

Defence Construction Canada

**Spill Contingency Plan – Updated
FOX-3, Dewar Lakes DEW Line Site
1BR-FOD0813**

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Revision Log

Revision #	Revised By	Date	Issue / Revision Description
1	EMS	Dec. 30, 2008	Draft
2	EMS	Feb. 16, 2009	Final Draft
3	EMS	March 20, 2009	Final

Table of Contents

Statement of Qualifications and Limitations

Distribution List

Revision Log

page

1. Introduction	1
1.1 Management of the Site.....	1
1.1.1 Roles and Responsibilities.....	1
1.2 Description of the Facility	2
1.2.1 Fuel Storage Facility.....	2
1.2.2 Sewage Lagoon	2
2. Spill Response Procedures.....	3
2.1 Reporting Procedures.....	3
2.2 Clean Up Action Plan.....	3
2.2.1 General Procedures	4
2.2.2 Procedures for Fuel Storage Areas.....	4
2.2.3 Procedures for Hazardous Material Storage Areas.....	5
2.3 Disposal.....	6
3. Site Map.....	7
4. Spill Response Training	8
5. Equipment Inventory.....	9

List of Tables

Table 1 – Contact List

Appendices

- A. Site Plan
- B. Contractor Contact List, Emergency Response Plan and Material Safety Data Sheets

1. Introduction

1.1 Management of the Site

The site is owned by the Department of National Defence (DND), as represented by Defence Construction Canada (DCC). The contract for the clean up of the site was awarded to Biogenie S.R.D.C. Inc. (Biogenie). A contact list is provided in Table 1.

Table 1 – Contact List

Organization	Address	Name	Number
Defence Construction Canada	Constitution Square, Suite 1720 350 Albert Street Ottawa, ON K1A 0K3	Douglas Craig, Environmental Officer	613-998-7288
		Steve Poaps, Associate Project Manager	613-998-9529
		Patricia O'Donnell, Contract Coordinator	TBD
		Sylvain Laberge	450-961-3535
Biogenie S.R.D.C. Inc.	1140 Levis Street Lachenaie, Quebec J6W 5S6		

Note: the camp has not yet been established at the site – phone numbers will be provided once the camp has been set up and communications are established.

1.1.1 Roles and Responsibilities

The contractor and all sub-contractors will be involved in spill response actions in the event of a spill during the construction activities at FOX-3. Their roles and responsibilities are described as follows:

- Ensure the response crew members are appropriately trained.
- Practise spill prevention by performing regular maintenance on all fuel systems and by using proper methods for handling of fuel products.
- Provide personnel, materials, and equipment necessary for adequate response to fuel and hazardous material spills.
- Establish communications and verbally report all spills to the DCC Contract Coordinator as soon as practical.
- Isolate and eliminate all ignition sources.
- Ensure safety and security at the spill site.
- Stop or reduce discharge, if it is safe to do so.
- Make every effort to contain the spill by dyking with earth or other barriers on land and containment booms on water.
- Assess potential for fuel/chemical recovery.
- Deploy on-site crews to mobilize pumps, empty 200 litre barrels, hand tools and absorbents to the spill site.

- Hire additional assistance, if required, from northern residents, local communities, and commercial spill response firms.
- If required, request assistance from the DND (through the DCC Contract Coordinator) and the Canadian Coast Guard.
- Follow all guidelines and regulations for disposal of spilled materials, associated debris, contaminated soil and water as established by appropriate government agencies.
- Assess potential terrain and wildlife disturbance, erosion and archaeological site disturbance in any areas to be affected by clean up operations and contact relevant authorities.
- Document all events/actions.
- Report the spill to the Spill Report Line and follow up with a written spill report. This report shall summarize the initial report information; confirmation of spill volume; actions taken; future remediation/monitoring requirements; and a sketch map and/or photographs of the spill area.
- For spills on water, immediately mobilize additional containment and clean up equipment in consultation with Environment Canada, and Fisheries and Oceans Canada if on-site equipment is inadequate. Close isolation valves to stop fuel flow, if required. Deploy light-weight booms and oil absorbent materials to protect environmental resources along the coastline, as applicable. Track the progress of the spill, if of unknown origin.

MSDS and other information on hazardous materials were provided by the contractor and are included in Appendix B.

1.2 Description of the Facility

1.2.1 Fuel Storage Facility

It is estimated that the camp operation will require a combined total of approximately 800,000 litres of diesel and 40,000 litres of gasoline, per year. Fuel will be stored in ISO-tankers and Arctic Terra Tanks and frame-supported Insta-berms in a location situated a minimum of 100 metres from any water body or drainage course. Fuel is supplied by the contractor.

1.2.2 Sewage Lagoon

The sewage lagoon has not yet been constructed, therefore the required capacity is not yet been defined.

2. Spill Response Procedures

2.1 Reporting Procedures

When reporting a spill to the 24 Hour Spill Report Line and completing the Spill Report Form, the following information shall be included:

- Date and time of the spill;
- Location of the spill and direction the spill may be moving;
- Name and phone number of a contact person close to the location of the spill;
- Type of contaminant spilled and quantity spilled;
- Cause of the spill;
- Whether the spill is continuing or has stopped;
- Description of the existing containment;
- Action taken to contain, recover, clean up and dispose of spilled material;
- Name, address and phone number of the person reporting the spill; and
- Name of owner or person in charge, management or control of the contaminants at the time of the spill.

In addition to providing a spill report to the Spill Report Line, a copy of the report is to be submitted to the INAC Water Resources Officer no later than 30 days after initially reporting the spill to the spill report line. A copy of the NU Spill Report Form is attached. The contact list is provided in Section 1.1

2.2 Clean Up Action Plan

In the event of a spill, protection of human health and safety is paramount. Contamination of personnel involved in a clean up is a real possibility, as is contamination of the surrounding workplace and environment.

The individual discovering a spill shall:

- Warn the people in the immediate vicinity and evacuate if necessary.
- Isolate or remove any ignition sources.
- Identify the spilled material, if possible, and take all safety precautions before approaching it.
- Locate the source of the spill.
- Attempt to stop the leakage and contain the spill, if safe to do so.
- Assess the likely size, extent and condition of the spill.
- Report to the DCC Contract Coordinator the spill location, type of material, volume and extent, status of spill (direction of movement), and prevailing meteorological conditions.
- In the event of a shoreline spill, provide information about the beach location, contaminated area, beach characteristics, presence of wildlife and archaeological sites that may be threatened.

Once the DCC Contract Coordinator has been contacted and arrives at the spill site, the following actions are to be taken:

- Assess the severity of the spill via direct observation and/or information from communications.
- Deploy equipment and personnel to initiate containment and clean up.
- Prepare the Spill Report Form.
- Notify all other pertinent parties, including the DND and other government agencies.

2.2.1 General Procedures

The environmental protection measures outlined in the following section are to be taken by all workers on site to reduce the chance of environmental impairment due to a spill, release or other incident. The following general clean up procedures shall apply for all spill areas:

- Wear protective clothing as required for handling spills.
- Contain spills on soil or rock by construction of earthen dykes using available material. If soil is not available, place sorbent material or a boom in the path of the spill. As the sorbent barrier becomes saturated, continually replace it. Fuel or other liquids lying in pools, trenches or in specially constructed troughs are to be removed with pumps, buckets or skimmers.
- If the ground is snow-covered, create snow dykes and line with a chemically compatible liner for containment and recovery of liquid.
- For fuels on water, deploy containment booms and recover as much fuel as possible with a work boat and skimmer if the area has less than 1/10 ice cover. If the area is ice infested, burn any fuel spills using igniters.
- Apply sorbents if necessary.
- Assess potential for disturbance of wildlife, fish and archaeological sites by spill or clean up operations and notify the relevant authorities.
- Notify environmental authorities to discuss disposal and clean up options.
- Conduct required clean up operations.
- Assess and appropriately treat any areas disturbed by clean up activities.
- Ensure the site has been completely restored and leave the site only when all work is finalized.

