



Indigenous and
Northern Affairs Canada

Affaires autochtones
et du Nord Canada

Spill Contingency Plan

PROJECT ID: Gordon Lake Group Remediation Project

DATE OF SUBMISSION: August 4, 2016

SUBMITTED BY: Carey Ogilvie – Indigenous and Northern Affairs Canada (INAC)

SUBMITTED TO: Mackenzie Valley Land and Water Board



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1 Introduction

This Spill Contingency Plan (Plan) applies to the operations of Indigenous and Northern Affairs Canada (INAC; formerly Aboriginal and Northern Affairs Canada (AANDC)) – Contaminants and Remediation Directorate (CARD), through the Northern Contaminated Sites Program (CSP), and their contractors, conducted under the terms and conditions of the Gordon Lake Group (GLG) Remediation Project.

Although conceptual in nature, the Plan is being submitted in support of the Type “A” Land Use Permit application for the Project. A more comprehensive plan will be submitted by the successful Primary Remediation Contractor as part of their contract submittal process and in advance of their mobilization to site. This plan is considered as the minimum standard that submittals will be measured against.

1.1 Key Information

Table 1 presents key corporate information pertaining to CARD and the GLG Project sites.

Table 1 Key information pertaining to CARD and the Gordon Lake Group Remediation Project sites

Federal Department	Indigenous and Northern Affairs – Contaminants and Remediation Directorate																																																						
Contact Person	Alison Heslep Project Manager Telephone number: (867) 669-2769 Fax number: (867) 669-2715																																																						
Project Office Location	4923 52 nd Street Yellowknife, NT, X1A 2R3																																																						
Project Locations	<table border="1"> <thead> <tr> <th>Site</th> <th>Easting</th> <th>Northing</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>Burnt Island</td> <td>390583</td> <td>6994487</td> <td>63.063316</td> <td>-113.165136</td> </tr> <tr> <td>Camlaren</td> <td>388375</td> <td>6986147</td> <td>62.987838</td> <td>-113.203133</td> </tr> <tr> <td>Goodrock</td> <td>391626</td> <td>6990869</td> <td>63.031177</td> <td>-113.142138</td> </tr> <tr> <td>Kidney Pond</td> <td>381568</td> <td>6982743</td> <td>62.955158</td> <td>-113.334924</td> </tr> <tr> <td>Murray Lake</td> <td>378134</td> <td>6989336</td> <td>63.013144</td> <td>-113.407426</td> </tr> <tr> <td>Storm Property</td> <td>392362</td> <td>6987434</td> <td>63.000593</td> <td>-113.125360</td> </tr> <tr> <td>Treacy</td> <td>381077</td> <td>6981363</td> <td>62.942623</td> <td>-113.343596</td> </tr> <tr> <td>Try Me</td> <td>374546</td> <td>6995744</td> <td>63.069387</td> <td>-113.483110</td> </tr> <tr> <td>West Bay</td> <td>386382</td> <td>6977315</td> <td>62.908017</td> <td>-113.236380</td> </tr> </tbody> </table>					Site	Easting	Northing	Latitude	Longitude	Burnt Island	390583	6994487	63.063316	-113.165136	Camlaren	388375	6986147	62.987838	-113.203133	Goodrock	391626	6990869	63.031177	-113.142138	Kidney Pond	381568	6982743	62.955158	-113.334924	Murray Lake	378134	6989336	63.013144	-113.407426	Storm Property	392362	6987434	63.000593	-113.125360	Treacy	381077	6981363	62.942623	-113.343596	Try Me	374546	6995744	63.069387	-113.483110	West Bay	386382	6977315	62.908017	-113.236380
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1.2 Effective Date of Spill Contingency Plan

This Spill Contingency Plan is effective as of the above date of submission and will be adhered to once approved by the MVLWB. This Plan is considered to be a living document that will undergo review, at minimum, annually prior to the start of any site activities with additional reviews as warranted to reflect changes in operations, technology, chemicals or fuels, or as directed by the MVLWB. Any revisions to the plan will be submitted to the MVLWB for review and approval.

1.3 Revisions to the Spill Contingency Plan

Table 2 will be used to track reviews and revisions to the Spill Contingency Plan, and ensure that all stakeholders have the most up to date copy of the plan.

