut ends of detonating cords should be sealed with masking or other suitable tape to prevent loss of explosives.

On the interior wall of the magazine, a 'stacking line' must be painted or otherwise permanently marked with a red line at least 10mm wide and a distance of at least 15 cm below the height of the bullet-resistant material. Cases should never be piled too high or above the staking line.

7.3 Signs

Hazard warning signs will be posted around the magazines and storage area indicating that only authorised personnel may enter the area, as well as no smoking signs and no fuel transfer within 100m of the storage area.

Only materials and equipment that do not increase the risk of fire or explosion and that are needed for handling explosives in the magazine may be brought into the magazine.

7.4 Fire Hazards

Fire is a hazard that must always be borne in mind with considering explosive storage. To guard against fire risk, the surrounding area must be kept clear of debris and all combustible materials for a distance of at least 8 m.

Empty cases or other combustible material must not be allowed to accumulate inside or in proximity to the magazine. All empty explosives packages and packing material must be carefully collected and destroyed as they constitute a potential explosive and fire hazard.

Regular follow-up by magazine operators must be made to ensure: observance of the "No Smoking" rule, magazine is exclusively for the storage of the explosives, magazine is kept clean and orderly and dust free, proper staking of explosives below staking line, and packaging of explosives properly identified with owners identification.

Cases of prepackaged explosives should be removed from the magazine before opening then properly closed before returning to the magazine.

7.5 *Explosives Handling*

Attention must always be paid to the turnover of the stock. The older stock must be used first since most explosives deteriorate over time. Care must be taken not to leave old stock at the back when new stock is brought into the magazine.

The presence of corrosion on the metal shells of detonators indicates that deterioration may be advanced and the detonators should be destroyed with care. Damaged detonators should not be used. In addition, pre-packaged explosives should be inspected regularly for deterioration. Damaged explosive packages should not be used.

Instructions sheets for blasting explosives and initiation systems must be posted inside each magazine and reviewed frequently by the magazine keeper.

2.2.1 Inventories

Careful inventory must be kept of all receipts of blasting explosives and initiation systems to the magazine and for every issue from it. Care must be taken that the stocks do not exceed the licence limits for the magazine. See Appendix B for the NCG control sheets.

A magazine keeper who issues the shot firers, blasters etc must keep a record of the amount of blasting explosives and detonators used. "Returns" must also be carefully recorded. Every precaution must be taken to ensure that no explosives have been "mislaid" or lost. A signature must be obtained for every issue or return of explosives.

A record must be kept of every explosive that is put into and taken out of storage. The record must be retained of at least three years after the date the explosive is taken out of storage. All stock must be counted at least monthly and results from stock counts must be recorded in the inventory book. Unresolved discrepancies must be reported to police and the Explosives Regulatory Division. Records must be kept in a secure location to preclude loss of records in the event of a theft.

Every package or case of blasting explosives or detonators must be properly and permanently marked to indicate ownership, and magazine licence number.

No explosives will be stored at the camp storage site when camp is not active and in operation.

2.3 On-Site Handling/Transport

All on-site transportation will be done in accordance with Section 14 of the Mines Act and Regulations as well as with the Transportation of Dangerous Goods Act.

Non-process vehicles (i.e. Forklifts, on-site vehicles etc.) will be maintained in sound mechanical condition and equipped with safety equipment as required under mine site policy / regulations.

All vehicles used to transport explosives must be:

- Equipped with two fire extinguishers readily available
- Electrical wiring is insulated and firmly secured
- Fuel tanks and lines have no leaks
- Chassis and engine are clean and free from excess oil and grease
- Brakes and steering in good condition
- Tires not worn
- No vehicles will travel with more than 2000kg of explosive at any one time without an Explosives Vehicle Certificate

The portion of the vehicle containing explosives must be kept free of grit, combustible or abrasive materials, matches, and any spark producing device.

Detonators must be kept separate from the other explosives in a vehicle, and in a completely closed container or compartment that protects them from detonation. There must be no access to the detonators from inside the cargo compartment of the vehicle.

A driver of a vehicle must be a minimum of 18 years of age, and 21 years old if more than 2000kg is being transported. A vehicle should be equipped with a tracking and communication system to allow NCG to locate the vehicle at any time.

Four Orange Transport of Dangerous Goods placards are to be displayed in each side of a vehicle while it contains explosives. All explosives of the same compatibility group may be transported together.

All explosive equipment will be brought into camp according to the Transportation of Dangerous Goods Act.

2.4 Personnel Qualifications /Exposure

The base premise when dealing with explosives is to reduce exposure to non-essential personnel. The site will be established with appropriate man-limits agreed to by the NR Can Explosives Regulatory Division and published on the site license. As required under either federal or territorial regulations all personnel will hold valid permits / certificates.

2.5 Blast Design/Operations

Blast design and control of blasting parameters will be controlled by NCG. The current blasting parameters anticipate that 254mm bore holes will be drilled. Blasting patterns will be determined to optimise efficient use of explosives.

3 Safety Procedures

NCG will maintain procedures which outline explosives activities as well as safety systems required for the handling, transport of explosives. In addition, all personnel, contractors or otherwise, are trained in the use of explosives, and all NCG site safety policies including use of PPE. NCG is committed to ensuring that federal and territorial individual mandated qualifications and skills are maintained. Prior to undertaking any explosive activities, a safety meeting is conducted by the blaster in charge. Any access to the blasting site must be authorized by the blasting supervisor. All loading is done under the direct supervision of the blaster in charge of the pattern. Loading is based on the engineered design. As an example of standard blast protocols, no personnel are permitted within 500m of the blast area. This safety zone is also under observation for the potential entry of local wildlife. Blast will not be fired if this area is not clear. When the area is clear and the pattern is ready for blasting, there are a number of notifications that will occur (including sirens and radio communications as required). Following the blast, guards will remain in place.