2.2.2 Procedures for Fuel Storage Areas

In order to prevent spills or accidents at fuel storage areas, the following procedures apply:

- Avoid sites that slope towards waterways or other environmentally sensitive areas, exhibit ponding or flooding, have high groundwater tables, and/or excessive seepage or ice-rich (thaw sensitive) soils.
- Avoid archaeological resources.
- Conduct fuelling and equipment lubrication in a manner that avoids spillage of fuels, oils, greases and coolants. When refuelling equipment, operators are to use leak-free containers, reinforced rip and puncture proof hoses and nozzles, and drip trays. Operators are to be in attendance for the duration of the refuelling operation and are to ensure that all storage container outlets are properly sealed after use.
- Store fuel in self-dyking containers, or position over an impervious liner and surround by an impervious dyke of sufficient height to contain not less than 110% of the capacity of the tank(s).
- Smoking is prohibited within 7.5 metres of the fuel storage facility. Provide appropriate signage.

- Inspect fuel storage facilities at least once each week for the duration of the project. Fire-fighting equipment will be made available for immediate access at each and every fuel storage facility.
- Store all barrels containing fuel and/or other hazardous materials in an elevated position either on their side with the bungs facing the 9 and 3 o'clock position or on pallets, upright, banded and encased in overpack containers.
- All barrels shall be individually identified. The label is to be to industry standards and should provide all information necessary for health and safety, and environmental purposes. Material Safety Data Sheets for all materials maintained in the construction camp will be available for all personnel.
- Treat all waste petroleum products, including used oil filters, as hazardous material and handle and dispose as per the requirements specified in the appropriate regulations.
- Conduct regular inspections of all machinery hydraulic, fuel and cooling systems. Repair leaks immediately.
- Pre-assemble and maintain emergency spill response equipment including at least two fuel pumps, empty 200 litre barrels and absorbent material sufficient to clean up a 1000 litre spill at all permanent fuel storage sites.
- Remove all barrels, redundant fuel storage sites and associated materials and equipment from the site at the conclusion of the work.

2.2.3 Procedures for Hazardous Material Storage Areas

Hazardous waste materials are wastes or materials that are designated as “hazardous” under Nunavut or Federal legislation; or as “dangerous goods” under the Transportation of Dangerous Goods Act (TDGA). The Canadian Environmental Protection Act (CEPA) regulates material containing PCBs at greater than 50 ppm. The hazardous material storage areas will be managed as outlined below:

- Hazardous waste materials may be encountered during sorting of site and demolition debris and during the excavation of landfills. Collect and sort hazardous materials using equipment suitable for the task.
- Locate the hazardous material processing area a minimum of 100 metres from the nearest archaeological site or water body, on ice poor, well drained soil, and as close to the location of work as possible.
- Control movement of vehicles and equipment between the hazardous materials processing area and work site to prevent the spread of potentially hazardous material along roadways.
- Store hazardous materials so that each storage area is separated from the nearest water body by a 30 metre buffer zone.
- The TDGA and the International Air Transport Association (IATA) Dangerous Goods Regulations govern the packaging and shipment of hazardous goods within Canada. If shipping out of Canada, Canadian regulations and the regulations of the destination country both apply. Requirements of the IMDGC must be addressed in international waters.
- Any material classified as hazardous by the TDGA must be accompanied by the appropriate TDGA shipping documents. The documents are to state the shipper, the receiver and all carriers involved in the transport of the shipment. Non-hazardous materials are also to be accompanied by a document indicating ownership and responsibility of the receiver.
- Package all hazardous material in accordance with the TDGA regulations.

2.3 Disposal

All soil impacted by fuel spills will be treated within the landfarm on-site. Details of the landfarm operations were provided in the 2007 Project Description. Any soils impacted by hazardous material will need to be packaged and transported off-site for disposal at a licensed facility. The packaging and shipping requirements for hazardous materials were provided in the 2007 Project Description. Soils impacted by sewage effluent do not require disposal and will be left in place.

3. Site Map

The camp site plan will be provided by the contractor prior to the start of work in late May or early June.

4. Spill Response Training

To be provided by the contractor.

5. Equipment Inventory

The list of equipment to be available on-site, emergency spill response kit contents are included in the Contractors' Emergency Response Plan, included in Appendix B.

Spill kits will be inspected by the Health and Safety Coordinator after each use and the contents replenished as necessary.

Appendix A

Overall Site Plan

General Notes:

1. ALL COORDINATES ARE REFERENCED TO NAD83 (CSRS), UTM ZONE 19N. ELEVATIONS ARE REFERENCED TO MEAN SEA LEVEL, RELATIVE TO GEOID MODEL CANADIAN HT2.0.
2. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
3. ARCHAEOLOGICAL FEATURES LOCATED AS PER ARCHAEOLOGICAL STUDY AT FOX-3, DEWAR LAKES, BY THOMSON HERITAGE CONSULTANTS.
4. ALL NON-HAZARDOUS DEBRIS TO BE PLACED IN NON-HAZARDOUS WASTE LANDFILL.
5. REFER TO TABLE 02219-1 IN SPECIFICATIONS FOR DESCRIPTION OF DEBRIS AREAS.

Legend:

- BODY OF WATER
- APPROXIMATE EXTENT OF DEBRIS AREAS
- APPROXIMATE EXTENT OF BORROW AREAS
- APPROXIMATE LOCATION OF PROPERTY BOUNDARIES

No.	DATE	REVISION	REVISION	APPR.



THE ASSOCIATION OF
PROFESSIONAL ENGINEERS,
GEOLOGISTS AND GEOPHYSICISTS
OF THE NORTHWEST TERRITORIES
PERMIT NUMBER
P 007
UMA ENGINEERING
LTD.

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SCALE - ECHELLE 200 100 0 200 400 600m

PROJECT - PROJET
FOX-3 DEWAR LAKES

DEW LINE CLEAN UP

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CANADA 2007, AS REPRESENTED BY THE
MINISTER OF NATIONAL DEFENCE.

TRADE - METIER SITING DATE 2007-08-24

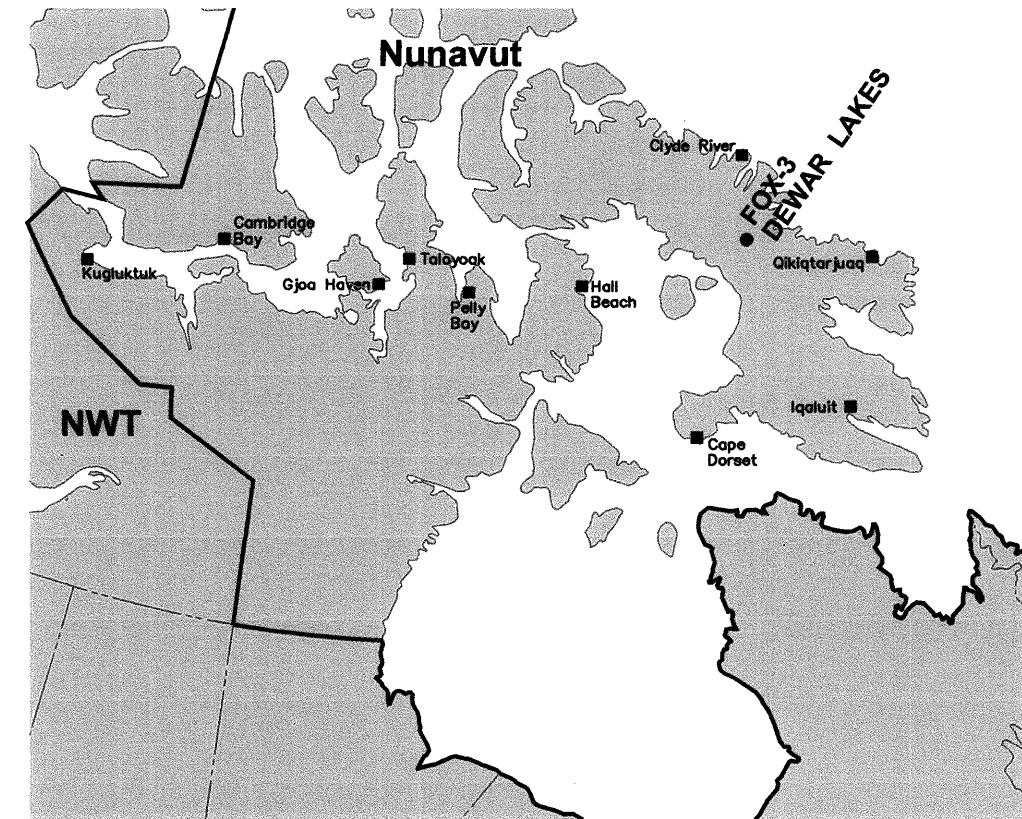
SUBJECT - SUJET

OVERALL SITE PLAN

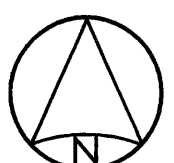
PRODUCTION	CONCURRENCE - ASSENTMENT
DESIGNED ETUDIE TME/DTM	DES OFF AGENT CONCEPT
DRAWN DESSINE CAE	SECT HD CHEF SECT
CHECKED VERIFIE RRM	DES MGR GEST CONCEPT
COORDINATION SMS	REVIEWED - REVU