Table 2 Revision history of the Spill Contingency Plan

Version #	Contractor Approval	Date	Crown Approval	Date	Sections Revised	Comments	Revision Distribution Date
v.1	n/a	n/a	Alison Heslep Project Manager	August 4, 2016	n/a	First Approval	n/a

1.4 Purpose and Scope

The purpose of CARD’s Spill Contingency Plan is to provide a plan of action for unforeseeable spill events at the GLG Remediation Project sites. The Plan is intended to define the responsibilities of key response personnel and outline the course of action that will be implemented in order to minimize or prevent any possible effects to the environment. This document is considered to be the minimum standard for spill response that CARD requires of itself, and its contractors for the duration of the Project.

All personnel will be familiar with the Spill Contingency Plan and refreshed through separate or regular scheduled safety meetings. A copy of the Plan will be available to all departments involved. During the orientation meeting, training sessions are scheduled to ensure employees have an understanding of the steps to be undertaken in the event of a spill. All employees and contractors will be shown where spill kits are stored, be familiarized with their contents, and be trained in using spill equipment and responding to spills. CARD is committed to keeping personnel up to date on the latest technologies and spill response methods.

The Primary Contractor will be required to submit a Site Specific Health and Safety Plan (SSHSP) no later than 30 days after contract award to the Departmental Representative for review. The Spill Contingency Plan is considered a component of the SSHSP. The SSHSP will also include:

- A Statement of Contractor’s Safety Policy
- Safety Responsibilities of on-site personnel
- Safe Work Practices and/or Job Procedures



- Camp Rules and their enforcement
- Results of safety and health risk or hazard analysis for camp construction activities
- Procedures for cold weather survival, remote Work and general worker health and safety
- Procedures for confined space entry
- Emergency Response Plan
- Wildlife Management Plan
- Fire Safety Plan
- Details regarding the safe use of winter roads
- Site traffic rules
- Call-in Procedures
- Safety Incident Reporting Mechanism
- Medivac phone numbers
- Helicopter/Aircraft companies phone numbers
- Ice Monitoring and Safety Procedures (IMSP)

1.5 Environment, Health and Safety Policy

INAC's Environment, Health and Safety (EHS) Policy provides direction in order to meet the requirements of the Canada Labour Code, applicable territorial and federal environmental regulations and policies, and related policies of the Treasury Board in the implementation of the Northern CSP. The policy serves as an integral component of INAC's CSP and applies to all individuals involved with contaminated sites. Within the Northern CSP, the health and safety of employees and the protection of the environment are an overriding priority. Management is committed to doing everything possible to prevent injuries and to maintain a healthy environment. To this end:

- Senior managers are responsible for ensuring that all the requirements of the Environmental, Health and Safety (EHS) Policy are fully implemented.
- All managers and supervisors are responsible for ensuring that their employees are trained in safe work procedures, to undertake their assigned duties without accidents, injuries or harm to the environment, and for ensuring that employees follow safe work methods and all related regulations. This includes training on industry best practices, assessing and managing EHS risks, and the emergency spill response plan (outlined in the Spill Contingency Plan, to be provided by the Primary Consultant).
- All personnel are required to support and comply with the EHS program, making safety, health and protection of the environment a part of their daily routine, and ensuring that they follow safe work methods and relevant regulations.
- All personnel will be held accountable for implementing, and adhering to, the requirements of the EHS program.
- All personnel are accountable for reporting to their immediate supervisor any unsafe practices or areas in need of improvement. Personnel are further accountable for bringing such reports to the attention of higher levels in the organization, without fear of reprisal, if the situation is not addressed appropriately.
- All relevant territorial and federal laws, regulations, policies, and industry best practices including the requirements of INAC's CSP Management Framework, are incorporated into our program as minimum standards.



- Pollution prevention practices and programs to achieve continuous improvement will be implemented as an ongoing requirement of the program, and will include recycling when possible.
- Where a conflict arises due to different standards or requirements between different regulations or standards, the more stringent of the two will apply.

CARD also considers environmental protection to be a major concern in our activities and it is our policy to:

- Strive to comply with all applicable environmental laws, regulations and standards.
- Strive to conduct our activities and manage our operations in a manner that minimizes environmental impact by employing the best control mechanisms, processes, and procedures that have been proven technically sound and economically feasible.
- Measure our environmental performance against standards taking into account that which is known to us or apparent to us about environmental consequences of our activities, and going beyond lawful requirements when we know it to be essential to protect the environment.
- Strive to train our employees in environmental matters and responsibilities relating to their particular assignments.
- Periodically examine and evaluate our environmental protection activities to ensure policy implementation, and that appropriate procedures, programs, and systems are being applied.
- Encourage, support and conduct research and development activities to find solutions to technological problems.
- Strive to ensure that ecological considerations are properly identified and evaluated in our projects and long-range planning processes.
- Strive to support all levels of government in the promulgation of cost effective, sound environmental laws, codes, rules, and regulations, based on scientific facts and need.

