

# FUEL MANAGEMENT PLAN

**DEWAR LAKES CAMP  
QIKIQTANI REGION, NUNAVUT, CANADA**



**Prepared by:**



**Effective Date: June 1, 2017**

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## 1 Introduction

This Fuel Management Plan (FMP) applies to activities carried out at the Commander Resources Ltd. ("Commander" or "the Company") Dewar Lakes Camp (the "Camp"), Nunavut, Canada.

This FMP will come into effect June 1, 2017, pending approval. Copies and updates to this plan may be obtained via the Company or APEX Geoscience Ltd. ("APEX").

### 1.1 Contact Details

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### 1.2 Purpose and Scope

The primary objective of the Dewar Lakes Camp FMP is to provide straightforward procedures for the storage and handling of fuels for the purpose of reducing the risk of environmental contamination and to ensure the health and safety of all personnel from the accidental release of deleterious materials. The FMP includes the following:

- Promote safe handling and use of all types of fuel.
- Reduce the likelihood of spills of all types of fuel.
- Identify responsibilities and procedures for all staff and contractors.
- Provide site specific information about the facilities and contingencies in place.
- Comply with federal and territorial government regulations and guidelines pertaining to transportation, storage, handling and disposal of any type of fuel.

### 1.3 Other Plans

The FMP should be considered as a part of the Property wide management system. Other management plans in place at the Dewar Lakes Camp include:

- Abandonment and Restoration Plan (ARP)
- Emergency Response Plan (ERP)
- Environmental Management Plan (EMP)
- Spill Prevention and Response Plan (SPRP)
- Waste Management Plan (WMP)

### 1.4 Camp Description and History

The Dewar Lakes Camp has been used by Commander Resources Ltd. since 2003 as a base location to conduct mineral exploration work on Baffin Island. Exploration programs and camp activities were most recently conducted under the authorization of Indigenous and Northern Affairs Canada ("INAC") Land Use Permit N2013C0014

(Expired Aug 14, 2016) and Nunavut Water Board (“NWB”) Water Licence 2BE-NAD0813 (Expired September 1, 2013). With the accompanying documents, Commander is applying for a new Land Use Permit and renewing the Water Licence to authorize work activities at the existing Dewar Lakes Camp.

The 40 person Dewar Lakes Camp is located on Crown Land beside Dewar Lakes, adjacent to the North Warning System Fox-3 airstrip in the Qikiqtani Region of Nunavut (Figure 1). The approximate location of the camp is 68°37'59” N and 71°6'38” W (or 414199E/7614919N UTM Nad83 Zone 19) and is located within the 1:50,000 National Topographic System (“NTS”) map sheet 27B12.

The camp consists of accommodations for up to 40 persons, a large cook tent, generator shack, incinerator, core shacks and a metal silo structure to be used for storage.

The camp was last utilized by Commander to support exploration activities in 2011. The site was last occupied in 2013 by Biogenie Ltd. (“Biogenie”) personnel, contracted by Commander, to clean up and secure the site after an episode of vandalism damaged camp structures. The vandalism resulted in significant damage and exposure of building contents to outdoor conditions, wind dispersion and wildlife.

The Dewar Lakes Camp Site was inspected in the summer of 2016 by an INAC Water Resources Officer and found to be vandalized and damaged once again.

The 2017 program, under the authorization of a new Land Use Permit subject to this application, will facilitate a cleanup and rebuild of the vandalized Dewar Lakes Camp. Upon re-establishment of the camp facilities, the camp will then be used to support exploration activities. The cleanup program at Dewar Lakes is tentatively scheduled to commence in June 2017. Use of the camp for exploration purposes will begin shortly after the camp cleanup commences and will be completed by September 2017. Exploration activities for 2017 and beyond will be authorized under separate permits and licences to be held by Commander or an assignee. It is anticipated that the rebuilt Dewar Lakes Camp will support ongoing exploration activities for the next several years.

## 2 Fuel Inventory

A main fuel cache will be established proximal to the camp, primarily to store diesel and jet fuel, with smaller quantities of gasoline and propane. Other hazardous materials found on site may include small quantities of various lubricants/oil/grease for maintenance of motorized equipment, cleaning products, and waste oil.

Diesel, jet fuel, and gasoline will be stored in 205 litre (L) steel drums. Propane will be stored in 100 pound (lb) cylinders equipped with pressure relief valves. Waste oil will be sealed in 205 L steel drums and removed from camp for proper disposal.

Table 2.1: Inventory of Fuels to be Stored on Site

Material	Container	Approximate in cache
Diesel	205 L Drum	23 Drums
Jet Fuel (Jet A or Jet B)	205 L Drum	25 Drums
Gasoline	205 L Drum	2 Drums
Propane	100 lb Cylinder	2 Cylinders

The Project Supervisor is responsible for maintaining a detailed fuel and hazardous material inventory, and is in charge of overseeing the maintenance and monitoring of all fuel and hazardous material caches.