DWG. NO. - DESSIN NO.
H-D67/1-9101-101

Canada



LOCATION OF DEWAR LAKES WITHIN NUNAVUT TERRITORY
N.T.S.



DND RESERVE BOUNDARY
(REF. DWG. S2-0443, DEPT.
OF THE AIR FORCE, USAF)

ARCHAEOLOGICAL
FEATURES

MIDDLE SITE AREA

AIRSTRIp AREA

7 613 000 N

7 613 000 N

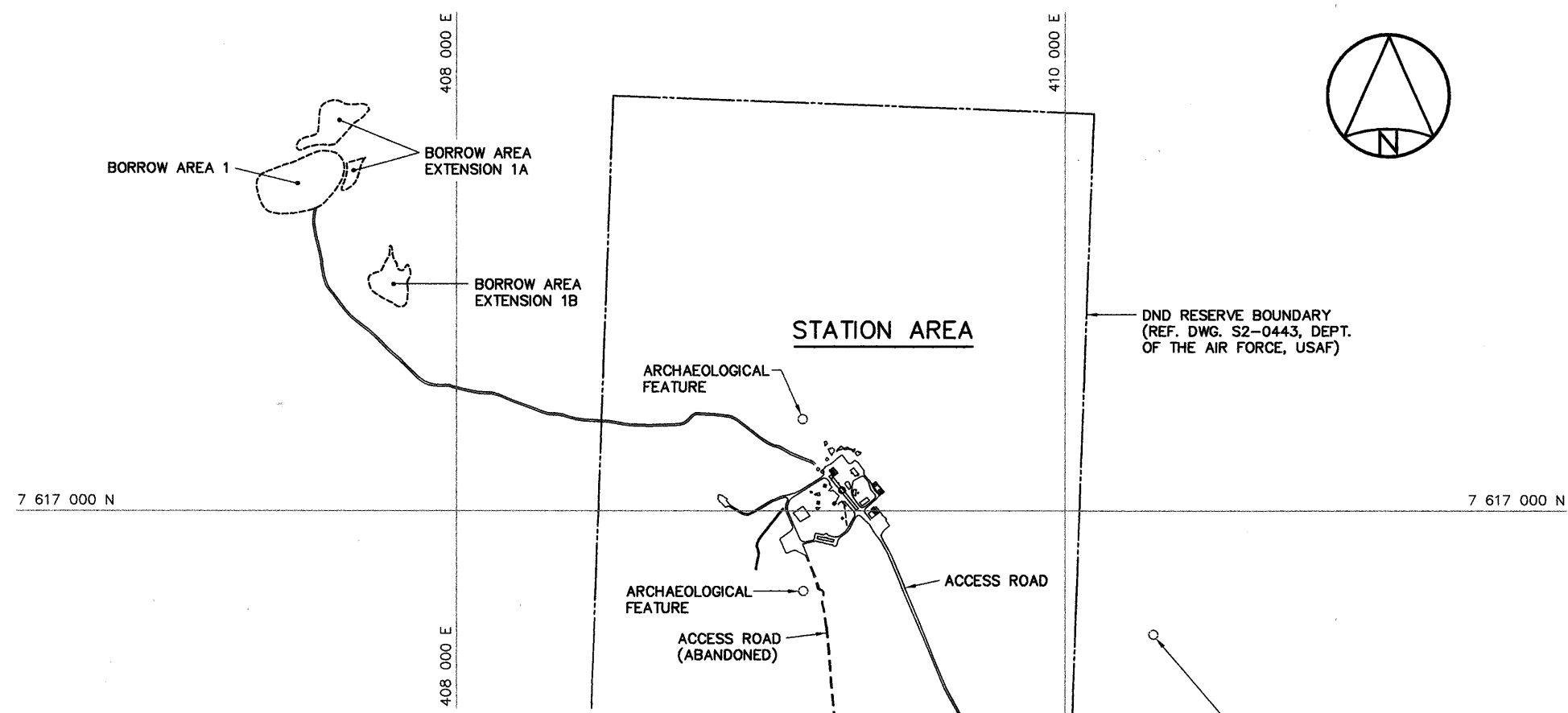
MATCH LINE

SEE THIS DWG.

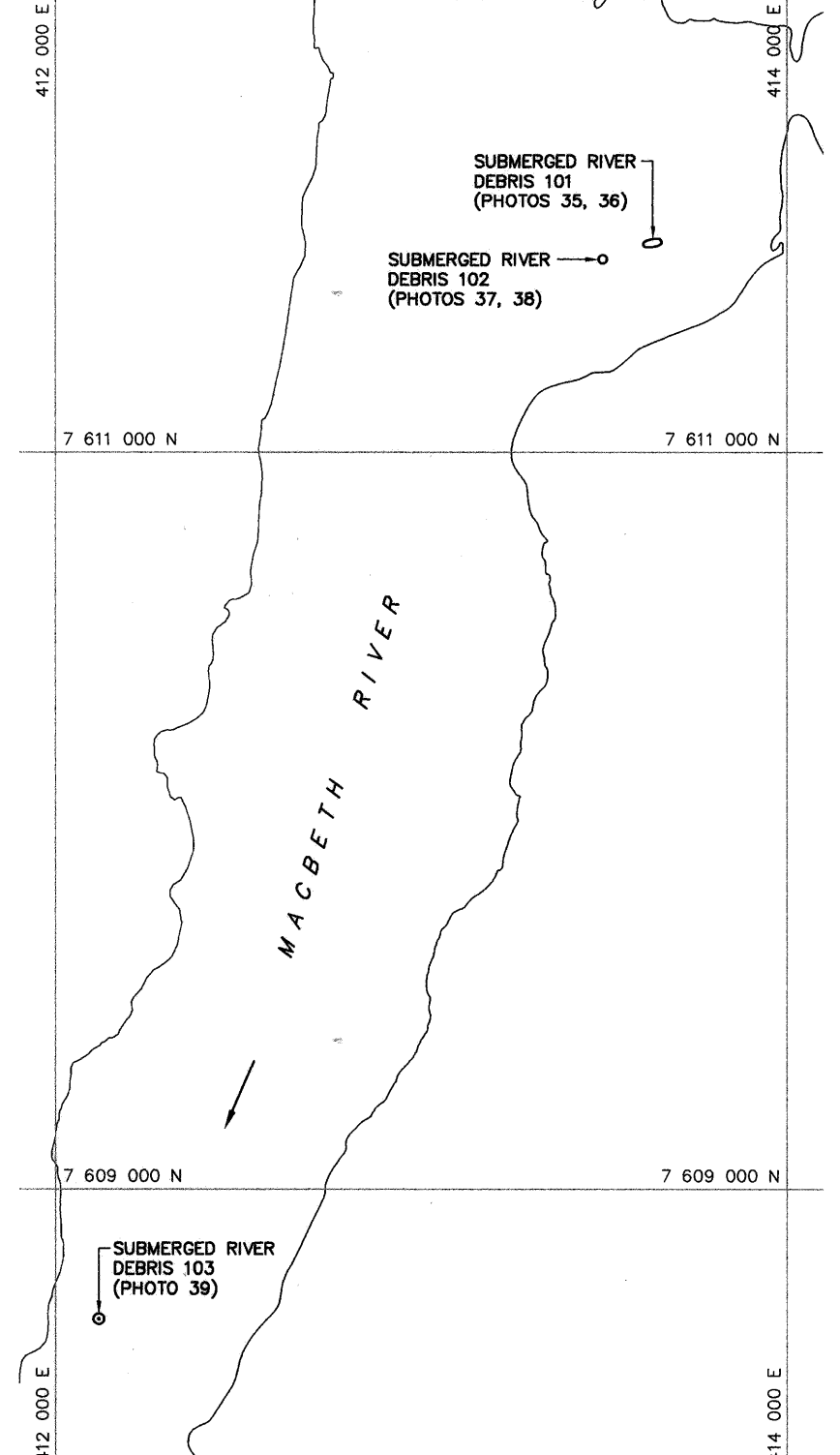
POTENTIAL SOURCES FOR GRANULAR MATERIALS **