1.6 Project Description

The GLG Remediation Project consists of nine mine and advanced exploration sites (Burnt Island, Camlaren, Goodrock, Kidney Pond, Murray Lake, Storm Property, Treacy, Try Me and West Bay) located 110 km northeast of Yellowknife around Gordon Lake, Northwest Territories (NWT), within the asserted Akaitcho Territory, homeland of the Weledeh people (Yellowknives Dene First Nations (YKDFN)) since time immemorial. The sites are also located in the Mowhì Gogha De Niitlèè boundary within the Wek'èzhìi management area of the Tlicho settlement area, the asserted Akaitcho Dene territory and traditional lands of the NWT Métis. The GLG sites are located northwest of the East Arm of Great Slave Lake, which falls into the Northwestern Boreal Uplands of Canada. Gordon Lake and surrounding sites are located in the Taiga Shield - Great Slave Upland Low Subarctic (LS) Ecoregion of the NWT. All nine sites fall under the custodial responsibility of INAC, and site remediation is coordinated by INAC's CARD.

The primary objective of this Project is to reduce, and where possible, eliminate the risk to the environment and human health caused by legacy environmental concerns from the nine abandoned mine and advanced exploration sites, to leave as minimal a presence in the area as possible, and to promote socio-



economic benefits to Aboriginal people and other northerners.

The Project is expected to span approximately three years (not including monitoring post remediation). Project activities will primarily be limited to the open water season, with the exception of Site mobilization and demobilization via a winter road (Tibbitt to Contwoyto Joint Venture (JV winter road)), and winter transportation of equipment and material on winter roads/spurs. Work will commence in December 2016 with a winter road survey and site access preparation, followed by the staging of camps and heavy equipment (February 2017 to March 2017), and initial remediation activities beginning in May 2017. Demobilization of equipment will commence in 2020.

A summary of the Project related activities for the GLG Remediation Project, including a project schedule, are provided in the Table 3. Note this schedule will be finalized by the Primary Contractor.

Table 3 Project related activities and schedule for the Gordon Lake Group Remediation Project

Site	Activity	Date
GLG sites	Site Preparation and Staging Material: <ul style="list-style-type: none"> • Winter road track survey • Site access preparation 	December 2016 to February 2017
Burnt Island, Camlaren, Kidney Pond, West Bay (and GD-37), Borrow Source GD-18 and Zenith and North Cabin	Mobilization: Staging Camps and Heavy Equipment; Construct Spur Roads Off JV Winter Road to Access Sites.	February 2017 to March 2017
Burnt Island, Camlaren, Zenith and North Cabin, Kidney Pond, West Bay (GD-37), Goodrock, Murray Lake, Storm Property and Try Me	Construct Road from Borrow Sources to Work Sites; Construct Staging Camps; Quarry Development; Construct Floating Docks and Barge Landing Areas; Commence TCSA and WRSCA Construction; Mobilize Helicopter Portable Excavator; Construct Kidney Pond Portal Seem Management system. Remediation Tasks: <ul style="list-style-type: none"> • Excavate, Stockpile and Consolidate Material; • Non-Hazardous Waste Collection; • Hazardous Waste Collection; • Wood Burning Activities. 	May 2017 to September 2017
Burnt Island, Camlaren, Zenith and North Cabin, Kidney Pond, West Bay, and Borrow Source GD-18	Construct Spur Roads Off JV Winter Road to Access Zenith Island. Remediation Tasks: <ul style="list-style-type: none"> • Transport borrow material to sites and stockpile; • Transport excavated materials and debris to sites for disposal; • Transport hazardous material off-site for disposal. 	February 2018 to March 2018
Burnt Island, Kidney Pond	Excavation and Disposal of On-Site Contaminated Soils; Shaft and Portal Capping; Trench Backfill and Grading; Construct Berms; and Monitor and Adjust Kidney Pond Portal system as required.	May 2018 to September 2018
Camlaren, GLG sites	Treat PHC Impacted Soil; Construct Cover Systems to Close WRSCA and TSCA; Demobilization of Equipment	March 2019 – Winter 2020



1.7 Site Description

All nine sites of the GLG Remediation Project are remote with no nearby inhabitants. Access to the sites in the summer is limited to fixed-wing aircraft on floats or helicopter. Winter access to the sites is via the Tibbitt to Contwoyto JV (Joint Venture) Winter Road that runs through the middle of Gordon Lake (north-south), connecting the Ingraham Trail (Highway 4) to the sites northeast of Yellowknife. Site maps are attached in Appendix A. Table 4 presents the coordinates for individual GLG site locations.