### 3 Storage and Containment

All fuels and other hazardous materials will be stored within “Arctic Insta-Berms”, or similar products, for secondary containment. These types of berms utilize chemical and fire resistant fabric (generally polyurethane coated nylon or vinyl coated polyester material) designed for extreme arctic temperatures and puncture resistance. “RainDrain” or similar hydrocarbon filtration systems will be used to safely remove any water collected inside the berms, and as a safeguard against any potential overflows of contaminated water.

Fuel drums will be stored on their sides in organized rows with the bungs in the three o'clock and nine o'clock positions. Drums will be stood upright 1 to 2 days prior to use in order to allow any contaminants to settle. Daily inspections will be conducted to identify any damaged or leaking containers. In the event that a leak is discovered, the substance will either be used immediately or transferred to an undamaged container.

Propane cylinders will be equipped with a pressure release valve that opens and closes to prevent a buildup of excessive internal pressure. Labels, showing data such as date of manufacture and re-testing dates, will be applied to the collar of the cylinders. Propane is non-toxic and will not contaminate soil, however secondary containment berms will be used for storage as a precaution. All propane cylinders will be secured for safety and stored away from any sources of ignition.

All fuel storage and fuel transfer areas will be located a minimum distance of 31 m from the normal high water mark of any water body. Spill kits and firefighting equipment will be strategically located near where any hazardous materials are stored or transferred, such as in the helicopter(s), at the camp fuel cache and at other locations throughout the camp.

### 4 Fuel Transportation and Transfer

All fuel will be mobilized to camp by fixed wing aircraft. Drums will be inspected prior to being transferred to camp to identify any defects (i.e. torn, missing, or twisted gaskets, etc.); a second inspection will be performed upon arrival at camp. Regulations outlined

in the Transportation of Dangerous Goods Act, and other relevant legislation, will be observed at all times during transport. All drums will be inspected for leaks and defects prior to and after any required helicopter transport. Empty drums will be removed from site for proper disposal.

Electric or hand wobble pumps equipped with filtration devices will be used for the transfer of diesel, jet fuel, and gasoline from their storage containers directly to their end-use fuel tanks. Portable drip trays or mini-berms will be used to mitigate the risk of any spillage, and fully stocked spill kits will be available at all refueling stations. Proper grounding procedures will always be used during fuel transfer while using an electric pump. Cigarette smoking, sparks, open flames, and any potential ignition sources are prohibited within 100 m of any fuel storage site and at all times during fuel transfer.

When transferring fuel, the drum will be stood upright and blocked with the high side at 12 o'clock, the bung at 3 o'clock, and the vent at 9 o'clock to prevent water or dirty fuel from reaching the openings. The standpipe will be placed in a manner so that it will not be able to reach the lowest point in the drum, thus ensuring any contaminants will remain in the drum.

Any personnel who are required to handle or store fuel will receive appropriate training, including instruction in the operation and maintenance of fuel transfer and storage equipment. All on-site personnel will receive training as outlined in the "Dewar Lakes Camp Spill Prevention and Response Plan".

## 5 Signs, Labels, and Inspections

All drummed fuel will be clearly labeled in accordance with the Workplace Hazardous Materials Information System ("WHMIS") and other applicable legislation. Labels will include, but not limited to, the type of fuel, safe handling procedures, reference to Material Safety Data Sheets ("MSDS"), company name, and the date of delivery to site. Signs with the same information, along with MSDS for each fuel type will be posted at each fuel storage or transfer site. "No Smoking" signs will be posted at the camp fuel cache and transfer area.

All fuel drums will be inspected upon arrival at camp, and before and after helicopter transport. Monitoring of drums, fuel transfer equipment, and fuel caches will be ongoing during the exploration program. Daily inspections will be conducted to identify any damaged or leaking containers, and the findings reported in the "Daily Fuel Inspection Record". Any damage discovered during or as a result of transport will also be recorded. Any leaks or spills will be reported and contained as outlined in the "Dewar lakes Camp Spill Prevention and Response Plan". A copy of the Daily Fuel Inspection Record is attached in Appendix 2.

The Project Supervisor is responsible for supervising the monitoring and inspection program, and keeping a detailed inventory of all fuel and other hazardous materials on site.

## 6 Spill Kits

Spill kits will be located at each fuel cache, storage area, and refueling station. See the “Dewar lakes Camp Spill Prevention and Response Plan” for further details regarding spill kits, and spill response and reporting procedures.