BORROW AREA	GRANULAR TYPE (SEE SECTION 02226 IN SPECIFICATION)					
	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6
1, 1A, 1B			✓		✓*	✓
2		✓	✓			✓
3, 3A, 3B		✓	✓			✓
3C				✓		
4, 4A, 4B	✓	✓*	✓			
5					✓*	
5A		✓	✓			✓
6				✓		
7	✓					

- * - LIMITED QUANTITIES OR EXTRA PROCESSING EFFORT REQUIRED.
- ** - REFER TO FOX-3 2006 GEOTECHNICAL REPORT, DATED JUNE 2007.



MATCH LINE SEE THIS DWG.



412 000 E

414 000 E

7 609 000 N

7 609 000 N

408 000 E

410 000 E

7 617 000 N

7 617 000 N

412 000 E

414 000 E

7 615 000 N

410 000 E

412 000 E

414 000 E

Appendix B

Contractor Emergency Response Plan

**CLEAN UP AND RESTORATION OF THE DEW
LINE SITE AT FOX-3**

Dewar Lakes, Nunavut

EMERGENCY RESPONSE PLAN

(O/Ref.: CD8178) (Y/Ref.: DLCFOX3)

DEFENCE CONSTRUCTION CANADA

February 2009



CLEANUP AND RESTORATION OF THE DEW LINE SITE AT FOX-3

EMERGENCY RESPONSE PLAN

Dewar Lakes, Nunavut

(O/Ref.: CD8178) (Y/Ref.: DLCFOX3)

DEFENCE CONSTRUCTION CANADA

February 2009

Written by: Nancy Davis
Project Coordinator

Verified and approved by: Sylvain Laberge
Project Director

TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	CONTENT.....	1
1.2	SITE DESCRIPTION	2
2	MATERIALS DESCRIPTION	3
2.1	MATERIALS IMPORTED TO THE SITE	3
2.2	MATERIALS PRESENT IN FOX-3	4
2.3	FUEL MANAGEMENT	5
2.3.1	Monitoring	5
2.3.2	Environmental Protection and Fuel Management.....	5
3	IDENTIFIED SCENARIOS	6
4	ROLES AND RESPONSABILITIES	7
4.1	DCC REPRESENTATIVES	7
4.2	INCIDENT COMMANDER.....	7
4.3	HEALTH AND SAFETY OFFICER.....	8
4.3.1	Employees	9
4.4	EMERGENCY CONTACT LIST	9
5	EMERGENCY RESPONSE PROCEDURES	10
5.1	GASES RELEASE, SOLID OR LIQUID SPILL	10
5.1.1	Prevention	10
5.1.2	Response Procedure	11
5.1.3	Equipment.....	12
5.1.4	Reporting	13

TABLE OF CONTENTS (CONT.)

5.2	FIRE.	13
5.2.1	Notification	13
5.2.2	Firefighting Equipment	13
5.2.3	Smoking and Fire Rules	14
5.2.4	Muster Area	14
5.2.5	Record Keeping.....	14
5.3	VEHICLE ACCIDENT.....	15
5.4	MEDICAL EMERGENCY.....	15
5.4.1	Response Procedures and Reporting.....	15
5.4.2	On-Site Medical Services.....	16
5.4.3	Early Defibrillation Program	16
5.4.4	Off-Site Medical Services	16
5.4.5	Prevention	16
5.4.6	First Aid Equipment.....	17
6	COMMUNICATIONS	19
6.1	AT FOX-3	19
6.2	DURING CAT-TRAIN	19
7	TRAINING AND EXERCISES	20

LIST OF TABLES

Table I: Possible Emergency Situations Identified for the Project	6
Table II: Spill Kit Description and Locations	12
Table III: Location of Extinguishers On Site	14
Table IV: Medic’s First Aid Equipment.....	17

LIST OF APPENDICES

APPENDIX A Material Safety Data Sheets
APPENDIX B Non-hazardous and Hazardous Materials Inventory
APPENDIX C Organizational Chart
APPENDIX D Emergency Contact List
APPENDIX E Evacuation Plan
APPENDIX F Spill Report
APPENDIX G Emergency Response Procedures
APPENDIX H Early Defibrillation Program
APPENDIX I Detailed Contents of Medic’s First Aid Equipment

1 INTRODUCTION

1.1 CONTENT

In April 2008, Biogenie S.R.D.C. Inc. (Biogenie) was awarded the contract to clean-up the FOX-3 DEW Line site by Defence Construction Canada on behalf of the Department of National Defence. Since Dewar Lakes is in a remote northern location, response time from emergency response authorities is expected to be lengthy. This Emergency Response Plan was prepared in order to minimize or eliminate any effects to human health and/or damage to the environment should any foreseeable emergency situation arise. It was developed in accordance with CSA Z731 *Emergency Planning for Industry, A National Standard of Canada* and the *Guidelines for Emergency Response Planning, Northwest Territories Water Board, January 1987*.

As required this document presents:

- A description of the materials that will be transported to site or handled on site as part of the cleanup activities.
- A list of possible on or off-site emergency situations associated with the project.
- The roles and responsibilities of the Project Team.
- The reporting and communication procedures.
- Action procedures in case of emergency.
- Available resources and training.

It is important to note that this plan is an integral part of the Health and Safety Plan. References are made to this document.

1.2 SITE DESCRIPTION

Dewar Lakes (FOX-3) is located on Central Baffin Island at 68° 38' 99" N 71° 13' 76" W, approximately 230 km west of Clyde River. The site is located in Nunavut, Qikiqtaaluk District, under the jurisdiction of the Qikiqtani Regional Council. The main site is at 550 m above sea level and the airstrip is located at about 4 km away. The total area encompassed by the DND reserve is approximately 1,600 hectares. The site was an auxiliary DEW Line station which was decommissioned in 1989 after construction of the new FOX North Warning System (NWS) radar site.

As at most auxiliary sites of the DEW Line, this station is composed of the following buildings and structures:

- Module Train
- Warehouse
- Garage
- Vehicle Storage Shed
- POL Pumphouse
- Radar Tower, Radome, Communication equipment, etc.
- Fuel tanks
- Airstrip equipment

In addition, debris including barrels and old equipment are scattered around the site and in former landfills. These debris and buildings must be collected and managed as part of the site cleanup.

To access the site, material and equipment will have to be transported by CAT-Train from Longstaff Bluff (FOX-2) on an overland route of approximately 185 km.

2 MATERIALS DESCRIPTION

This section details the materials that will be handled during the course of the project. All Material Safety Data Sheets (MSDS) for these products are available in the Health and Safety Plan. A summary of the MSDS including the chemical name, hazard classification, WHMIS label, etc. are presented in Appendix A.

Under the *Safety Act*, Workplace Hazardous Material Information System (WHMIS) regulations will apply to the handling and storage of hazardous material. Relevant MSDS will be kept current and available on-site. Containers and pipelines will be properly labeled following the WHMIS guidelines.