Table 4 Coordinates for Gordon Lake Group Remediation Project site locations - NAD_1983_UTM_Zone_12N.

Site	Easting	Northing	Latitude	Longitude
Burnt Island	390583	6994487	63.063316	-113.165136
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1.8 List of Hazardous Materials On-Site

Table 5 presents a list of anticipated hazardous materials that will be located on-site, the type of storage containers, the average and maximum quantities stored, and their storage location. All fuel container numbers and capacities are preliminary estimates. The Primary Contractor is required to provide a detailed list of all hazardous materials on-site, including amount normally stored and storage capacity, types and numbers of storage containers, storage location and MSDS's for each material to the Departmental Representative for review and approval.

Table 5 Anticipated on-site hazardous materials

Fuels	Yes/No	Number of Containers	Capacity of Containers	Location
Diesel	Yes	TBD	Bulk and/or drummed (205 L)	Will be provided by the Primary Contractor and subject to approval by INAC and the MVLWB
Gasoline	Yes	TBD	Bulk and/or drummed (205 L)	See Above
Aviation Fuel	Yes	TBD	Drummed (205 L)	See Above
Propane	Yes	TBD	100 lb tanks	See Above
Other	Yes	TBD	100 lb tanks	See Above



2 Responding to Spills

2.1 Response Organization

This section is intended to identify response personnel (e.g. On-scene Coordinator, Environmental/Safety Advisor, Field Operations Supervisor, etc.), their duties, on or off-site work locations and contact information, including 24-hour telephone numbers for those responsible for activating the plan. The Primary Contractor will supplement this information with a flowchart depicting communication lines and the response duties of each member of the response team. As this Project occurs in remote areas, a summary of available communication equipment will also be provided.

At a minimum, the response organization will consist of the following:

- If any personnel encounter a spill or unauthorized discharge, that person shall immediately report the situation to their on-site Site Supervisor and take action to stop or contain the spill, if it can be done safely.
- The Site Superintendent is responsible for supervising all spill cleanups. The Site Superintendent is required to assess the magnitude of release and subsequently classify the spill as per “Schedule 1 of INAC Spill Reporting Protocol for Mining Operations in the Northwest Territories and Nunavut Regulated by the Department of Indian and Northern Affairs” (Schedule 1).
- The Project Superintendent will also be notified immediately.
- The Client is then to be notified of any spill. If the spill is reportable, the reportable spill (Schedule 1) will be immediately reported to the NWT/Nunavut 24 hour emergency spill hotline at (1-867-920-8130).
- All other spills will be logged internally and available for review by inspectors upon request.



The first person on the scene **MUST**:



The Site Superintendent is responsible for implementing the Spill Response Action Plan. The persons responding to the spill shall:

- Proceed to the emergency location,
- Access the situation,
- Not take any unnecessary risks,
- Arrange for first aid and removal of injured personnel,
- Coordinate equipment support to the location, and
- Liaise with emergency response personnel regarding containment, recovery, and disposal procedures.

Several government departments are available with expert advice to assist in the decision-making, where environmental considerations are of concern.

2.2 Action Plan

This section outlines the procedures and steps that would occur in the event of a spill or unauthorized discharge. In all cases, environmental monitoring is a vital and extremely important aspect of any spill or unauthorized discharge. It ensures that the emergency response team has acted correctly and that the action plan has been effective. Sampling of liquid, soil, and vegetation from any seepage or spill area is



required to determine contaminant levels, if any. Once a spill is terminated and or contained, the same area will be monitored on a regular basis until results conclude that levels are below prescribed limits. The Site Superintendent is required to tabulate results and prepare the Detailed Spill report, required within (30) days of any spill.

As a component of the Spill Contingency Plan, the Primary Contractor is required to provide detailed procedures and steps that would occur in the event of a spill or unauthorized discharge for all hazardous materials. The Primary Contractor will also be required to list all hazardous materials, potential discharge events, potential discharge volumes (worst case scenario in brackets) and direction of potential discharge. Below are examples of procedures outlined for a diesel fuel spill, gasoline spill, lubricating or hydraulic oil spill, waste oil spill and sewage spill.