## 7 Applicable Legislation and Guidelines

Acts, regulations, and guidelines that relate to the storage, handling, and transport of fuel include, but are not limited to, the following:

### 7.1 Federal

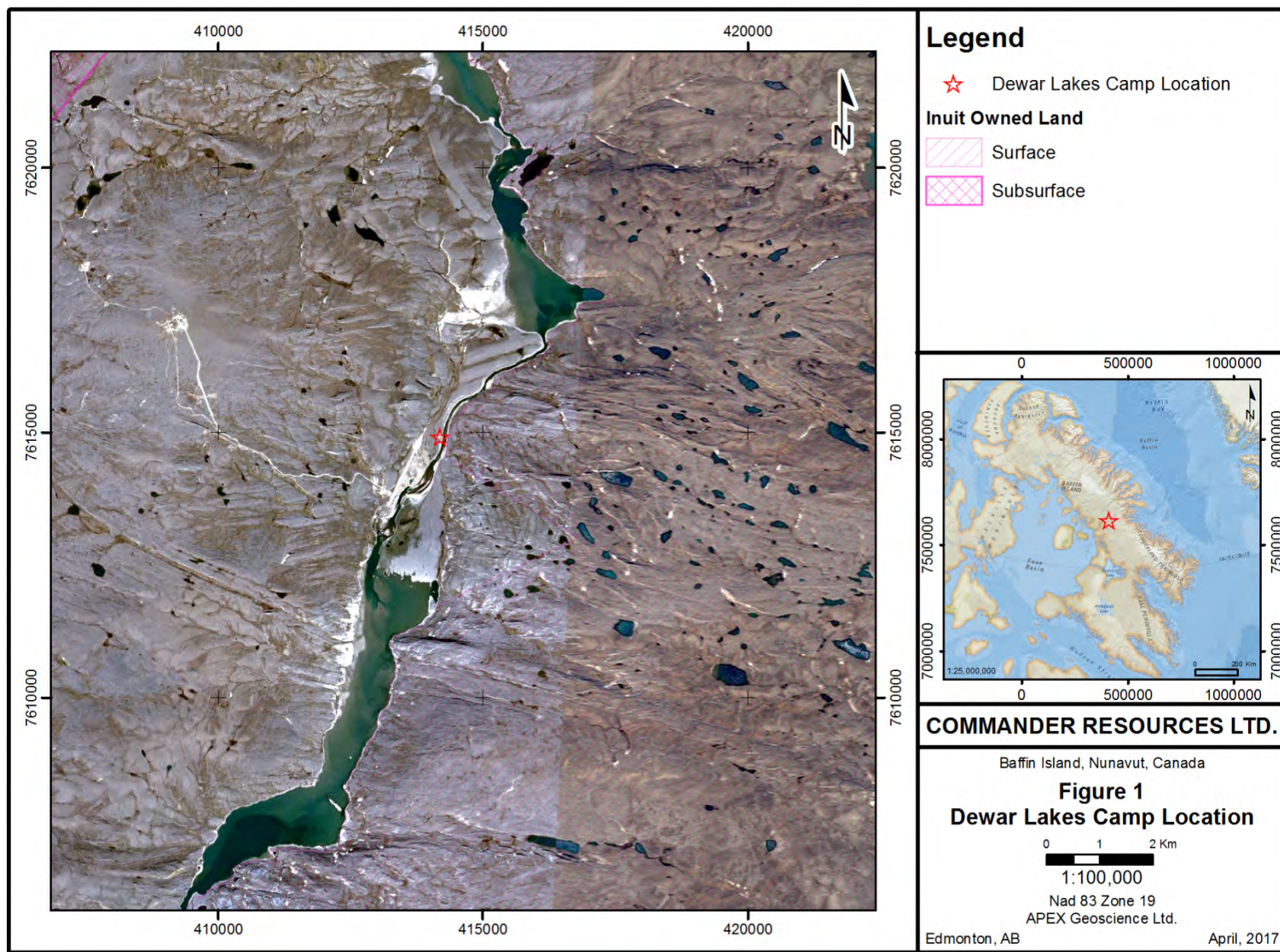
- Canadian Environmental Protection Act
- Environment Canada's Environmental Emergency (E2) Regulations
- Implementation Guidelines for the Environmental Emergency Regulations
- Canadian Standards Association (CSA) Z1600-14 - Emergency and continuity management program
- Environment Canada's Guidelines for the Preparation of Hazardous Material Spill Contingency Plans, 1990
- Fisheries Act
- Migratory Birds Convention Act
- Nunavut Waters and Nunavut Surface Rights Tribunal Act
- Transportation of Dangerous Goods Act
- Transportation of Dangerous Good Regulations
- National Fire Code of Canada
- Northern Land Use Guidelines
- Workplace Hazardous Materials Information System
- Guidelines for Spill Contingency Planning

### 7.2 Territorial

- Northwest Territories and Nunavut Spill Contingency Planning and Reporting Regulations
- Contingency Planning and Spill Reporting In Nunavut – A guide to the New Regulations
- Guideline for Industrial Waste Discharges in Nunavut
- Fire Prevention Act
- Environmental Protection Act
- Mine Health and Safety Act and Regulations
- Public Health Act
- Safety Act
- Nunavut Occupational Health and Safety Regulations
- Environmental Guideline for the General Management of Hazardous Waste

## Appendix 1: Figures





## Appendix 2: Daily Fuel Inspection Record