2.1 MATERIALS IMPORTED TO THE SITE

In order to perform the clean-up activities, different chemicals will be brought to the site. These products are associated with camp operation and cleaning, water treatment, drum and debris cleaning, operation and maintenance of vehicles and heavy machinery and with blowtorching and welding. The imported hazardous materials are:

- Gases (acetylene, argoshield, oxygen)
- Flammable liquids (acetone, diesel fuel, fuel oil, gasoline, hexane, kerosene)
- Oxidizer (ammonium nitrate)
- Miscellaneous dangerous goods (aluminum sulphate)

In addition, non-hazardous products such as activated carbon, lubricant, oil and grease will also be brought to the site. Appendix B presents the non-hazardous and hazardous materials inventory including a description of how and where it is contained during transport and in storage at FOX-3. In summary, diesel fuel and gasoline will be stored in the lined and bermed fuel storage area, compressed gases will be stored in cylinder cages, oil, grease and other lubricants will be stored in an ISO barge container equipped with a catch basin containing absorbent material.

Ammonium nitrate and aluminum sulphate will also be stored in an ISO barge container to protect these products against weather.

2.2 MATERIALS PRESENT IN FOX-3

The hazardous materials to be removed, containerized and transported from FOX-3 to FOX-2 as part of the cleanup are mainly materials regulated under the Canadian Environmental Protection Act. Concentrations of certain parameters in mainly soil and paint make these products hazardous and require special handling. The inventory of hazardous substances includes the following products:

- Lead batteries
- Solvents
- PCB containing oil
- Petroleum distillates, including free products that may be recovered during excavation and from demolition of former fuel tanks
- PCB contaminated materials (soil, paint and any material containing PCBs in concentrations greater than 50 ppm)
- Electrical equipment including, capacitors, transformers and regulators which contain PCBs at concentrations in excess of 50 ppm

Other materials such as asbestos containing insulation will have to be handled as part of the work. Prior to the removal of asbestos-containing insulation material, an Asbestos Abatement Plan (AAP) and an official notification will be presented to the Engineer and to the Prevention Services of the Workers Compensation Board of the Government of Nunavut (WCB). No work will commence prior to having received the approval from WCB. Asbestos recovered on site will be double bagged and placed in the non-hazardous waste landfill constructed in FOX-3.

Dismantled amended painted material with concentrations exceeding lead or PCB criteria will be sized to fit within the appropriate containers. Material will be securely placed to prevent movement during normal transport conditions. ISO Barge containers equipped with drip trays and additional bracing will be filled with larger contaminated demolition material. Weight will

be distributed evenly over the floor of the container so that the centre of gravity is close to the mid-length and below the half-height of the container. Container openings will be sealed.

Other types of hazardous waste will be packaged and containerized according to the *TDG Act and Regulations*, depending on the type of material to be transported. Batteries will be packaged in sealed leak-proof containers with suitable absorbent material. Hazardous liquids, including solvents, sludge, and petroleum distillates not meeting the discharge criteria will be containerized in drums according to the *TDG Act and Regulations*.

2.3 FUEL MANAGEMENT

Arctic diesel fuel will be transported in CSC-approved ISO tanks. The volume of each tank varies from 19,900 to 21,290 L. Gasoline will be transported to the site in 205-litre sealed barrels.

2.3.1 Monitoring

Fossil fuel burning equipment will be visually inspected weekly and during refueling operations. Keys from any equipment requiring maintenance or repairs will be removed and placed in a locked compartment accessible only by the mechanic to avoid it from being used until necessary repairs are completed.

2.3.2 Environmental Protection and Fuel Management

Fuel and gasoline will be stored in accordance to the proposed methodology detailed in the Work Methodology Plan, presented to DCC. Refueling and fuel transfer, if necessary, will be done only by qualified personnel. A 950-L capacity ULC-approved mobile fuel tank will be used for refueling heavy machinery.

For the refueling of heavy equipment, generators, pumps, ATVs and tools, drip pans will be used to prevent spills, when required. In addition, an automatic stop-fill valve will be used.

3 IDENTIFIED SCENARIOS

The potential emergency situations identified for the project include chemical spills, fires, vehicle accidents, medical emergencies, and the presence of aggressive wildlife within the camp or working area.

Table II provides details of the potential emergency situations identified for the project.

Table I: Possible Emergency Situations Identified for the Project

Emergency Event	Description
Gases release	Uncontrolled release of gases (acetylene, oxygen, propane, Argoshield)
Liquid or solid spill	Spill during fuel or gasoline transfer
	Breakdown of pipeline or storage tank
	Spill of oxidizer (ammonium nitrate)
	Spill of corrosive material (aluminum sulphate)
	Spill of flammable liquids (acetone, hexane, gasoline, diesel fuel, fuel oil, kerosene)
	Spill of other petroleum products (hydraulic oil, motor oil, grease, etc.)
	Spill of polychlorinated biphenyls (PCB)
Fire	Fuel or equipment fire in vicinity of PCB contamination
	Fuel or equipment fire in areas not associated with PCB contamination
Vehicle accident	Accident involving pick-up truck, heavy equipment, ATVs, etc.
Medical emergency	Injury, aggravated medical condition, death during Site Cleanup
	Injury, aggravated medical condition, death during CAT-Train
Presence of aggressive wildlife	Polar bears

4 ROLES AND RESPONSABILITIES

Appendix C provides an organizational chart of the key personnel involved in the project. This section describes the roles and responsibilities of the personnel and subcontractors involved in the site remediation of the FOX-3 DEW Line Site in Dewar Lakes, Nunavut.

4.1 DCC REPRESENTATIVES

The site Engineer, who represents Defence Construction Canada, is responsible to ensure that the clean-up activities are performed according to the contract and the applicable legislations. If the emergency situation should necessitate the involvement of the North Warning Office for a specific requirement (e.g., site evacuation of personnel), the communication line to NWO will be maintained by the DND/DCC Project Manager or DCC Site Engineer. The DCC Project Manager, Site Engineer, and Engineer's representatives will be informed of any emergency situation that may arise during the course of the project.

4.2 INCIDENT COMMANDER

All emergency situations will be reported to Biogenie's Site Superintendent who will, in turn, report them to the Engineer as well as the relevant government agency. Response procedures will be immediately implemented to limit environmental and health and safety impacts.

In the case of a medical emergency, the medic will report to the Site Superintendent, the Project Manager and the Engineer. The medic will also coordinate off-site evacuation of the injured employee. When the medic and the work crew are not on site, off-site evacuation will be coordinated by the Site Superintendent.

The Site Superintendent will act as Fire Captain in the case of an emergency fire situation. He will designate a gathering area upwind of the fire, appoint personnel to extinguish the fire and/or

remove a source tank, collect runoff water, and contact the Nunavut Fire Department as described in the Emergency Contact List (see Appendix D of this document).

In addition his role includes:

- Communicating (lead role) and promoting information regarding the Biogenie Emergency Response Plan.
- Possessing thorough knowledge of the procedures for the Biogenie Emergency Response Plan.
- Possessing thorough knowledge of the evacuation areas, means of exit, fire extinguisher locations, and fire pull stations.
- Communicating and promoting awareness of the Biogenie Emergency Response Plan.
- Coordinating scheduling with the Site Safety Officer to cover absences.
- Planning and executing emergency response drills in accordance with regulations.
- If required, making sure that a staff list and visitor sign-in sheet is maintained.
- Attending regular scheduled meetings and training sessions relating to the Biogenie Emergency Response Plan.
- Assisting in implementing changes and revisions to the Biogenie Emergency Response Plan.

4.3 HEALTH AND SAFETY OFFICER

In the event that the Site Superintendent cannot act as the incident commander as per 4.1, the Health and Safety Officer will take over this role. During any emergency situation, the Health and Safety Officer will assist the Site Superintendent. His role also includes:

- Assisting in communicating and promoting information regarding the Biogenie Emergency Response Plan.
- Reporting directly to the Site Superintendent.
- Possessing thorough knowledge of the procedures for the Biogenie Emergency Response Plan.
- Possessing thorough knowledge of their specific evacuation area, means of exit, fire extinguisher locations, and fire pull stations.
- Ensuring that a staff list and visitor sign-in sheet is maintained for their specific area.
- Assisting in the planning and execution of emergency response drills.