A. Diesel Fuel Spill

- i. Initial Response:* The Sites Superintendent, or their designate, shall be advised of the incident and a response initiated. **ELIMINATE** ignition sources and any open flame. **STOP** the flow of product. **CONTAIN** the flow of oil by dyking with earth or other barrier, blocking any entry to waterways, construction of an oil interceptor trench or underflow dam, etc. If any spill has reached natural waters, deploy a containment boom and apply oil absorbent materials. The spill report will be filed with the 24 hour Spill Line by the Sites Superintendent or his designate.
- ii. Recovery:* Recover as much free product as possible by pumping into drums or portable tanks. Excavate any contaminated soils/snow and dispose of at an approved sites. Diesel fuel spilled on water can be recovered by using skimmers or absorbent booms.
- iii. Fire Response:* Use CO₂, dry chemical, foam or water spray (fog). Use water to cool tanks. Divert the fuel to a secure area for controlled burning. If diesel fuel is escaping, get it contained as soon as possible.
- iv. Properties:* Chemical composition hydrocarbon C₉ to C₁₆. Clear to yellow with hydrocarbon odour. Diesel fuel will float on water. Flash point of diesel fuel is >52°C.
- v. Environmental Concerns:* Diesel fuel is toxic to fish and other aquatic organisms and harmful to waterfowl.
- vi. Containers:* Diesel fuel is transported to the sites by winter road and transported to various storage tanks at the sites.
- vii. Personal Protection:* Wear impervious chemical resistant clothing, gloves, footwear and goggles. For confined spaces SCBA may be required. Avoid contact with strong oxidizers such as sulphuric acid and peroxides.

B. Gasoline Spill

- i. Initial Response:* The Sites Superintendent, or their designate, shall be advised of the incident and response initiated. **ELIMINATE** ignition sources and any open flame. **REMOVE** all personnel not involved with the incident from the area. **STOP** the flow of product. **CONTAIN** the flow of gasoline by dyking with earth or other barrier, blocking any entry to waterways, construction of an oil interceptor trench or underflow dam, etc. If spill has



- reached natural waters, deploy a containment boom and apply oil absorbent materials or leave to evaporate. Gasoline contains benzene a suspected carcinogen. Avoid breathing vapours, and if necessary, obtain an organic vapour cartridge full-face piece respirator or wear SCBA. The Spill Report will be filed with the 24 hour Spill Line by the Sites Superintendent or his designate.
- ii. Recovery:* Conduct regular explosive atmosphere monitoring with an intrinsically safe instrument.
 - iii. Instrument.* Recover as much free product as possible by pumping into drums or portable tanks. Free product recovery operation should utilize an explosion proof pump and all equipment involved in the transfer must be properly grounded. Excavate any contaminated soils/snow and dispose of at an approved sites. Gasoline spilled on water can be recovered by using skimmers or absorbent booms or left to evaporate. When excavating gasoline-contaminated soils/snow, consider using a layer of compression foam to reduce the potential of explosion arising from sparks caused during excavating.
 - iv. Fire Response:* Use CO₂, dry chemical, foam, or water spray (fog). Use water to cool tanks. Divert the gasoline to a secure area for controlled burning (upon approval). If gasoline is escaping, get it contained as soon as possible.
 - v. Properties:* Chemical composition hydrocarbon C₄ to C₁₂ range. Light green, clear, amber colour liquid with hydrocarbon odour. Gasoline floats on water. Gasoline has a Flash Point of -40°C. Vapours and product are highly flammable and explosive. Vapours are heavier than air.
 - vi. Environmental Concerns:* Gasoline is toxic to fish and other aquatic organisms and harmful to waterfowl.
 - vii. Containers:* Transported to the sites in drums or tanker truck and transferred to a single storage tanks situated on the north side of the Maintenance shop / warehouse at the sites.
 - viii. Personal Protection:* Wear impervious chemical resistant clothing, gloves, footwear and goggles. For confined spaces SCBA may be required. Eliminate all sources of ignition. Restrict access and work upwind from spilled product. Avoid contact with strong oxidizers such as sulphuric acid and peroxides.

C. Lubricating or Hydraulic Oil Spill

- i. Initial Response:* The Sites Superintendent, or their designate, shall be advised of the incident and response initiated. **ELIMINATE** ignition sources and any open flame. **STOP** the flow of product. **CONTAIN** the flow of oil by dyking with earth or other barrier, blocking any entry to waterways, construction of an oil interceptor trench or underflow dam, etc. If spill has reached natural waters, deploy a containment boom and apply oil absorbent materials. The spill report will be filed with the 24 hour Spill Line by the Sites Superintendent or his designate.
- ii. Recovery:* Recover as much free product as possible by pumping into drums or portable tanks. Excavate any contaminated soils/snow and dispose of at an approved sites. Lubricating and hydraulic oils spilled on water can be recovered by using skimmers or



absorbent booms. Use absorbent pads or granular absorbents for minor spills.