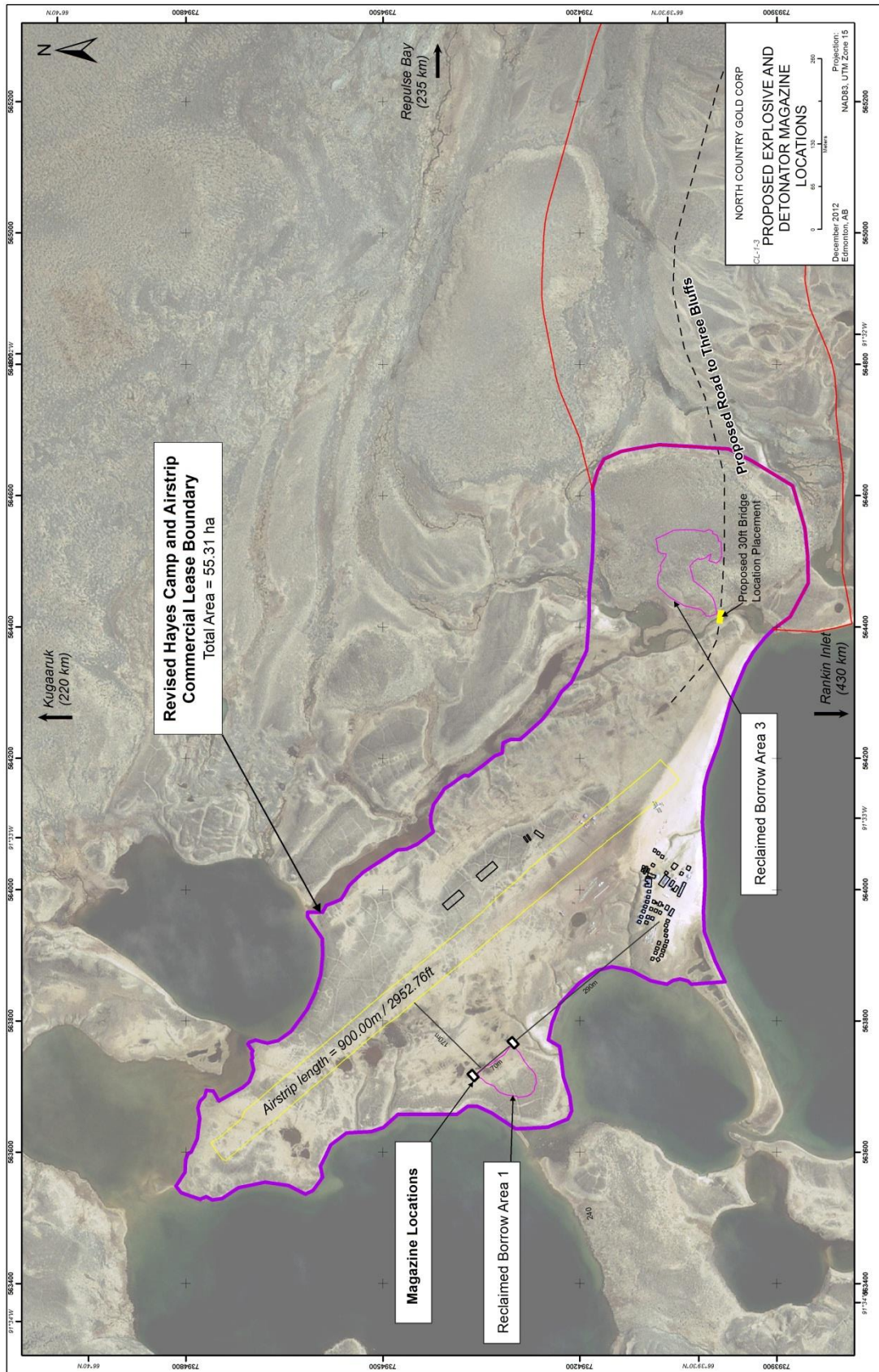
4 Spills & Spill Containment

NCG maintains a stringent Spills Prevention and Response Plan.

Ammonium Nitrate is commonly used in a variety of agricultural applications and as itself is not classified as an explosive. It is WHMIS classified as 5.1 (Oxidizer). AN is soluble in water and can be dissolved to create AN Solution (ANS) which is in turn used in the manufacture of explosives. A copy of the AN Prill technical data sheet and MSDS is attached at Appendix C. The attached data sheet outlines the nature of the product and the appropriate spill response. Areas will be monitored for the presence of ammonia present to indicate any potential for

AN leaching into ground water. The site will be loading and blasting in the same day so the potential for any AN leaching is minimized. Typical spill response measures for AN Prill are recovery using non-sparking shovels and packaging into designated containers. Spilled AN Prill will be worked into product and consumed in subsequent blasts. Spills of ANS will typically be recovered through excavation and soil disposal. All on site containers of hazardous material will be located inside of a secondary means of containment. Response to any chemical spill or loss of containment will be covered under the site emergency response plan.

Appendix A
Camp Layout and Explosives Storage Location



Appendix B
NCG Control Sheets

DATE	Shipped to / Received from	STOCK			SIGNATURE
		IN	OUT	BALANCE	

Appendix C
AN Prill technical data sheet and M