- Attending regular scheduled meetings and training sessions relating to the Biogenie Emergency Response Plan.
- Acting as the primary contact for the Site Superintendent.
- Completing and reporting a head count for the Site Superintendent. Include information about any people who may still be inside the building and the location or nature of the hazard or fire.

4.3.1 Employees

All emergency situations will have to be identified and reported by site workers to the Biogenie team representatives. Communications with all team members will be maintained during the response procedure. Through training, Biogenie will make sure that each employee:

- Be familiar with the procedures of the Biogenie Emergency Response Plan and where the muster area(s) are located.
- Become familiar with the work area, the nearest means to exit, and the locations of fire alarm pull stations.
- If he/she has been assigned a specific duty to perform during an emergency situation, remain familiar with the procedures and responsibilities involved.
- Establish a “buddy” system with a fellow employee so someone knows where he/she is in the event of an emergency.
- Immediately report any observed potential dangerous situations to the Site Safety Officer and their immediate supervisor.
- Identify themselves (and any visitors/clients they may have) to the Site Superintendent or the Health and Safety Officer in charge of the head count at the appointed muster area.
- Identify any missing co-workers, visitors, clients, or occupants.
- Do not leave the muster area(s) until the Site Superintendent has given authorization.

4.4 EMERGENCY CONTACT LIST

The Emergency Response Plan also includes an Emergency Contact List with names of equipment suppliers, emergency carriers, hospitals, health care and environmental agencies as well as project personnel. This list will be posted in front of each telephone on-site along with specific emergency procedures to be followed in specific situations such as aggressive wildlife encounters, medical emergency or fire. The Emergency Contact List is presented in Appendix D.

5 EMERGENCY RESPONSE PROCEDURES

Emergency response procedures have been elaborated for each identified scenario. Appendix E presents the location of protective gear and emergency response equipment in the construction camp area. It is important to note that the emergency response procedures for chemical spills was elaborated based on the 2008 Emergency Response Guidebook produced by the U.S. Department of Transportation, Transport Canada and the Secretariat of Transportation and Communications.

5.1 GASES RELEASE, SOLID OR LIQUID SPILL

Accidental spills may take the form of solid, liquid or gaseous releases into the environment. Because of the presence of different substances on site, an inventory has been taken of all substances that may have adverse effects on the environment. This inventory is available in Appendix B and will be updated monthly.

To help respond to a chemical spill of the substances present on site, a list of adequate protective gear and basic emergency response measures have been prepared in Appendix A. The Health and Safety Plan provides MSDS sheets of every substance on site.

5.1.1 Prevention

Various chemical products will be used during the FOX-3 site remediation project. Biogenie will take every possible precaution to minimize the likelihood and limit the potential impact of hazardous material spills. With the exception of the large volume of diesel and gasoline, which is protected by lined containment, most hazardous products will be stored and used in small quantities. It should be noted that hazardous material will be transported in compliance with the *TDG Act and Regulations*.

Every precaution will also be taken to prevent and minimize the likelihood of a spill. During winter fuel transportation, spill kits, pumps and a spare tank will be available to transfer products

in the event of a spill or leak. Visual inspection will be performed periodically. However, should a spill occur, emphasis will first be placed on human health. Any person detecting a spill will take every safety precaution and wear adapted protective gear prior to approaching the spill area.

Biogenie intends to use twelve (12) ISO tanks of approx. 21,000 litres capacity each for the transportation of fuel in FOX-3. These tanks are insulated and designed for transportation purposes. They have successfully been used for the CAM-F and CAM-5 cleanup projects. It is expected that 250,000 litres of fuel will be necessary to complete the CAT-Train.

5.1.2 Response Procedure

In the event of a spill, the first person noticing the incident shall:

- Isolate or eliminate all sources of ignition and identify the spilled material, if possible.
- If possible stop the source of the spill.
- Warn people, isolate and/or evacuate the area, as necessary.
- Report the following to the Site Superintendent:
 - the location of the spill;
 - the known or suspected time of the spill;
 - the substance spilled;
 - the estimated volume spilled;
 - the cause of the spill;
 - the flow direction of the spill.
- Ensure adequate use of spill response equipment.
- Apply emergency response procedures as specified in Appendix G.
- Document all events and measures taken.

Depending on the physical location of the spill, specific supplemental precautions will be taken with regards to the spill response procedures.

➤ *On Land*

- Prevent dispersion in drainage system and ditch.
- Contain material with sorbent booms, dyke of snow or earth.
- Remove small spills with sorbent pads and dig by hand the impacted soil.

➤ *Muskeg*

- Ensure integrity of marsh or vegetation.

- Remove free-phase product with pumps and skimmer and low pressure point equipment.
- Minimize damage caused by equipment.

➤ ***Snow and Ice***

- Prevent dispersion into waterways by containment with snow or other material.
- If necessary, pump water surface to recover diesel under ice.
- Remove minor spills with sorbent pads.

➤ ***On Water***

- Contain spill as close to release point as possible.
- Use sorbent booms to contain free-phase product.
- Use skimmer or sorbent pads to recover free-phase product.
- Do not deploy personnel or equipment on wetlands.

The Site Superintendent will immediately notify the Engineer of the occurrence of a spill. A spill report will be produced as per section 5.1.4.

5.1.3 Equipment

A spill kit will be present at each activity area where there is a chance of a liquid or solid spill. In addition, absorbent materials and pads will always be available in pick-up trucks and in the mechanic truck. These spill kits are described in Table II hereafter.

Table II: Spill Kit Description and Locations

Spill Kit	Location of spill kit	Contents
Liquid spill (petroleum products, sludge, contaminated water)	Fuel storage area	<ul style="list-style-type: none"> • Four bags (10 kg each) of loose absorbent material (3M PowersorbTM, vermiculite, or equivalent)
	Camp area (generators)	<ul style="list-style-type: none"> • Four booms containing absorbent material (3M PowersorbTM or equivalent)
	POL storage container	<ul style="list-style-type: none"> • Twelve pads of absorbent material (3M PowersorbTM or equivalent)
	Refueling equipment	<ul style="list-style-type: none"> • Five heavy-duty disposable bags
	CAT-Train fuel hauling equipment	<ul style="list-style-type: none"> • Two sets of protective clothing and equipment including chemical resistant gloves, a half-face respirator and cartridges, goggles, disposable coveralls (TyvekTM or equivalent)
	Vehicle Maintenance Area	<ul style="list-style-type: none"> • A container for storing the above

5.1.4 Reporting

Spills or accidents will immediately be reported to Biogenie's Site Superintendent. A written spill report will be submitted to the Engineer within 24 hours of the incident. The spill report form is included in Appendix F. If more than 70 L of liquids or solids are spilled into the environment, the Water Resources Officer, Nunavut District, Nunavut Region, will immediately be notified by Biogenie's Site Superintendent. The spill will also be reported to the NWT/NU 24-hour spill reporting line.

5.2 FIRE

This section describes Biogenie's fire plan and includes a list of firefighting equipment, identifies the gathering area, sets smoking and fire rules and details record keeping procedures.

5.2.1 Notification

In the event of a fire, the DCC Site Engineer will be notified immediately via the two way radios.

5.2.2 Firefighting Equipment

Numerous portable extinguishers are available on site to handle small accidental fires resulting from activities such as power tool use, welding, etc. Biogenie also has a water truck and fire pump on hand to handle larger fires. A water reserve of approximately 20,000 liters will be installed near the Construction Camp during the Cleanup Activities. Two (2) fire fighting suits with self contained breathing apparatus (SCBA) will be available on site. Appendix E shows the location of the equipment in the Construction Camp. The firefighting tools and their locations for the entire site are listed in Table III.