- iii. *Fire Response:* Use CO₂ dry chemical, foam or water spray (fog). Water may spread fire. Use cool water to cool containers. Divert the oil to a secure area and allow to burn under control. If oils are escaping, get it contained as soon as possible. Wear SCBA and eye protection.
- iv. *Properties:* Chemical composition mixture of hydrocarbons and conventional industrial oil additives C₂₂ to C₆₁ range. Light and dark amber colours with hydrocarbon odour. Floats on water. Flash Point 190°C to 215°C.
- v. *Environmental Concerns:* Lubricants and hydraulic oil are toxic to fish and other aquatic organisms, harmful to waterfowl. Lubricants and hydraulic oil will foul riverbanks, shorelines, etc.
- vi. *Containers:* Transported to the sites by drums and tanker trucks and transferred to various storage locations at the sites. Products stored in various size containers up to 205 Litre drums.
- vii. *Personal Protection:* Wear impervious chemical resistant clothing, gloves, footwear and goggles. The use of an organic cartridge respirator will not likely be required. Avoid contact with strong oxidizers such as sulphuric acid, bleaches and peroxides.

D. Waste Oil Spill

- i. *Initial Response:* The Sites Superintendent, or their designate, shall be advised of the incident and response initiated. **ELIMINATE** ignition sources and any open flame. **STOP** the flow of product. **CONTAIN** the flow of oil by dyking with earth or other barrier, blocking any entry to waterways, construction of an oil interceptor trench or underflow dam, etc. If spill has reached natural waters, deploy a containment boom and apply oil absorbent materials. The spill report will be filed with the 24 hour Spill Line by the Sites Superintendent or his designate.
- ii. *Recovery:* Recover as much free product as possible by pumping into drums or portable tanks. Excavate any contaminated soils/snow and dispose of at an approved sites. Waste Oil spilled on water can be recovered by using skimmers or absorbent booms. Use absorbent pads or granular absorbents for minor spills.
- iii. *Fire Response:* Use CO₂ dry chemical, foam or water spray (fog). Water may spread fire. Use cool water to cool containers. Divert the oil to a secure area and allow to burn under control. If oils are escaping, get it contained as soon as possible. Wear SCBA and eye protection.
- iv. *Properties:* Chemical composition mixture of hydrocarbons and conventional industrial oil additives C₂₂ to C₆₆ range. Black and brown colours with hydrocarbon odours. Waste oil floats on water. Waste oil has a Flash Point of 100°C to 200°C.
- v. *Environmental Concerns:* Waste oil is toxic to fish and other aquatic organisms, harmful to waterfowl. Waste oil will foul riverbanks, shorelines, etc.



- vi. *Containers:* Transported to sites by oil company truck and transferred to various storage locations at the sites. Products stored in various size containers up to 205L drum.
- vii. *Personal Protection:* Wear impervious chemical resistant clothing, gloves, footwear and goggles. The use of an organic cartridge respirator will not likely be required. Avoid contact with strong oxidizers such as nitric acid, sulphuric acid, chlorine and peroxides

E. Sewage Spill

- i. *Initial Response:* The Sites Superintendent, or their designate, shall be advised and a response initiated. Initiate shut down procedures to **STOP** the flow of sewage and commence repairs.

CONTAIN the sewage sludge by dyking with earth, sand bags, snow or other barrier, blocking any entry to waterways. Construct an interceptor trench or direct flow towards a low area away from water. If the spill has reached natural waters, try to prevent additional material from entering the water. Construct a berm if required. Use earth-moving equipment to complete repairs to containment dam. Secure the sites and prevent non-authorized entry. The spill report will be filed with the 24 hour Spill Line by the Sites Superintendent or his designate.

- ii. *Recovery:* Sewage recovered with a vacuum truck or other means of recovery, may be placed in the approved sewage lagoon or sewage treatment plant. Contaminated soil or snow excavated may be placed in the approved sewage lagoon or sewage treatment plant. The contaminated area is to be covered with lime to neutralize the affected area. If the spill is in a residential area, notify residents of the spill and post signs.
- iii. *Fire Response:* Use dry chemical, foam or water spray (fog). Use water to cool tanks.
- iv. *Properties:* Sewage is a mixture of human waste and wash water. Fecal coliforms are present.
- v. *Environmental Concerns:* Human health concerns related to the presence of disease causing organisms potentially contained in the sewage.
- vi. *Containers:* Sewage is contained in holding tanks at the camp and shop and transferred to the sewage lagoon using the vacuum truck.
- vii. *Personal Protection:* When working with sewage, personnel are required to wear rubber boots, full slicker suit, rubber gloves and a full-face shield. Avoid contact with skin, clothing and do not get into eyes. Wash thoroughly after handling. Shower after the completion of your work. Refrain from eating and smoking until after completing wash up.

3 Spill Resource Inventory

This section is intended to describe all resources available for responding to spills. This includes personnel and an inventory of and location of clean up materials, tools and equipment. The Primary Contractor will include, at minimum, comprehensive details on the below categories, within the Spill Contingency Plan, as part of the Site Specific Health and Safety Plan and submit to the Departmental Representative for approval.



3.1 On-Site Resources

On-site resources may include spill kits, booms, sorbent materials, earth moving equipment, etc. This section must include the location and quantity of these resources on a map. Typical spill kits generally include:

- 4 tyvek splash suits
- 4 pairs of chemical master gloves
- 10 large bags with ties for temporary use
- 2 oil only booms (5" x 10')
- 50 oil only mats (16" x 20")
- 5 sorbent socks
- 10 sorbent pads
- 2 large tarps
- 1 roll duct tape
- 1 utility knife
- 1 field notebook and pencil
- 1 rake
- 1 pick axe
- 3 aluminium scoop shovels
- 1 instruction binder

3.2 Off-Site Resources

Off-site resources require detailed instructions on how to obtain such resources. This includes contact number for deploying off-site resources and an estimate of how long it will take to deploy them. If spill response is primarily reliant on an off-site contractor, a written contract, mutual aid agreement or memorandum of understanding is strongly advised to ensure timely access to clean-up equipment.

All the contacts listed below could reach the site in two hours at a minimum. However, realistically government officials would not be able to reach the site until the next business day, depending on the severity of the spill.

- NWT 24-Hour spill line: (867) 920-8130
- Indian and Northern Affairs Canada Inspector: (867) 669-2761
- Environment Canada (Emergency) Yellowknife: (867) 669-4725
- GNWT Environmental Protection Division: (867) 873-7654
- GNWT Environmental Health Office: (867) 669-8979
- RCMP (Yellowknife): (867) 669-1111
- Medivac (Yellowknife): (867) 669-4115
- Great Slave Helicopters (Yellowknife): (867) 873-2081
- Air Tindi (Yellowknife): (867) 669-8218 or 669-8200
- Arctic Sunwest (Yellowknife): (867) 873-4464

The Primary Contractor must also include a company 24-hour emergency line.



4 Training Program

As planning for an emergency situation is imperative due to the materials stored on-site and the remoteness of the site, an employee and contractor training program will be prepared. The employee and contractor training program will be developed by the manager of environmental health and safety, and disseminated by the camp manager. The training program is required to include the following, but not limited to:

- All individuals entering the site are required to participate in an orientation session.
- All locations of the spill plan and spill kits are provided on a map in hard copy.
- An overview of the plan is provided by the camp manager leading the orientation session.
- Specific training sessions, including mock spill exercises, are scheduled for individuals directly involved in handling hazardous materials to ensure they know all steps to be undertaken in handling these materials, as well as the steps involved in the event of a spill, including the proper use of spill kits.
- All employees and contractors are required to have their basic first aid training, as well as WHMIS training, before working on the site.
- Supervisors are required to have advanced level first aid training, as well as transport of dangerous goods training.

5 General Contingency Planning

As previously stated in Section 1.4, the Primary Contractor will be required to submit a Site Specific Health and Safety Plan (SSHSP) no later than 30 days after contract award to the Departmental Representative for review. The Spill Contingency Plan is considered a component of the SSHSP.