Table III: Location of Extinguishers On Site

Location	Required Tool(s)
Dozer, Challenger, motor vehicle, trucks, AWD tractor, loader, excavator	5 lbs ABC fire extinguisher
Mechanic truck	10 lbs ABC fire extinguisher or larger
During interior demolition of buildings	2 x 10 lbs ABC fire extinguisher
Refueling area and refueling truck	2 x 10 lbs ABC fire extinguisher
Vehicle maintenance area	10 lbs ABC fire extinguisher or larger
Storage ISO containers (haz and non-haz materials)	10 lbs ABC fire extinguisher
Camp, Laboratories and Office buildings,	5 lbs ABC fire extinguishers, smoke detectors and two (2) fire fighting suits

5.2.3 Smoking and Fire Rules

As detailed in the Camp Rules smoking will only be allowed in designated areas outside.

5.2.4 Muster Area

The muster area is shown on the Emergency Evacuation Plan in Appendix E. This will be posted inside the camp.

5.2.5 Record Keeping

In the event of a fire, the incident will be recorded on Biogenie's Industrial Accident or Potential Risk Report Form 1450-FO17. This form will be submitted to the DCC Site Engineer within 24 hours of the incident and can be found in the Health and Safety Plan.

5.3 VEHICLE ACCIDENT

Operators will be qualified to use machinery. In the event of an accident, it will be recorded on Biogenie's Industrial Accident or Potential Risk Report Form 1450-FO17 available in the Health and Safety Plan. This form will be submitted to the DCC Site Engineer within 24 hours of the incident. The training records and qualifications of field personnel will be kept in the Health and Safety Plan.

5.4 MEDICAL EMERGENCY

Medical emergencies may take the form of a work-related injury or an aggravated medical condition. In the event of such an emergency, the work in the affected area will stop. The emergency response/treatment personnel and the nearest supervisor will converge to the area and employees not involved in the response will move to a safe location. The incident will be evaluated by the emergency personnel, which will implement the necessary measures to be taken.

In case of a serious accident, the Site Superintendent and medic will immediately be contacted through the mobile radio unit. The medic will administer first-aid if necessary. Transportation to the nearest hospital will be arranged if necessary.

5.4.1 Response Procedures and Reporting

The Worker Injury Emergency Response Procedures are presented in schematic form in Appendix G.

In the event of an accident, it will be recorded on Biogenie's Industrial Accident or Potential Risk Report Form 1450-FO17 available in the Health and Safety Plan. This form will be submitted to the DCC Site Engineer within 24 hours of the incident.

5.4.2 On-Site Medical Services

An adequate number of staff and local employees will hold valid first-aid certification to comply with the *Nunavut Safety Act Regulations*. Also, an on-site medic will be present throughout the project to direct emergency medical services. Several first-aid kits as well as sick quarters will be on-site and their locations will be posted inside the Camp.

It is important to note that Biogenie's supervisory staff as well as most of its operators have completed their first responder certification in case of a medical emergency.

5.4.3 Early Defibrillation Program

A letter from the medical director of the subcontractor retained to provide medical services for the FOX-3 project, Frontier Medical Services, is included in Appendix H as well as a guideline for of AED training for the operation, maintenance and reporting procedures in the use of AED.

5.4.4 Off-Site Medical Services

For the entire duration of the project, the appointed medic will maintain communication with the medical services located in Hall Beach should an emergency situation rise. In addition, air ambulances can be contacted at all times if necessary.

5.4.5 Prevention

Applicable prevention instructions for high-risk work have been elaborated and will be followed by employees. These procedures are part of the Health and Safety Plan. The WOS will ensure that employees understand the importance that Biogenie accords to working in a safe and healthy environment including the proper use of provided PPE.

5.4.6 First Aid Equipment

During the CAT-train, heavy machinery used for hauling will be equipped with a standard first aid kit. On-site, heavy machinery (excavators, loaders, dump truck, challengers, mechanic truck, farm tractor) and pick-ups will be equipped with a standard first aid kit. Another first aid kit will also be installed in the Kitchen Area of the Construction Camp. During the site cleanup operations in FOX-3 a more extensive list of first aid equipment will be available to the on-site medic (see Table IV). A complete list of the contents of the Medic's kit is presented in Appendix I.

Table IV: Medic's First Aid Equipment

Equipment	Quantity
Trauma Kit	1
Oxygen Kit	1
Spinal Kit	1
Defibrillator	1
Documentation Kit	1
Multimedia Kit	1
Medication and Supplies Kit	1
Intubation Kit	1

5.5 WILDLIFE ENCOUNTER

Because the work is being carried out in a remote area, it is possible that aggressive wildlife could be encountered. Throughout the work season, wildlife monitors will assess the work areas and the site to make sure the work areas are kept safe. During the CAT-train, wildlife monitors will travel with every load. In case of a wildlife encounter that presents a potential hazard, the following actions will be taken:

- Use of a vehicle, noise maker and, if necessary, a firearm to frighten the animal.
- Wildlife monitors will be contacted to alert them of the problem.
- Bear bangers and rubber bullets will be used. The animal will be shot only if it directly threatens human life. Shooting will only be considered as a last resort.

- If a bear is to be shot, the task will be assigned to the wildlife monitor.
- The animal's death will be reported to the wildlife officer, and the carcass will be disposed of upon instructions from the wildlife officer.

Biogenie will ensure that wildlife will not be subjected to any unnecessary disturbances or harassment during the course of work. During work season, wildlife monitors will be on duty at all times to ensure the security of the camp population. Proper waste handling will be enforced to minimize attraction of wildlife.

6 COMMUNICATIONS

6.1 AT FOX-3

During the project, communications will be maintained through the use of Skycom IP Services by Info Sat Communications. As a backup, two (2) hand-held satellite phones will be available at all times.

Mobile “walkie-talkie” radios will be supplied to maintain on-site communication between the DCC Site Engineer and the members of the contractor’s team.

6.2 DURING CAT-TRAIN

During the CAT-Train operation, bases will be set up at Longstaff Bluff (FOX-2), Nadluardjuk Lake (FOX-B) and FOX-3. A radio wave communication system will be implemented to constantly keep communication between the CAT-Train and each base. As a back up, hand held satellite phones will be available at all times.

7 TRAINING AND EXERCISES

The Site Superintendent and the Health and Safety Officer from the Biogenie team will have received the 40-hour OSHA HAZWOPER training, the OSHA 8-hour supervisor training, first-aid, and fire extinguisher training.

In addition to this training, all site personnel will participate in the Worker Orientation Seminar (WOS). This course will allow workers to identify substances of concern on the site, as well as the available protective gear and emergency response equipment. A Wildlife Monitor will also be part of the WOS to review bear hazards. The following information will be included as part of the WOS:

- Organization of response procedures.
- Lines of authority and communications to follow in a contingency situation.
- Specific response procedures to various contingency situations.
- Location of an emergency meeting point.
- Location of medical equipment and facilities.
- Location of spill response and protective equipment.
- Location and identification of potential hazardous material on-site.
- Procedures for reporting an incident.
- Emergency contact list.















During the course of the project, emergency response procedures will be revised during the weekly health and safety meetings.

APPENDIX A

Material Safety Data Sheets

CLEANUP AND RESTORATION OF THE DEW LINE SITE AT FOX-3









MATERIAL SAFETY DATA SHEETS

Item	Chemical Name	Hazard Classification		WHIMIS Label	Recovery Equipment	Personal Protective Equipment	Limit access in a perimeter (m)	ER Guidebook Reference (Orange Section)
		TDG Class	UN no.					
GASES								
1	Acetylene	2.1	1001	  	N.A.	<ul style="list-style-type: none">• Face shield• Welding gloves	100	116
2	Oxygen	2.2	1072	 	N.A.	<ul style="list-style-type: none">• Safety gloves<ul style="list-style-type: none">• Work gloves• Chemical protective clothing	100	122
3	Argoshield	2	1956		N.A.	<ul style="list-style-type: none">• Safety gloves• Work gloves• Chemical protective clothing	100	126
4	Propane	2.1	1075	 	N.A.	<ul style="list-style-type: none">• Safety gloves• Work gloves• Thermal protective clothing	100	115
FLAMMABLE LIQUIDS								
5	Acetone	3	1090	 	<ul style="list-style-type: none">• Absorbents• Extinguisher• 205 L open-top drum with liner• Shovel or heavy equipment	<ul style="list-style-type: none">• Half face mask with carbon cartridges• Nitril gloves• Goggles and splash shields	25	127
6	Kerosene(Petro sol 3355)	3	1223	 			50	128
7	Diesel Fuel	3	1202	 			25	128


MATERIAL SAFETY DATA SHEETS (cont.)