Appendix A

Site Map

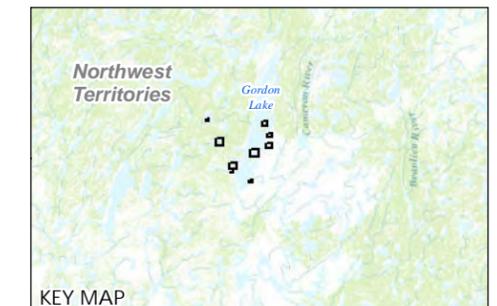
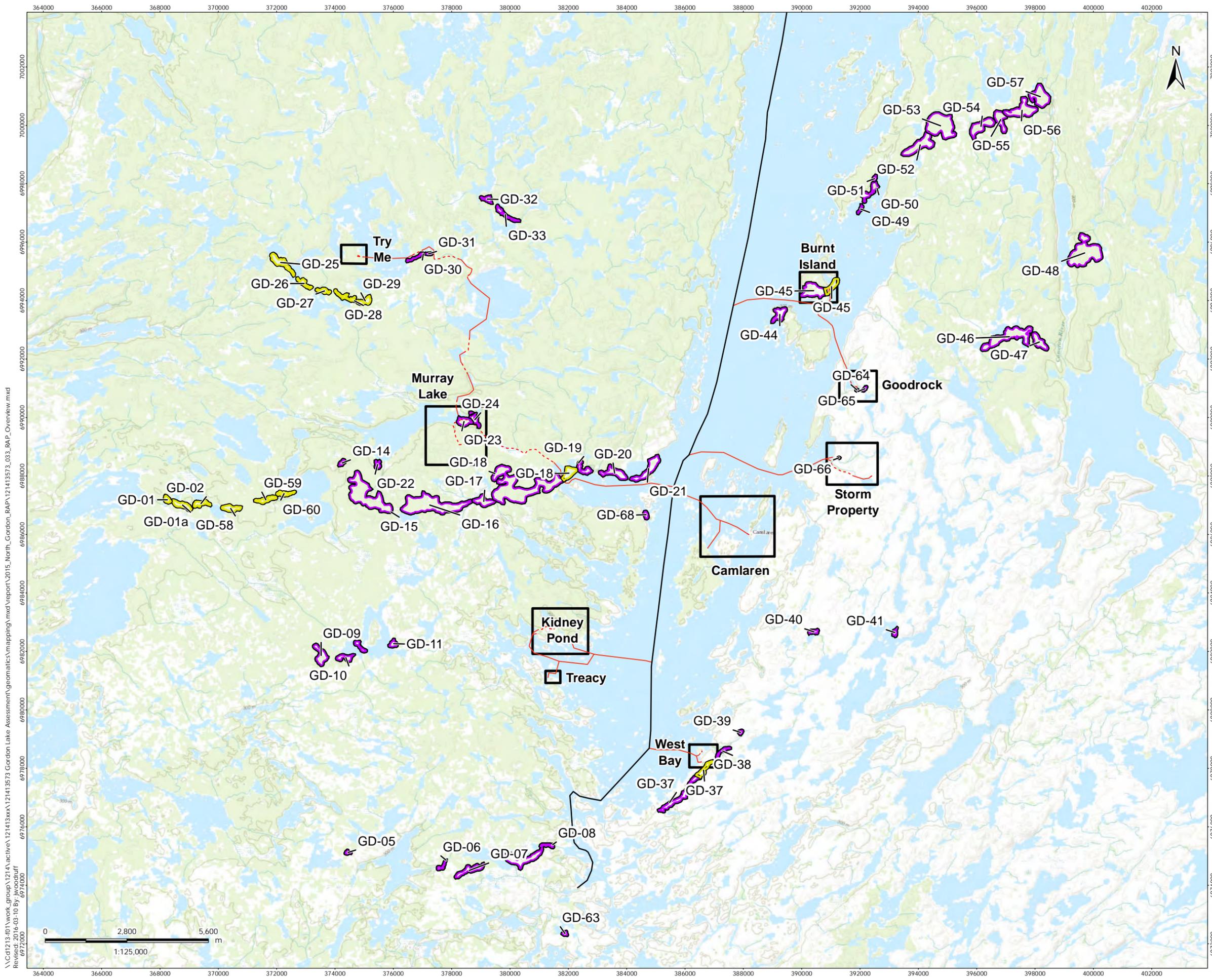


Indigenous and
Northern Affairs Canada

Affaires autochtones
et du Nord Canada

Legend

- - - Over Land Road Section
- Over Water Road Section
- Tibbitt To Contwoyto Winter Road
- Potential Borrow Sources
- Potential Borrow Areas Assessed
- Mine Site Location



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 12N
 2. Basemapping: CANVEC © Department of Natural Resources Canada. All rights reserved.
 3. Geonames from GeoBase®, Downloaded March 2013.
 4. Orthoimagery © MapMart, 2011.
 5. Not all features included in the legend are visible within the map extent

March 2016
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Client/Project
Public Works and
Government Services Canada
Gordon Lake Group Remedial Action Plan

Figure No.
1
Title

**Gordon Lake Group
Site Locations**

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 Revised: 2016-03-10 By: jwoodruff