Item	Chemical Name	Hazard Classification		WHIMIS Label	Recovery Equipment	Personal Protective Equipment	Limit access in a perimeter (m)	ER Guidebook Reference (Orange Section)
		TDG Class	UN no.					

FLAMMABLE LIQUIDS (CONT.)

8	Fuel Oil (diesel additive)	3.3	1993	 	<ul style="list-style-type: none"> Absorbents Extinguisher 205 L open-top drum with liner Shovel or heavy equipment 	<ul style="list-style-type: none"> Half face mask with carbon cartridges Nitril gloves Goggles and splash shields 	25	128
9	Gasoline	3	1203	 			25	128
10	Hexane	3	1208	 			25	128
11	Jet A-1 Fuel	3	1863	 			25	128



OXIDIZERS

12	Ammonium Nitrate	5.1	1942		<ul style="list-style-type: none"> Shovel 205 L open top drum Extinguisher 	<ul style="list-style-type: none"> Coverall Nitril gloves 	25	140
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MATERIAL SAFETY DATA SHEETS (cont.)

Item	Chemical Name	Hazard Classification		WHIMIS Label	Recovery Equipment	Personal Protective Equipment	Limit access in a perimeter (m)	ER Guidebook Reference (Orange Section)
		TDG Class	UN no.					

MISCELLANEOUS DANGEROUS GOODS

16	Aluminum Sulphate	9.2	1760		<ul style="list-style-type: none"> • Acid Neutrilizer • Heavy duty plastic bags • 205 L open-top drum with liner 	<ul style="list-style-type: none"> • Nitril gloves • Coverall • Cover boot • Goggles and splash shields 	10	171
17	Polychlorinated Biphenyls (solid)	9.1	2315		<ul style="list-style-type: none"> • Shovel, tools, heavy equipmen • 205 L open top 16 gauge drum or steel container 	<ul style="list-style-type: none"> • Nitril gloves • Coverall • Cover boots 	10	171

MATERIAL SAFETY DATA SHEETS (cont.)

Item	Chemical Name	Hazard Classification		WHIMIS Label	Recovery Equipment	Personal Protective Equipment	Limit access in a perimeter (m)	ER Guidebook Reference (Orange Section)
		TDG Class	UN no.					

NON-HAZARDOUS MATERIALS

18	Diesel Engine Oil SAE 0W30	NA	NA	NA	<ul style="list-style-type: none"> • Absorbents • Heavy duty plastic bags or drum 	<ul style="list-style-type: none"> • Nitril gloves • Goggles and splash shields (impermeable suit) if required 	NA	NA
19	Heavy Duty Diesel Engine Oil 15W40	NA	NA	NA			NA	NA

MATERIAL SAFETY DATA SHEETS (cont.)

Item	Chemical Name	Hazard Classification		WHIMIS Label	Recovery Equipment	Personal Protective Equipment	Limit access in a perimeter (m)	ER Guidebook Reference (Orange Section)
		TDG Class	UN no.					

NON-HAZARDOUS MATERIALS

20	Diesel Engine Oil 10W30	NA	NA	NA			NA	NA
21	Diesel Engine Oil 15W40	NA	NA	NA			NA	NA
22	Ethylene Glycol	NA	NA	NA			NA	NA
23	Farm Tractor Lubricant	NA	NA	NA			NA	NA
	Crankcase Oil Heavy Duty 10W	NA	NA	NA			NA	NA
	Transmission Oil	NA	NA	NA			NA	NA
24	Gear Lubricant 75W90	NA	NA	NA			NA	NA

MATERIAL SAFETY DATA SHEETS (cont.)

Item	Chemical Name	Hazard Classification		WHIMIS Label	Recovery Equipment	Personal Protective Equipment	Limit access in a perimeter (m)	ER Guidebook Reference (Orange Section)
		TDG Class	UN no.					

NON-HAZARDOUS MATERIALS (CONT.)

	Lubricating Grease	NA	NA	NA			NA	NA
25	Grease	NA	NA	NA	<ul style="list-style-type: none"> Heavy duty plastic bags or drum 	<ul style="list-style-type: none"> Nitril gloves 	NA	NA
27	Hydraulic Oil AW32, 46, 68	NA	NA	NA	<ul style="list-style-type: none"> Absorbents Heavy duty plastic bags or drum 	<ul style="list-style-type: none"> Nitril gloves Goggles and splash shields (impermeable suit) if required 	NA	NA
29	Compressor Oil	NA	NA	NA			NA	NA
30	Chain Oil	NA	NA	NA			NA	NA
31	Two-stroke Oil	NA	NA	NA			NA	NA



EMERGENCY CONTACT LIST

RESOURCE	CONTACT/LOCATION	PHONE NUMBER
Site Phones		
	FOX-2 sat phone	
	FOX-2 camp	
	FOX-B sat phone	
	FOX-3 sat phone	
	FOX-3 Nasittuq camp	
Air Transportation		
Air Nunavut (MEDEVAC)	Air Ambulance Iqaluit	867-979-4018
Kenn Borek Air (MEDEVAC)	Iqaluit	867-979-0040
Helicopter Advanced Exploration Mining	Roche Bay site office Hall Beach Office	(604)-759-3432 (867)-928-8030
Canadian Helicopter	Hall Beach	705-494-6011 ext. 4832
	Iqaluit	709-686-2095
North Warning System Operations (Hall Beach)	Operation manager	867-928-8987 ext. 4822
Fire		
Local Fire Department	Iqaluit – Fire or medical emergencies	867-979-4422
	Hall Beach	867-928-8888
	Clyde River	867-924-6223
Police		
Police Department	Hall Beach	867-928-1111
	Clyde River	867-924-0123
Hospitals		
Hall Beach Health Center	Hall Beach	867-928-8827
Clyde River Health Center	Clyde River	867-924-6377
Baffin Regional Hospital	Iqaluit	867-979-7300
Environmental Emergency		
24-hour Spill Line	NWT/Nunavut	867-920-8130
Canadian Transport Emergency Centre (CANUTEC)	24 hour service	613-996-6666

EMERGENCY CONTACT LIST

RESOURCE	CONTACT/LOCATION	PHONE NUMBER
Environmental Emergency (cont.)		
Environment Canada	Jimmy Noble, Enforcement Officer Environment/Emergencies	867-975-4644
Department of sustainable development, Gov't of Nunavut	Robert Eno Manager Pollution Control and Air Quality Environmental Protection Service	867-975-5907
Qikiqtani Inuit Association	Officers available 24 hours	867-975-8419
INAC Water Resources	Iqaluit	Tel.: 867-975-4298 Fax: 867-979-6445
Health and Safety		
Workers' Compensation Board 24-hour Accident Reporting Line	Barron Building/1091 Box 669 Iqaluit, NU X0A 0H0	1-877-404-4407
Department of Human Resources	Qikiqtaaluk Region	1-800-682-9033
	Kivalliq Region	1-800-933-3072
Wildlife Management		
Nunavut Wildlife Management Board	P.O. Box 1379, Lot 924 Parnaivik Building Iqaluit, NU X0A 0H0	867-975-7300
Hunters and trappers association	Hall beach	867-928-8994
	Clyde River	867-924-6202
Heritage Resources		
Inuit Heritage Trust Incorporated	P.O. Box 2080 Iqaluit, NU X0A 0H0	867-979-0731
Management		
DCC Project Management Office	Ottawa	613-998-9548
	Stewart Dafoe (Manager Site Operations)	613-949-4511
	Patricia O Donnell (Contract coordinator)	613-990-2857
Biogenie S.R.D.C. Inc Project Management	Sylvain Laberge, Project Director	514-895-4517
	Montreal Office	450-961-3535
Biogenie Hall Beach	Office / Garage	867-928-8022